

Since 1980, the media landscape is being transformed by the adoption and use of new media technologies, by digitization, technological convergence, mobile devices and the development of web 2.0 services and social media. Especially in the Western world, we now have unprecedented access to media content, on any device, anywhere and at any time. We have entered an age of screens, an age of abundance and an age of interactivity and participation. Instead of consuming content, everyday internet users have the tools to become active participants themselves. By creating, uploading and sharing user-created content, amateurs are pushing the boundaries of traditional consumer/producer relations. Online all consumers have become producers of content.

Or have they?

In the history of media, all introductions of 'new' media are accompanied by both utopian and dystopian discourse on the impact they will have on our society. Also the introduction of the internet is still leading to debates on its influence on our identities, social relations, privacy, security, and mental wellbeing. But, if we want to be able to assess the implications of these developments with care and common sense, it is important to put current developments into perspective, uncover the behaviour of people and see to what extent their activities differ from previous ones. This dissertation explores the ways in which user roles and traditional consumer/producer relations in the media sector have changed since the adoption and deployment of computers and the internet.



Mijke Slot is lecturer at the Erasmus School of History, Culture and Communication of Erasmus University Rotterdam and researcher at the Erasmus Research Centre for Media, Communication and Culture. During her dissertation research, Mijke was employed by the Faculty of Philosophy at Erasmus University Rotterdam and TNO in Delft. She started her dissertation research under the wings of the Freeband B@Home project. Currently she expands her dissertation research by focusing on the creativity of teenagers online.



The Extended Media Consumer. Online media consumption, production and use in an age of participation.

Mijke Slot

The Extended Media Consumer

Online media consumption, production and use
in an age of participation

DISSERTATION

Mijke Slot
2013



THE
E X T E N D E D
MEDIA CONSUMER

Online media consumption, production and use
in an age of participation

Mijke Slot

2013



This dissertation research was conducted as part of the Freeband project B@Home, funded by the Dutch Ministry of Economic Affairs (BSIK-program) and TNO at the Faculty of Philosophy, Erasmus University Rotterdam.



This work is published in 2013 under an *Attribution-NonCommercial-ShareAlike 3.0 Unported license* (CC BY-NC-SA 3.0)

<http://creativecommons.org/licenses/by-nc-sa/3.0/>



ISBN number 978-1-291-53296-8

The Extended Media Consumer

Online media consumption, production and use
in an age of participation

De veelzijdige mediaconsument

Online media consumptie, productie en gebruik
in een tijdperk van participatie

Thesis

to obtain the title of Doctor from the
Erasmus University Rotterdam
by command of the
rector magnificus
prof.dr. H.G. Schmidt

and in accordance with the decision of the Doctorate Board.
The public defense shall be held on

Thursday 3 October 2013 at 13.30 hours

by

Mijke Slot
born in Ede



Promotion committee:

Promotor: Prof.dr. V.A.J. Frissen

Second reader: Dr. A. Leurdijk

Other members: Prof.dr. J. Jansz
Prof.dr. J. de Mul
Prof.dr. P.W.M. Rutten

Acknowledgements

In my *Communication Technologies and Impacts* course at the International Bachelor of Communication and Media in Rotterdam, I ask my students to partake in an experiment. They have to refrain from using media technologies for 24 hours, and report about their findings. A whole day without their laptops, smartphones, music through Spotify, Youtube and Facebook... for many of them, this experience is confrontational. They suddenly realize to what extent these devices, apps and connections have become an integral part of their lives and habits. The majority does not finish the experiment; they cannot resist the power of push-messages or are seized by 'fomo', the *fear of missing out*. They are expected to be online and responsive 24/7 by their families, peers, employers and university professors. They get bored or lost. But some of them also experience a feeling of great relief – it feels like being on holidays. During their media-free time, they reconnect with friends without the distraction of smartphone messages, or spend time painting, cooking or visiting relatives. These experiences underline the complete integration of media in our society, and give legitimacy to researching this subject. This dissertation is one step in exploring this extensive and extended media use of people.

During the research and writing phase of this dissertation, I was very lucky to have an extended social network for support. Many people have provided the moral, social, professional or functional foundations for this work. I would like to thank my dear colleagues and friends from both Erasmus University Rotterdam, TNO and beyond, my students, and the people and organizations such as Habbo who voluntarily donated part of their time to participate in this research. I would like to thank the Freeband B@Home project, the Faculty of Philosophy of Erasmus University Rotterdam and TNO for funding and facilitating this project. Pieter Ballon, you identified the significance of changing user/producer relations at the start of the B@Home project. Marc van Lieshout, Jeroen Heres and Jeroen Jansz, I appreciate it that you kept reminding me of the necessity to finish this dissertation during various stages of the process. Marc Verboord thank you for your reassuring advice in the final stage of my dissertation. Andra Leurdijk, my pleasantly critical second reader, thank you so much for your feedback on my draft. I am grateful to the doctoral committee of this thesis for the time they have put in critically evaluating my work. My two 'paranimfen', Renée en Wouter – you have been a great support. And of course my friends, my family and my love – thank you all for making this journey not only possible, but also pleasant.

Finally, I owe a very, very special thanks to two extraordinary women: Susanne, without your confidence I would never have started on this endeavor, and Valerie, without your subtle guidance, reflections on my work and moral support, I would never have finished it. I could not have wished for a better supervisor. You both are a great source of inspiration for me, and I look forward to keep working with you in the future.

The best is yet to come!

Mijke

Table of contents

1	INTRODUCTION: EXPLORING ONLINE USER PRACTICES	12
1.1	A changed landscape for media companies	12
1.2	Changes in media use	14
1.3	The B@Home project	16
1.4	Changing relations between consumers and producers	16
1.5	User participation and the devaluation of culture	20
1.6	Extended consumers	24
1.7	Key concepts	26
1.8	Chapter outline	30
2	HISTORICAL TRANSFORMATIONS IN THE MEDIA SECTOR	34
2.1	1983: the personal computer is man of the year	35
2.2	The development of the traditional media sector in a nutshell	36
2.3	The traditional organization of the media sector; a value chain	37
2.4	Transformations in the media sector	42
2.5	Transitions in the music industry	47
2.6	Transitions in the photo, film and video domain	55
2.7	Transitions in broadcasting	61
2.8	Transitions in the press domain	69
2.9	Transitions in the games sector and social networking	78
2.10	Conclusion: user roles and user/producer relations today	83
3	TOWARDS A CONCEPTUAL FRAMEWORK	90
3.1	Users as audience	93
3.2	Users as consumers and influencers of technological change	102
3.3	Users as participants	115
3.4	Various levels of user/producer relations	123

3.5	Conclusion: building a bridge between different approaches?	129
4	ANALYZING POSSIBLE USER ROLES IN MEDIA SERVICES	138
4.1	Methodology: quantitative content analysis of online services	139
4.2	Characteristics and the value proposition of online media services	147
4.3	Possible user roles in online media services	148
4.4	User roles in perspective	161
4.5	Producer roles in online media services	165
4.6	Producer roles in perspective	175
4.7	The technical architecture and financial arrangements	176
4.8	Technical architecture and financial arrangements in perspective	180
4.9	Conclusion: a wide variety of opportunities	181
5	ACTUAL USER PRACTICES IN ONLINE MEDIA SERVICES	186
5.1	Methodology: online user survey	186
5.2	Media use and user types	191
5.3	Offline media entertainment use	198
5.4	Online media use	203
5.5	Offline versus online media use	221
5.6	Financial and technical arrangements	227
5.7	Users' opinions on user roles and user/producer relations	230
5.8	Conclusion: the extended consumer	232
6	USER ROLES AND USER/PRODUCER RELATIONS IN HABBO	238
6.1	Methodology: Habbo case study	238
6.2	Habbo	245
6.3	Value proposition	247
6.4	User roles in Habbo	251

6.5	Habbo's technical arrangements	259
6.6	Habbos financial model	262
6.7	Conclusion: a dynamic relationship	267
7	CONCLUSION: THE EXTENDED MEDIA CONSUMER	272
7.1	Outline	273
7.2	The diversification of user roles	274
7.3	Extended media consumers	277
7.4	The relationship between users and producers online	281
7.5	Final remarks and possible directions for future research	284
	REFERENCES	289
	PREVIOUS PUBLICATIONS	312
	LIST OF FIGURES AND TABLES	315
	APPENDIX 1: QUANTITATIVE CONTENT ANALYSIS: SERVICES	319
	APPENDIX 2: QUANTITATIVE CONTENT ANALYSIS CODE BOOK	327
	APPENDIX 3: USER SURVEY	355
	APPENDIX 4: HABBO SURVEY (DUTCH)	361
	SUMMARY: THE EXTENDED MEDIA CONSUMER	365
	SAMENVATTING: DE VEELZIJDIGE MEDIACONSUMENT	371
	ABOUT THE AUTHOR	377

1 Introduction: exploring online user practices

"The Consumer is the internet's most recent casualty. We have often heard that internet puts power in the hands of the consumer, but this is nonsense -- 'powerful consumer' is an oxymoron. (...) In changing the relations between media and individuals, the internet does not herald the rise of a powerful consumer. The internet heralds the disappearance of the consumer altogether, because the internet destroys the noisy advertiser/silent consumer relationship that the mass media relies upon. The rise of the internet undermines the existence of the consumer because it undermines the role of mass media. In the age of the internet, no one is a passive consumer anymore because everyone is a media outlet." (Shirky, 2000)

Digitization, convergence and the diffusion, adoption and use of new media technologies have changed the media landscape. With rapid speed, new media technologies such as computers with internet connection, smartphones and tablets have become ubiquitous and pervasive, and, for many people, an integral part of their daily lives (Silverstone & Hirsch, 1992; Mansell & Silverstone, 1996; Mansell, 1996; Frissen, 2004; Lievrouw & Livingstone, 2006; OECD, 2007; K ung, Picard & Towse, 2008). Because of digitization and technological convergence, all sorts of digital media content (text, images, video and sound) can be accessed on one single device. The audience does not need a radio to listen to music, a newspaper subscription to read the news or a television to watch television programmes. One gadget, for example a tablet or a smartphone, can hold all the functions of previously separate media, and allows media consumers access to content wherever they are, at any time of the day. This dissertation explores these changes in the media landscape and the implications of these changes for user roles and traditional consumer/producer relations in the media sector.

1.1 A changed landscape for media companies

Although digitization and convergence are primarily seen as technological processes, both can have implications for the organization and operation of media companies and existing consumer/producer relations (Bolin, 2010; Jenkins, 2006). On the one hand, technologies and networks provide incumbents in the media sector with a new strategic environment. They gain new production and distribution methods and ways to (internationally) expand their businesses. Doyle points in this respect to a new era of consolidation and globalisation, with expansion and mega-mergers (Doyle, 2002).

Existing media companies seize the opportunities to establish an international online presence, and intensify the fight for the attention of the audience. Many media companies start or acquire websites. Disney, for example, owns sites such as Disney Online, ABC news, Club Penguin (a social networking and game site for children), Hulu (a video streaming website) and several apps for mobile phone and tablet. News Corp, the media company of Rupert Murdoch, owns MySpace and Game Spy (a network of gaming sites). CBS owns (among other things) popular music site Last.fm. The internet enables these media companies to strengthen their economy of scope, and establish an online presence.

But at the same time, the developments lower the thresholds for new entrants to the media sector (Küng, 2008). In addition to traditional incumbents, online start-ups emerge. These new companies provide increased competition to existing and more traditional media companies. These companies mostly provide platforms for internet users to get access to a large array of media content and networks. Some of them, for example Google, Facebook and Yahoo!, are proving very successful in terms of audience popularity and financial value. They grow fast and generate a lot of profit. For example, in 2012, the estimated worth of social networking site Facebook, with approximately 1 billion active users, was more than 100 billion Dollars (Mac, 2012). And in the first quarter of 2012, Google, mostly known for its search engine, made a profit of 2.9 billion Dollars (BBC, 2012). In addition to these large new media companies, many small online start-ups try to provide added value to internet users. Furthermore, companies that in origin primarily focussed on another sector (for example technology-oriented companies such as Apple and Nokia) also use the internet to offer content or platforms for content. iTunes, introduced by Apple in 2001, serves as an online store for users to purchase and manage media content for iPods, iPhones and iPads. These new entrants in the media sector become competitors to existing companies for a share of the audience's attention, or they provide platforms and serve as brokers for media content created by others.

Over the years, the number and variety of media and the content that is available for the public have expanded drastically. This has provided existing media companies with a changed strategic playing field, increased competition, new business challenges and opportunities. But not only the number of media technologies and the volume of media content have increased; also the relation between media producers and their consumers has diversified. This has also been referred to as a process of convergence – not in the sense of technological convergence, but in the sense of fading boundaries between consumers and producers (Jenkins, 2006; Deuze, 2007). This shift in consumer

and producer relations is highlighted in Shirky's quote at the beginning of this introduction. It is a shift that has spurred a lot of societal and academic debate in the past years and which is the central topic of this dissertation.

1.2 Changes in media use

Especially in the Western world, developments in information and communication technologies have enabled people to change their media consumption habits. Eurostat statistics show that in 2011, 73 per cent of the European households have internet access¹. In northern European countries such as Sweden, Denmark, Finland and the Netherlands, internet access is highest. In the Netherlands, for example, 94 per cent of the households have internet access, and 86 per cent of internet users go online every day. Half of all internet users can also access the internet through their smartphone (Centraal Bureau voor Statistiek [CBS], 2012). Statistics provided by the Pew Internet and American Life Project show that in February 2012, 80 per cent of the American adults use the internet.² In Asia, the Middle East and Africa, internet usage is much lower, with exceptions for countries such as Japan (80 per cent), South Korea (83 per cent) and Singapore (77 per cent) (www.internetworldstats.com). The above statistics show that in less than 25 years the internet has been adopted by a large part of the population.

The shift in consumer and producer roles is enabled by communication technologies. New communication technologies offer the audience ways and tools to become active themselves. One of the main characteristics of new media and the largest difference between traditional mass and new online media is the latter's possibilities for interactivity (Frissen & De Mul, 2000³; McMillan, 2002). Interactivity is a common concept used in human communication studies, but has since the 1990s also been used to describe the interaction people have with or by means of media technologies (Downes & McMillan, 2000). Interactivity can be defined as both a property of technology and as activity (Jenkins, 2006). An important factor in the discussion of interactivity is the concept of control. Through online media technologies, users not only have the control to decide at what time they read or watch content, or to what

1 Retrieved from http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Information_society_statistics_at_regional_level

2 Retrieved from <http://www.pewinternet.org/Static-Pages/Trend-Data-%28Adults%29/Whos-Online.aspx>

3 According to Frissen and De Mul (2000), the five characteristics of the internet are: multimediality, interactivity, virtuality, connectivity and the transformation of time and space.

extent they are active, but also whom they are interactive with (Shapiro, 1999; McMillan, 2002). The traditional consumer/producer relation in media is based on one-way communication; the level of receiver control is limited and the direction of communication is one-way. In this model, interactivity is low. In online media services, various levels of interactivity are distinguished by McMillan. Online users can, for example, provide the sender of a message with feedback. The level of receiver control in feedback is high, while the direction of communication is still primarily one-way. One step further, in two-way communication, users can engage with media providers in a responsive dialogue whereby the sender "*retains primary control over communication*" (McMillan, 2002, p. 277). The last form of interactivity is called mutual discourse, whereby sender and receiver roles become indistinguishable altogether. This final mode of communication turns both the sender and the receiver into participants.

Various writers and academics have built upon the premise that the internet provides interactivity and a two-way channel for communication; enabling consumers to 'talk back' (Shirky, 2000; Tapscott & Williams, 2006; Deuze, 2006; Leadbeater, 2008; Jenkins, 2006; Van Dijck, 2009). And this interactivity is not only applicable to communication processes; computers, tablets and smartphones provide users with tools for text processing, photo and video editing and audio recording. People can become creators (Gillmor, 2009) of user-generated content (OECD, 2007). And the internet supplies a massive network for users to connect with others and share information. Jenkins (2006) describes this new media system as a participatory culture in which both consumers and producers interact with each other according to a new set of rules. As the quote at the beginning of this chapter shows, Shirky (2000) even argues that the internet undermines the traditional role of the mass media, because consumers change into media outlets themselves. They produce their own media content and therefore, he argues, the concept of the consumer is obsolete. Online, consumers do not exist anymore. Every consumer is also a producer. But to what extent can this be validated?

In this dissertation, this question is explored. In this introductory chapter, the subject matter is further introduced. Subsequently, the central research question is presented, followed by an introduction of the most important concepts that are used. This chapter will finish by presenting an outline of the remaining chapters in this dissertation. But before continuing this introduction, one brief note on the background of this dissertation and the research project it was part of is in place.

1.3 The B@Home project

This dissertation started at the beginning of 2005 under the wings of the B@Home project. The B@Home project was part of Freeband; a Dutch research program aimed at the generation of public knowledge in advanced telecommunication (technology and applications). It specifically aimed at establishing, maintaining and reinforcing the Dutch knowledge position and addressing the most urgent needs for research and novel applications in new technology. Freeband comprised more than 25 organizations, included technology providers and end-user organizations. The Dutch Ministry of Economic Affairs co-funded the program as part of the BSIK program (the Dutch Besluit Subsidies Investeren Kennisinfrastructuur).

B@Home's scope was to research and develop future broadband services for the residential user, with a focus on the entertainment domain. In B@Home, Lucent Technologies, Philips Research, LogicaCMG, the Technical University of Eindhoven, Erasmus University Rotterdam and TNO cooperated. The objectives of the project were to develop new business models as well as architectures capable of plug-and-play service delivery to users. The knowledge and experience gained in the project was used to implement a demonstrator to show possible advanced services for the future. While the project was primarily technical and business-oriented in nature, one part was directed at the *users* of media services. The underlying scope of B@Home has given this dissertation its business modelling elements in the conceptual framework and empirical chapters. But at the same time, the reader will notice that the subject has been embedded in a much broader societal and academic discussion on changed user/producer roles and relations.

1.4 Changing relations between consumers and producers

Although consumers of media content have often been *labelled* passive, the audience in practice has always been active (see Jansz, 2010). By choosing, buying, watching, hearing, interpreting and discussing media content, the audience actively provides eyeballs (or ears) for both media content and commercial messages. This double consumption role of the audience has traditionally been largely separated from the producing role of media companies. Mass media companies have not allowed audiences to easily communicate back or participate uninvited. But this has changed in the past twenty years. The user has been enabled by information and communication technologies (ICTs) and social media to participate.

Various concepts have been coined to characterize these active and participative users. One example is the concept prosumer – a contraction of producer and consumer (Toffler, 1980). Originally this concept was introduced by Toffler in 1980 to characterize consumers who produce their own products. In the digital era it is often used to portray users who are involved at the production level of digital goods and services (e.g. Hermes & Janssen, 2006; Grinnell, 2009). Building on the idea of Toffler, Bruns introduced the term ‘produsage’ (Bruns, 2008; Bruns & Schmidt, 2011). Bruns uses this concept to stress the collaborative engagement of users in a shared project. He thus makes the concept more specific and adds the idea of shared production by users. Another example is the concept of the ‘pro-am’, the professional amateur (Leadbeater & Miller, 2004). Pro-ams are people who pursue amateur activities to professional standards. An example can be a layman who is involved in citizen journalism, but reports according to professional standards. Just as the term prosumer, the pro-am concept is not only used by Leadbeater and Miller to describe users participating in online activities, but the internet provides a powerful tool for individuals to become pro-ams.

In addition to prosumer and pro-am, terms such as ‘user-created content’ (UCC) or ‘user-generated content’ (UGC), ‘co-creation’ and ‘crowdsourcing’ are used to characterize the act of users creating content themselves or participating in design or decision processes (e.g. Surowiecki, 2004; OECD, 2007). Usually, user-created or user-generated content is referred to as content that is published in a certain (online) context, requires a specific creative effort to produce or adapt it, and is created outside of professional routines and practices (OECD, 2007). Examples are user created videos on Youtube or weblogs. Co-creation indicates a joint effort of a producer who teams up with users to generate a product or a service. One example is the movie project *entertainment experience* of director Paul Verhoeven, who invites the public to co-create the movie with him (www.entertainmentexperience.nl). Only the first minutes of the feature film are released, the rest is up to the audience. Crowdsourcing refers to the process of outsourcing a specific task to a group of people instead of performing it in-house (Howe, 2006). Building upon the productive potential of users is the basis of services like online encyclopaedia Wikipedia and operating system Linux.

User participation in online services seems to attract even more attention since the introduction of the web 2.0 concept (DiNucci, 1999; O’Reilly, 2005), also called the ‘participative web’ or ‘social web’ (Frissen et al., 2008) or ‘democratized media’ (Gillmor, 2009). The web 2.0 concept was popularized in 2004 for describing a new and

potentially disruptive stage in the development of the internet.⁴ The term is primarily social in nature. It is used as an umbrella concept to explain the development of new internet applications that exploit connectivity and the collective intelligence of internet users (Madden & Fox, 2006). These new applications enable users to create, publish and share information on a large scale (Pascu, Osimo, Ulbrich, Turlea & Burgelman, 2007; Slot & Frissen, 2007). According to Grinnell (2009), web 2.0 is not merely a technological development or a new form of connectivity, but rather a new and specific style of interaction between producers and consumers. Consumers are drawn into the production process and the economic lines between producers and consumers are fading (Deuze, 2007).

The past few years, the term web 2.0 has increasingly made way for the term 'social media'. Or, as Kaplan and Haenlein (2010) argue, web 2.0 serves as the ideological and technical foundation for social media: *"Social media is a group of Internet-based applications build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of User-generated content"* (Kaplan & Haenlein, 2010, p.61). Thus, social media provide users with open and online platforms to actively contribute, create and exchange content between user and/or users and producers. Although the first social media stem from the use of bulletin board systems in the late 1970s, the concept has become more important after the rise of social networking services from 2000 on. Although many people consider social media to be primarily Facebook and Twitter, also other platforms such as Blogger (blogs), Flickr (photos) and Youtube (videos) can be considered social media.

1.4.1 Consequences of user participation

According to Benkler (2006), enhanced user participation or autonomy has three consequences. Firstly, users have increased capacity to do things for themselves. Rather than being only consumers of content, users can express themselves more freely online. They can create content (user-created content), share information and communicate with other users on a large scale. The internet offers users more options outside the traditional channels of mass media. The above mentioned social media platform such as Blogger, Youtube and Flickr are example of these options to create and publish user-generated content.

4 The web 2.0 concept originally stems from 1999 (DiNucci, 1999). See chapter two for a more extended explanation of the concept.

Secondly, groups of people have the opportunity to do things together. Especially in social media, this group aspect is visible. Benkler underlines the loose affiliations of these groups of users: *"The very fluidity and low commitment required of any given cooperative relationship increases the range and diversity of cooperative relations people can enter, and therefore of collaborative projects they can conceive of as open to them."* (Benkler, 2006, p.9). The value of groups working together goes beyond socializing in social networks. Groups of users are, for example, empowered by technology to employ their collective intelligence. By analysing group dynamics and group judgment processes, Surowiecki (2004) found out that under the right circumstances, groups are often more intelligent than their smartest member. Groups are able to make decisions and solve various problems, from very simple to very complex. And, according to Surowiecki, the internet is a great enabler for this wisdom of crowds (sometimes also referred to as swarm intelligence). Internet positivists draw on a large library of examples to illustrate the collective intelligence of users; gold is found, genomes are deciphered, encyclopaedias are written and game levels are extended. With these examples, writers show that groups of users together can create, debug and improve large and qualitatively high-standard products (e.g. Surowiecki, 2004; Benkler, 2006; Tapscott & Williams, 2006; Leadbeater, 2008).

The third consequence of enhanced user autonomy is that individuals are empowered to move more freely in formal organizations operating outside the mass market. Benkler states that the networked economy provides users with alternative platforms for communication. This effectively lessens the power of mass media, established companies or organizations and enables users to perceive a broader range of possibilities. This process of disintermediation is visible on many different levels. Citizens are, for example, empowered to organize their own childcare, share health information or lobby for improvements in their neighbourhood. Many existing organizations struggle with this empowerment of the user. They are not used to their customers, citizens or audience surpassing them, and they need to rethink their value in society.

1.4.2 User autonomy in the media sector

One of the first sectors where the effects of greater user autonomy and subsequently changing relations between consumers and producers could be witnessed in practice was the music industry. In 1999, users began assuming distribution roles by up and downloading music files through peer-to-peer (P2P) file-sharing networks such as Napster and KaZaA. In 2002, the Pew Internet and American Life Project found that already nearly thirty per cent of the Americans at some point at least once made use of

these file-sharing platforms (Horrigan & Rainie, 2002). Record companies and intermediary organizations such as the RIAA (Recording Industry Association of America) reacted defensively.

In time, participating users could also be seen to be active in other online media sectors. In the press domain, rather than relying on journalists as gatekeepers of important news events, users create their own information environment (Picone, 2007). Millions of users publish their own information on blogs – in 2007 the blog search engine Technorati indexed more than 100 million blogs (www.technorati.com). News portals including Google News (news.google.com) gather news messages from different news sources such as newspaper websites and blogs around the world. Websites such as Wikipedia and Wikileaks allow users to publish and access (confidential) information. Bookmarking sites, for example Delicious (www.delicio.us) or Digg (www.digg.com), popularize certain news themes by enabling users to link to and assess news messages - making intermediary parties obsolete in the process. Users perform tasks of traditional journalists in citizen journalist initiatives such as OhMyNews (www.ohmynews.com) in South Korea. And via social networks, such as Facebook and Twitter, on which millions of users worldwide have created accounts (boyd & Ellison, 2007), people share content and news reports very rapidly.

And the development does not end there. Evading the industries' selection and gatekeeping mechanisms, amateur artists promote themselves through social networking sites, and authors publish their own books – online or in print. In social networks and virtual worlds such as Facebook and Habbo, teenagers and adults are creative and communicate on a large scale (Jansz & Theodorsen, 2009; Slot, 2010; Jansz, Slot & Tol, 2011). And these are only a few examples of possible online user activities. In general, it can be said that user opportunities for media consumption, production and use have grown extensively over the past 25 years. The above paragraphs showed that internet use has brought many new opportunities and positive outcomes. But not everyone is so optimistic about online user participation.

1.5 User participation and the devaluation of culture

Although internet optimists such as Benkler, Leadbeater and Surowiecki, are overtly positive about active user roles, applaud online possibilities and see participating users as a solution to many problems, traditional media companies and cultural critics approach the activities of users with caution and scepticism (e.g. Winner, 1997; Keen, 2007; Carr, 2007; Carr, 2009). For example, increased internet use may affect the way

our brains work in a negative way (Carr, 2009) and the sheer amount of user-generated content devaluates our culture (Keen, 2007). Also in academia, various critical perspectives on user roles and the transformative power of online participation can be distinguished (e.g. Livingstone, 1999; Livingstone, 2008; Van Dijck, 2009; Kreiss, Finn & Turner, 2011). To place the dissertation subject in a broader perspective, in this section, a number of these criticisms will be briefly explained, followed by an explanation of the perspective on online user activities taken in this dissertation.

One of the issues that keep surfacing in the debate on the changes brought by the internet and digitization is about the control over and ownership of content. The internet is defined by Küng et al. (2008) as a distribution system for information. The internet is a network of nodes, computers and servers (Lister, Dovey, Giddings, Grant & Kelly, 2003). This distribution system can contain digital information – information in binary form. In the process of digitization (or digitalization), information is mathematically reduced to zeros and ones. As Küng et al. point out; information in digitized form can be stored and manipulated by computers and transmitted through the network *"in perfect fidelity to the original"* (Küng et al., 2008, p.3). Once transmitted, the data can be used, stored, combined and manipulated - meaning that users can distribute perfect copies of the original to one another, for example through peer-to-peer file-sharing services. In that respect, everyone is enabled to copy and distribute media content without devaluating the original or providing compensation for the original creator. It enables consumers to circumvent traditional gatekeepers and intermediaries. This has been sometimes referred to as disintermediation (Keen, 2007).

Many existing media companies feel threatened by this form of disintermediation. They place the file-sharing activities of users in an economic and legal perspective and perceive every illegal copy as a violation of copyright law and a reduction of income. Over the years, many industry associations defended their position and tried to stop users from sharing files through file-sharing services. They have, among other things, made an effort to raise awareness among consumers, stop the platforms that enable file-sharing and lobbied for stricter copyright laws (Bakker, 2005; Bender & Wang, 2009; Blomqvist, Eriksonn, Findahl, Selg & Wallis, 2005; MPAA, 2008; Van Eijk, Poort & Rutten, 2010; Richards, 2008). The developments in the media sector and the way media companies responded to changed circumstances will be further discussed in the second chapter of this dissertation.

But the impact of user activities (file-sharing) on the economic output of the media industry is not the only concern. Also, the quality and impact of user-generated content

is under discussion. In his book *The cult of the amateur*, Keen (2007) rings the alarm bell about the destructive impact of the digital revolution on culture, economy and values. He argues that self-publishing undermines our sense of what is true and what is false, and corrupts our culture. Not only does Keen take the large number of blogs as an example, he also states that services such as Wikipedia, Google and YouTube are good examples of users displaying their bad taste, proving the absurdity of content and the devaluation of culture. In taking on producing roles and evading cultural gatekeepers, users might even be undermining 'truth'. With fewer professional middlemen, truth and trust are compromised online. Plagiarism, intellectual property theft and decreasing creativity are all consequences of the devaluation of truth on the internet. Keen argues that we need media professionals to keep our culture at a high standard.

Besides the aspect of ownership and exchange of content and the impact of user-generated content on our culture, the influence of technology on privacy and identity has received considerable attention in the past years. Online, our concern about or awareness of privacy seems eroded (Acquisti & Gross, 2006; Barnes, 2006; Taraszow, Aristodemou, Shitta, Laouris & Arsoy, 2010). Especially young people disclose personal information on social networking sites such as Facebook (Livingstone, 2008; Taraszow et al., 2010), not realizing the perils of their online activities. Research institutions like the Berkman Center for Internet and Society at Harvard University and research projects like the EU Kids Online Project draw attention to various aspects of online behaviour and the risks attached to it. Also the media often report about privacy failures of online services, for example when personal information is hacked and made public.

The impact of internet technologies on human identity also generates criticism. In this line of reasoning, the impact of the internet on the social lives and abilities of people is thought to be negative. Winner (1997), for example, argues that the new era of digital devices and networked computing only enables radical individualism and diversity through segregation. Personal power and self-realization are more important than existing organizational structures. This can be illustrated by the following statement: *"(...) on-line benefits of access to information and on-line community are being purchased with a decline in habits of sociability. Because we are citizens of cyberspace, even our next door neighbors do not matter all that much. We can stay in our rooms, stare at flat screens, surf the Internet, and be satisfied with simulacra of human contact."* (Winner, 1997, p.1010). Many-to-many and interactive communication are supposed to bring us a better society. But in reality, according to Winner, a number of important questions remain unanswered. For example who will benefit and who will lose in this new organization of society? How is power distributed? Will existing

patterns of injustice be eliminated or amplified? In this perspective can the discussion on the digital divide be placed. Internet seems to provide a large number of opportunities for people, but not everyone has equal access to this information society or equal abilities to participate in it (Van Deursen & Van Dijk, 2009).

More specifically, some researchers tend to doubt that users are truly active and empowered online. Often, the assumption is made that online, all users create content, but analysis shows that only a small percentage of online users actually do so. Nielsen (2006) argues that in social participatory services, user interaction is actually disappointing; 90 per cent of online users do not participate but are just 'lurking' in the background (Nielsen, 2006). They are simply inactive audience members. Nine per cent of the users are 'intermittent contributors' – they contribute from time to time. These users can be characterized as editors. Only one per cent of the users of a particular online community account for most activity. They are named 'creators'. This is referred to as the 90-9-1 rule. According to Nielsen, this inequality of contribution is not only visible in weblogs, but also in Wikipedia and book reviews on Amazon. Although this analysis has not yet been substantiated by large scale research, more scholars point out that the activity of users should be assessed more carefully (Van Dijck, 2009). Furthermore, the power of the producers, both incumbents and newcomers, to influence and steer the users should not be underestimated (Jenkins, 2006; Van Dijck, 2009).

Besides social consequences of internet use (or non-use), people could also experience changes in their brain structure. In accordance with the idea of McLuhan that media are extensions of our senses (McLuhan, 1964), concerns have risen about the impact of new media technologies and especially the internet on our brain, behaviour and selves. Writers have, for example, argued that the abundant and instant access to information is making us less intelligent (Carr, 2008). People are not able to focus for more than a couple of minutes anymore, because we are so used to a constant stream of things popping up on our screens. This has been referred to as 'popcorn brain' (Levy in: Cohen, 2011). And unable to remember things ourselves, we are transformed into pancake people, who know many things superficially, but do not have in-depth knowledge (Foreman, 2005). Furthermore, researchers suggest that users of new media technologies can develop internet addiction disorder (Yuan et al., 2011), or that people with a lot of online friends also have a different brain structure than people with fewer friends online (Kanai, Bahrami, Roylance & Rees, 2011). But the direction of this causality - whether people with a different brain structure befriend more people online or being friends with more people online changes the brain structure - is still uncertain.

1.6 Extended consumers

Discussions about the impact of 'new' or social media, such as those mentioned above, are not new. Throughout history, every new medium has been confronted with both utopian and dystopian perspectives. The introduction of the printing press in Western Europe in the fifteenth century enabled widespread literacy, but also was supposed to reduce the ability of people to remember. Cinema was introduced at the end of the nineteenth century and served as a vehicle for entertainment and a way to build nation states, but was also discarded as a means for unprecedented commercialization and consumerism. Discussions on the impact of new communication technologies are often passionate and normative in tone, with utopian and dystopian views contradicting each other. The different views on user participation mentioned in the previous sections, illustrate that also the impact of the internet on user participation is subject to these kinds of discussions.

Although both advocates and critics see the implications of increased user participation, they do not agree on the extent to which users take on other roles besides being consumers, nor on the significance of their doing so. They applaud, disapprove of or disqualify active users online. It can be stated that, today, still many uncertainties exist about changing user roles and shifting online user/producer relations. Conversation about online user participation easily degenerates into a discussion about the positive or negative side-effects of this development. Although this debate is often very normative in character, the questions raised are relevant and should be taken seriously. Siegel underlines that the internet deserves to be challenged by the same fundamental questions as other media (Siegel, 2008). This dissertation will shed light on these developments by studying what roles internet users are currently taking on and in what way the traditional relationship between consumers and producers has changed. This dissertation will assess in a balanced way both utopian and dystopian views by providing empirical evidence for changing user roles.

This leads to the following central question of this dissertation:

To what extent have user roles and traditional consumer/producer relations in the media sector changed since the adoption and deployment of computers and the internet?

The main research question is divided into four subquestions, each demarcating one part of the study:

1. How can consumer roles and consumer/producer relations in the traditional (offline) media sector be characterized?
2. In what way are the roles of media users and consumer/producer relations conceptualized in existing research perspectives?
3. How do current online media services incorporate user roles and user/producer relations?
4. What roles do users actually take on in online media services?

Now let us go back to the quote at the beginning of this chapter. Although the use of active user concepts and the examples presented above substantiate part of his statement, Shirky's claim about the death of the consumer on the internet can be nuanced. This dissertation will show that online, users can still (and maybe even more than ever) be conceptualized as consumers of content (this is also pointed out by Gillmor, 2009). People read newspaper articles on websites, watch television shows on their computer screens, listen to music and play online games. In the coming chapters, it is argued that the fact that consumers are enabled to assume more producer-like roles online can be seen as a complementary development rather than a complete turnaround. Because of the internet and networked media, users are enabled to take on additional roles besides being media consumers. In this dissertation they will therefore be called *extended consumers*. And these extended consumers have sometimes indeed turned the media sector upside down.

From an academic perspective, the subject of this study is also relevant. In recent years, media, communication and technology scholars have increasingly taken a user perspective (Punie, 2000). Among these theoretical accounts, user studies often focus on the user as active consumer (e.g. Berker, Hartmann, Punie & Ward, 2006) or the user as starting point in the development process of a new artefact (e.g. Von Hippel, 2005). But, even though users have gained more prominence in internet studies, the field of study is still in a developmental phase. Through studying user roles and subsequently processes occurring between consumers and producers, this understanding can be improved. Most of all, this study will put changing user roles and shifting user/producer relations into perspective. As was pointed out by Van Dijck (2009), it is highly relevant to develop a more nuanced model for understanding online user roles.

The objectives of this dissertation are twofold. Firstly, this research aims to contribute to the conceptualisation of user roles. Although the field of audience/consumer studies has significantly evolved over the past years, the study of various online user roles still provides challenges for both theory and empirical research. Secondly, this study aims to provide insight into user/producer relations in online media services compared to traditional consumer/producer relations. This study is primarily exploratory in nature and both empirical and descriptive in character.

1.7 Key concepts

It is important to clarify a number of key concepts underlying the research question. The concepts of consumer, user and user roles, producer, user/producer relations and the media sector will be explained below.

1.7.1 User and user roles

Oudshoorn and Pinch state that "*Users come in many different shapes and sizes. 'Who is the user' is far from a trivial question. Gender, age, socio-economic and ethnic differences among users may all be relevant.*" (Oudshoorn & Pinch, 2003, p.6). Thus, there cannot be an average user. Just as technologies will have different implications for different kind of people, also user roles will differ between various groups. In this study, users are defined as individuals using the internet for media purposes in their leisure time. Rather than consumers (using a consumer good until it is gone) or end-users (a concept that implies that the innovation process is already finished when it reaches the consumers (Frissen, 2004; Bergman & Frissen, 1997)), the user concept implies that the people who use the internet are active and add something (of value) to the information, product or service that they use. According to Tuomi, the user of a technology is not an individual person, but a member of a community that uses a technology in a certain way and in a certain context (Tuomi, 2002); therefore users in the plural should be used. Taking into account the observations of Benkler - that the internet can both strengthen individual use and the loose cooperation between groups of people, in this dissertation both the user concept and the users concept will be used. But it needs to be stressed that users are not a homogeneous group. In this research, the differences between users and groups of users will be taken into account.

In the social shaping of technology approach, various scholars have paid attention to non-users (see for example Wyatt, 2003). They argue that, when studying the history of technology, it is important to involve non-users. People who do not use a certain technology, intentionally or non-intentionally, or have used it but rejected it afterwards,

do contribute something to the character of a technology. The study of non-users contributes to knowledge about for example inequality, power struggles or technology design and intended uses. This research is not about the history and acceptance of the internet, but it is concerned with what people do with this technology. Therefore, albeit accepting that non-users exist, they will not be taken into account here.

In this dissertation, use is conceptualised as an activity. User roles, thus, are all the different ways users can interact with media applications. The concept of user roles should not be confused with user agency. Van Dijck (2009) points out that user agency is an ambiguous concept. It is often used to indicate that users are putting in a 'certain amount of creative effort' to create something 'outside of professional routines and efforts'. As is the case in user-created content (see: OECD, 2007). In this dissertation, user roles are defined in a much broader way and not only focus on mere creating. Consumption, for example, also is a user activity. Users can perform multiple other roles, such as rating or distributing content. Different roles can be less or more active. In this dissertation, user roles will be divided into six main roles: consuming, creating/customizing, contributing, sharing, facilitating, and communicating. This classification of user roles was developed in earlier research by Slot and Frissen (2007), on the basis of an analysis of possible usage of online web services, and will be further explained in chapter three.

1.7.2 Producers and user/producer relations

Broadly defined, a producer is a person, company or organization that delivers a product or service to another business party, organization or user. Products and services can be very diverse, ranging from food to furniture to technical parts to cars. In this dissertation, producers are more narrowly defined. Instead of focusing on the whole supply chain, including producers that are never in touch with their users, the focus lies on producers that offer media products or services to an audience. They are suppliers and facilitators of media services, and communicate directly to the audience. Thus, they have a direct relationship with their users and changes in this relationship will directly effect the way they (can) operate. Producers can be active in all media sectors; examples are record companies, publishing companies and television stations.

User/producer relations are all the connections that exist between users and producers at the moment an individual starts using a particular service. At the moment an individual subscribes to a newspaper, he or she enters into a relationship with the newspaper publisher. The user receives content from the producer, and pays a monthly fee. To provide the content, the newspaper publisher has contracts with journalists,

paper producers, printers and distributors. When a user buys a CD in a store, the record company provides the user with music, for which he or she pays an amount of money. User/producer relations traditionally are primarily economic (the consumer pays the producer for the content or service) and based on value (the producer supplies the consumer with certain value in return). But relations can be established on all levels of the business model of a producer – financial, technical, the value that is offered and the way the product is offered or the service operates. This operationalization of user/producer relations will be further explained in the next chapter.

1.7.3 The media sector

According to Tapscott and Williams, content producers have served like the proverbial canaries in a coal mine in the last few years. They are ‘(...) *the first casualties of a revolution that is sweeping across all industries*’ (Tapscott & Williams, 2006, p.14). This means that the media sector was one of the first to witness the impact of internet technologies and online user activities, and serves as an interesting example for other industries, but also provides an excellent and relevant study object.

The media sector can be positioned at the core of the creative or cultural industries. In sixty years, this concept of the cultural industries has undergone significant changes. At first, the term had a rather pessimistic connotation. In their influential book *Dialectic of enlightenment*, Adorno and Horkheimer – scholars within the tradition of the Frankfurter Schule – coined the concept ‘culture industry’ (Adorno & Horkheimer, 1947). They used the concept to describe the negative effects of capitalist ideology on culture, from the viewpoint of Marxism, and argued that cultural production resembled factory production; film, radio and magazines were mass-produced, the cultural industry was predominantly profit oriented and suffered from lack of innovation. Cultural products were uniform and lacked style. But most of all, consumers had nothing to say and were hampered in critical thinking by consuming cultural mass products. By consuming cultural products, audience members were silenced and made subordinate to capitalist ideology.

In time, this normative undertone faded away from discourse. Increasingly the culture industry was named creative industry, cultural industry or cultural industries – the latter indicating that it was not a uniform industry but rather formed by multiple sectors. The term became more mainstream and less ideologically biased. According to UNESCO, *“The term cultural industries refers to industries which combine the creation, production and commercialization of creative contents which are intangible and cultural in nature. The contents are typically protected by copyright and they can take the form of a good*

or a service.” (UNESCO). The various industries that are included in this definition are generally: printing, publishing and multimedia, audio-visual, phonographic and cinematographic productions, and crafts and design. UNESCO underscores that in various countries also architecture, visual and performing arts, sports, the manufacturing of musical instruments, advertising and cultural tourism are taken into account. Obviously, the term ‘cultural industries’ is an umbrella concept that can encompass many distinctive industries, including various media industries, and is largely culturally determined. For this study, focussing on the media sector, the demarcation of the research area needs to be more specific.

According to Rutten, Manshanden, Muskens and Koops (2004), the cultural industries, thus including the media sector, have four central characteristics: (1) meaning plays a central role, (2) the production process is rationalized, (3) information and communication technologies (ICT) play a very important part in the production process and (4) companies in the cultural industries primarily produce for the market of supply and demand. Based on these characteristics, Rutten et al. define five central media sectors: music, broadcasting, film and video, press and games. Küng uses a similar division for the media sector (Küng, 2008). More specifically, media are transmitters of content to (groups of) consumers and they make use of technologies such as radio, television, print or internet (Küng et al., 2008). Media companies use these media outlets to transmit packaged content. The sector in which these companies operate is called the media sector. Part of the media sector is focused on information and part of the sector is focused on entertainment.

In this study, the five media sectors defined by Rutten et al. (2004) and Küng (2008) will be taken as a starting point in the analysis, although two of them will be slightly modified because of the *online* component of this dissertation. The first domain under analysis is the music domain. The second domain, film and video, will be combined with photography since all three sectors deal with digital images. The third domain will be broadcasting, meaning television and radio. The fourth sector is the press domain, including books, magazines and newspapers. The fifth sector will be games and social networks. In this study, games will mean digital games and social communities will be added, because both games and social communities can serve as virtual spaces for users to interact with each other or producers. To summarize: in this study, user roles and user/producer relationships will be studied in music, photo, film and video,

broadcasting, the press and games & social networking services on the internet.⁵ By merging similar industries and emphasizing the digital component in some of them (primarily in the games sector), this classification can serve as a stepping stone to map the various changes in the media sector, and specifically in user/producer relations.

It needs to be underlined that researching distinct media sectors can lead to difficulties in a converged media landscape. Sometimes, in online services, the boundaries between various types of media are not easy to distinguish. Especially online platforms such as social networks enable users to share all kinds of media content. Nonetheless, in this dissertation a general classification will be used to enable systematic analysis and to explore possible differences between media services.

1.8 Chapter outline

This dissertation is a work of exploratory and descriptive research and consists of multiple complementing parts, both theoretical and empirical. The main research question is divided into four subquestions, each demarcating one part of the study. Because each empirical research has a distinct approach, each chapter starts with a short methodological section.

The first section of this dissertation is both historical and theoretical in nature. It consists of desk research/a literature review on changes in the media landscape and conceptualizations of changing user roles and user/producer relations. Chapter two is historical in nature. To gain a better understanding of the shifts in user roles and user/producer relations, this chapter presents a brief historical overview of the transformations in the media landscape since the 1980s. This chapter is based on secondary literature and industry reports. First, the organization of the traditional media sector before the rise of computers and the internet will be characterized. Special attention will be paid to the role of the consumer and to traditional consumer/producer relations. The deployment of the computer since 1980 and the internet since 1989 challenged the traditional hierarchical, one-way organization of mass media. Subsequently this development brought about shifts in user roles and user/producer relations in the media sector. These changes will be illustrated by

⁵ The research domain of this study has one important practical limitation. Media services and its users are the research objects. But because of researchers' inevitable linguistic limitations, this study will only deal with online media services in English, Dutch, German, French or Spanish. This excludes all services in other languages, for example Japanese, Chinese, Indian and Russian services.

analysing secondary literature about the five media sectors. In chapter two, subquestion 1 will be addressed.

In chapter three, the discussion about changing user roles in current use practices is embedded in a broader conceptual framework on the audience and consumers/users. The chapter will encompass an inventory of literature on consumer or user roles and consumer/producer relations on the internet and is exploratory in nature. Different theoretical perspectives such as media and communication studies and more technology-oriented approaches, for example Social Construction of Technology (SCOT) and domestication perspectives will be analysed (e.g. Ang, 1985; Benkler, 2006; Berker et al., 2006; Bijker, 1995; Castells, 2001; McLuhan, 1964; Osterwalder, 2004; Oudshoorn & Pinch, 2008; Punie, 2000; Silverstone & Hirsch, 1992; Toffler, 1980). This chapter will provide conceptual tools for dealing with subquestion 2.

In the empirical section of this dissertation, consisting of chapters four, five and six, the results of the empirical research are presented. A multi-method approach is taken, focusing on current online media services, user roles and user/producer relations. Both quantitative (content analysis and user survey) and qualitative methods (interviews and focus/discussion groups) are used to collect empirical data. In each of these chapters, the methods that are used for that specific empirical section of the book will be explained in more detail.

Chapter four provides an analysis and classification of user and producer roles and financial and technical arrangements in current online media services. The analysis is based on a systematic review of 125 online media services. This chapter is primarily quantitative in nature and provides insights that may help address subquestion 3. Because the analysis of web services only justifies statements about *possible* user roles, further attention is paid to *actual* user roles in chapter five. This chapter provides an account of an extensive user survey. This research is also quantitative in nature, and provides the data to answer subquestion 4. To get a more in-depth view on changing user roles and shifting user/producer relations, quantitative empirical data will be supplemented by a more qualitative view. In chapter six, user roles and user/producer relations will be studied in more detail by analysing one case study. The chapter consists of a quantitative and qualitative case study of certain aspects of user/producer interaction in Habbo, an online virtual world where teenagers can interact and play games. In the conclusion, the research results are placed into perspective and the research question is addressed.

2 Historical transformations in the media sector

“Surrounded as we are by future-oriented debates about the impact of new communication technologies, it may well be that the first thing we need, if we are to avoid the twin dangers of utopianism and nostalgia – and to avoid the historically egocentric error of treating the dilemmas of our own age as if they were unique – is some way of placing these futurological debates in historical perspective.” (Morley, 2006, p.25)

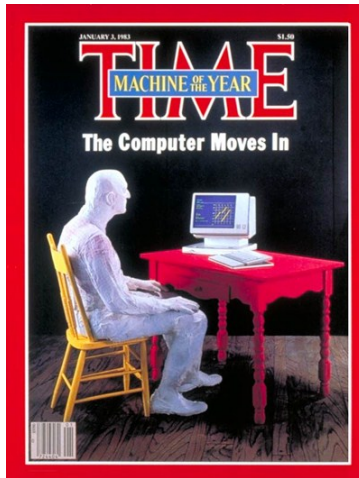


Illustration 1 Time Magazine 1983 (source: <http://www.time.com/time/coversearch/>)

To counter the two dangers as described by Morley in the quote that opens this chapter, and to provide a general context for the empirical studies, this chapter will provide an account of the developments in the traditional media sector since the 1980s. A historical contextualisation and description of traditional arrangements and user roles in the media sector will allow us to make a comparison between new and old ways of doing things. Also, although participating audiences have been present in all media domains, differences between the different media sectors might be visible.

2.1 1983: the personal computer is man of the year

Since 1927, *Time Magazine* each year elects a 'person of the year'. Nominees represent individuals or groups of people who were most influential in the news that year (in a positive or negative sense). At the beginning of 1983, something exceptional happened; the personal computer was elected man of the year 1982 (Friedrich, 1983, see Illustration 1). A machine had never been elected before. It was a clear indication that this new medium had high potential and could become a very important factor in many aspects of human life. Computers held the promise of something revolutionary – providing tools to people to become active themselves, and the impact of this was uncertain. Combined with the deployment of the internet from the 1990s on, the computer would alter existing user/producer relations throughout society - first and foremost in the media sector.

Although computers already existed for some time, they were not yet used by the mainstream audience. The first computers were enormous in size and very costly. At the time of the election, technological developments like the micro chip started to have important implications for the size and price of computers. Increasingly they became available to the general public – at least in the industrialized part of the world. But what changed? As the quote of Morley at the beginning of this chapter indicates, debates on the present and future of technologies need to be embedded in a historical perspective. The second chapter of this dissertation therefore focuses on a historical account of the developments in the media sector since the deployment of computers and the internet. Taking into account that personal computers entered the market at the beginning of the 1980s and internet was available for the mainstream public around 1989, first, the state of the art will be sketched, starting in 1980. This chapter will not provide an inclusive overview of recent media history nor of all aspects of the media sector. Rather, a brief history will be sketched, followed by a general outline of the organization in the traditional media sector with its main characteristics and the relationship between users and producers. The developments are illustrated by referring to the main changes in the core domains of the media sector, as defined in the previous chapter. In addition to an overview of quantitative and qualitative primary sources and secondary literature concerning technological and organizational developments, the focus will be on changing user roles and user/producer relationships.⁶

⁶ Finding coherent statistical information about international developments in the media sector is complicated. Many countries do have statistical agencies that collect information about internal affairs,

2.2 The development of the traditional media sector in a nutshell

For centuries, the only mass medium publicly available was print – in the form of books, newspapers or pamphlets. Not until the late nineteenth century did new technologies enable the rise of other mass media (e.g. Croteau & Hoynes, 1997; Gorman & McLean, 2003; Hirst & Harrison, 2007). Commercial printing technologies, the development of newer techniques for photography and the phonograph made way for, among other things, illustrated newspapers and magazines, printed sheet music, music records, postcards and children's books (Anderson, 2006). In 1895, a number of experiments and inventions led to the introduction of cinema. Photographers and scientists like Muybridge and Marey were fascinated by the illusion of motion. Edison made a projector for moving images called the Kinetoscope and the Lumière brothers invented the cinematograph, enabling the creation and projection of moving pictures. Cinema developed from a scientific experiment into a popular type of urban commercial amusement. Between 1905 and 1918, cinema attendance rose sharply – in 1912, in the United States alone, every day five million people attended the cinema and in 1914, 18,000 theaters (Nickelodeons) administered seven million admissions a day (Croteau & Hoynes, 1997; Czitrom, 1982).

The array of mass media was extended with the introduction of the radio in 1920, leading to the so-called golden age of radio in the 1930s. In 1941, television entered the household and significantly reshaped the media sector. Although at first television sets were primarily bought by well-educated citizens with a higher income, soon televisions were mass produced and available to most households. Since the 1950s, (colour) television started dominating the mass media for a long time (Castells, 2000). Just like

such as income, population, education, traffic and sometimes even about media use and the penetration of computers and internet in society. But these agencies primarily focus on local markets. Some statistical agencies collect data that go beyond national boundaries, like OECD and Eurostat, but still, historical data is not always available. International industry reports by research agencies are often very costly to purchase. Other insightful data sources are provided by national or international trade associations, but these organizations often also sell their data. In this chapter, all kinds of available information is used. It needs to be underlined that these sources are selected as carefully as possible, but the accuracy of the information represented cannot be fully guaranteed. See for a more complete overview of changes in the whole of the cultural industries since 1980, Hesmondhalgh (2007). Furthermore, the work on this chapter started in 2007. Over the years, it has been updated multiple times to include more recent industry statistics. It has proven to be a difficult task to include newer statistical information in the existing figures of this chapter because some industry associations change the way they calculate things, include newer technologies in their output or simply start charging money for their information. The last update of this chapter was in 2010. This means that most figures, as far as possible, contain information up until 2009. In the text, some more recent information is taken into account.

radio, television had the ability to reach massive audiences with a single broadcast. Thousands of people heard and saw the same broadcasts at the same time. At first, only a small number of television stations broadcast programmes at specific times during the day. In time, broadcasting time was extended. Two dominant organizational broadcasting arrangements were developed, commercial (primarily in the US) and public (primarily in the UK). Castells argues that since the adoption of television, the world has witnessed a true communication explosion. And at the beginning of the eighties, game consoles were introduced, enabling people to play video games at home, for example Pong – one of the first video games (1972).

Thus, at the beginning of the eighties, the media industry had already developed its main structure of production. Audiences used many of these mass media; they read newspapers, magazines and books, watched films and television, listened to the radio and music records and played video games on their television screens. As an illustration: in the Netherlands in 1980, people spent on average 17 hours per week on media – more than three hours per day. Dutch audiences watched television for 9.9 hours per week, listened one hour per week to the radio, read newspapers, magazines and books for 5.6 hours and listened to music records for 0.6 hour (Knulst, 1982).

2.3 The traditional organization of the media sector; a value chain

The structure and organization of the traditional media sector can be analysed by using the value chain metaphor. The value chain concept was coined in 1985 to explain the value adding processes surrounding the production of an artefact or service in one particular company or organization (Porter, 1985). Over the years, the value chain was also used to analyse not only a single organization but also the processes in a whole sector. Rutten et al. (2004) have adapted the value chain to analyse the cultural industries. Since the media sector is part of the cultural industries, it can also be used for the media sector. The cultural value chain shows the path of content from the creation stage to the consumption stage. Five stages of value creation are defined: creation, production, publishing, distribution and consumption (see Figure 1). All stages will be briefly explained below.



Figure 1 Cultural value chain⁷

2.3.1 Creation

The first step in the value chain is the creation of media products. In the traditional media sector, novels, music recordings, news stories, photos, films, games, television and radio programmes are created by artists or other groups of skilled people (for example writers, musicians or photographers). They operate on the market for media products. Since production costs of cultural goods are high, and money can only be made after the production is completely finished, creators experience important physical limitations to producing content. Therefore, many of these creators are employed by producers through contracts, primarily based on projects (Caves, 2000). Due to these limitations, mainstream audience members often do not engage in the mass media creation process, as is stated by Benkler: *"From the steam engine to the assembly line, from the double-rotary printing press to the communications satellite, the capital constraints on action were such that simply wanting to do something was rarely a sufficient condition to enable one to do it"* (Benkler, 2006, p.6). Because of the advancements in communication technologies, digitization and convergence, this has changed during the past years.

But even before the introduction of computers and the internet, consumers were not completely excluded from the creation process. The urge for consumers to create content for media has always been present (Van Dijck, 2009, Harrison & Barthel, 2009). For example, they send opinionated articles to newspapers (particularly local media integrate content created by their audience), make photographs and videos, write and tell stories and participate in quizzes on television. Individuals copy music records, exchange these copies and recommend books and films to one another. Users communicate with their family, friends and peers about media products, for example about television programmes and newspaper articles. But these creating activities

⁷ Information source: Rutten et al., 2004.

provide consumers with a certain threshold and often a limited audience. All this user participation is on a relatively small scale and self-created works are not easy to make public.

2.3.2 Production

In 1980, the production of cultural goods in the media sector was in the hands of a small concentration of large multinationals. Even until today, an oligopoly of large companies like Disney, Bertelsmann, Viacom, News Corp and Time Warner still dominate the global media sector. They select, produce, publish, broadcast and distribute media products to a mass audience. On a national scale this role has been fulfilled by broadcasting corporations and (newspaper) publishers. To generate a profit, these media companies not only sell their products and services to an audience, they also sell their audience to advertisers. Concentration of media ownership (or media consolidation) is an important characteristic of the organization of the media and entertainment sector. In the music industry, music is produced by a small number of large record companies (Van de Kamp, 2009). Newspapers are owned by 'multinewspaper groups' (Compaine & Gomery, 2000) and the large film studios (primarily based in Hollywood) dominate movie production in the West.

As producers of media content, media companies serve as gatekeepers by selecting which works to produce. Therefore, these companies play a role as intermediaries between the creators and the public, and have a very important role in the value creation process. This important role is directly linked to two important economic characteristics of the traditional media sector: fixed costs are high and demand is uncertain. Producing media products like films, books, newspapers and television series requires a large financial investment (Shapiro & Varian, 1999). Many costs made during the production process are already sunk. Sunk costs are needed to produce the first copy of a cultural product and cannot be retrieved once the product is finished. To give an example; during the production of a typical daily newspaper, the first copy cost is 40 to 45 per cent of total costs (Picard, 1998 in: Compaine & Gomery, 2000). Also other media products like films, television shows, music albums and games have high sunk costs. But once the first copy is produced, producing more copies is less expensive – the marginal costs of additional media products are low. Therefore, media companies can profit from an economy of scale; the more copies a company can sell, the better. And herein lies the risk of the production of cultural goods.

Only a small percentage of media products will be successful enough to recover fixed costs, which makes the production process in the media sector uncertain. This

uncertainty surrounding production is also named the '*nobody knows property*' of cultural goods (Caves, 2000, p.3). It is unpredictable how the audience will value it. According to Hesmondhalgh (2001), the failure rate in the media sector is considerably higher than in other sectors; in the music industry in the US, fewer than two per cent of the 30,000 albums released sell more than 50,000 copies. For producers and other investors, it is of absolute importance that this uncertainty surrounding production is as small as possible. Companies in the media sector employ several strategies to tame this uncertainty, for example by only producing 'safe' or proven genres, relying on stars to feature in their films or producing sequels to already successful movies. Production in the traditional media sector is therefore primarily focussed on hits (Anderson, 2006). This is illustrated by the following: "*Hit driven economics is a creation of an age in which there just wasn't enough shelf space for all the CDs, DVDs, and video games produced; not enough screens to show all the available movies; not enough channels to broadcast all the TV programs; not enough radio waves to play all the music created; and nowhere near enough hours in the day to squeeze everything through any of these slots*" (Anderson, 2006, p.18). The importance of hits in the media economy also accounts for the uneven distribution of incomes for creators. The majority of creators are not making enough money to cover their daily expenses (Abbing, 2002).

2.3.3 Packaging/publishing and distribution

The next step in the value creation process is packaging and publishing. After content is produced, the publisher makes it public. The publishing process is, just as the production process, a gatekeeping activity. Publishers buy or commission copy from creators, producers or middlemen. Subsequently, the content is transferred to a medium-specific carrier. Usually, the publisher also arranges the marketing and promotion of media products. Before digitization and convergence, every medium had its own carriers. In 1980, music was published on LP records or music cassettes. Films were shown in the cinema or sold on video cassette. Books, magazines and newspapers were printed on paper and games on cartridges.

After publishing, creative works are distributed to a specific location. Films are shown in movie theatres and books are shipped to stores throughout the country or the world. The distribution chain can be labelled the third gatekeeping activity in the traditional media sector. Selling space is limited (Anderson, 2006). Music and book stores only have a certain amount of shelf space. Cinemas have a limited number of screens and on television and radio there is only a limited number of hours for broadcasting. Easy to find shelves (at eyelevel), popular broadcasting hours and large cinema screens are even

more scarce. This organizational principle furthermore stimulates blockbuster or hit culture.

2.3.4 Consumption

In this perspective, only at the final stage of the value chain for the mass media do consumers enter the value adding process. Through consumption, cultural value is communicated to the audience members. In 1980, audiences only had access to content selected by the producers, publishers and distributors. Around 1980, consumers bought books, magazines, music cassettes and video games at retailers, visited the cinema, watched television programmes and listened to the radio. They were not enabled to take on any other role than (at most) that of critical consumers of media products (see for exceptions the creation phase). Consumers most of the time were only end-users, and occupied the final stage in the value chain. Direct contact between creators and consumers was rare. According to Castells, *“the audience was seen as largely homogeneous, or susceptible to being made homogeneous.”* (2000, p.359). But despite the fact that consumers seem passive, the audience can be assigned also an active role in the consumption process (see Jansz, 2010).⁸ By choosing, buying, watching, hearing, interpreting and discussing media content, the audience actively provides eyeballs (or ears) for both media and commercial messages. Nonetheless, this double consumption role of the audience is separated from the producing role of media companies. So, traditionally, mass media companies do not allow audiences to easily communicate back to the producers or participate uninvited.

2.3.5 Summary: traditional consumer/producer relations in the media sector

To summarize, media products are created by artists and groups of skilled culture workers. The creators do not know the audience. They might have an idea of the composition of the audience based on marketing research, but they do not know individual audience members. The product subsequently goes through stages of production by a producer, is published by a publisher, marketed and distributed to retailers and finally reaches the audience. This strict hierarchical, modular and linear one-way mode of production has consequences for the media sector. The organization of the industry and the most important characteristics of this domain have showed that users are most of all consumers of content.

⁸ For a further discussion on the passive-active dichotomy, see chapter two.

2.4 Transformations in the media sector

"The desktop revolution has brought the tools that only professionals have had into the hands of the public. God knows what will happen now". (Marvin Minsky, MIT computer expert, in Friedrich, 1983)

In the 1980s, the media sector started changing (Castells, 2000). This change was, in the first place, technological in nature. The personal computer entered the household. Content was digitized. The scope of publishing was extended to electronic sources. The internet developed as an important technological platform for the media and communications sector (Henten & Tadayoni, 2008). The impact that the internet and other information and communication technologies have in the media sector, can be placed in a wider perspective. Perez considers information and communication technologies the fifth technological revolution in the past 200 years (Perez, 2002). Basing herself on a refinement of the macro-economic theory of Kondratiev waves and the work of Schumpeter, Perez sketches the upsurge of five new, large-scale technologies in our society (see Table 1). She positions long-term technological transformations in a wider economic, social and political framework. According to Perez, each technological revolution is characterized by two subsequent periods of development: (1) the installation period and (2) the deployment period.⁹

Five technological revolutions in 200 years	
The industrial revolution	1771
Age of steam and railways	1829
Age of steel, electricity and heavy engineering	1875
Age of oil, the automobile and mass production	1908
Age of information and telecommunications	1971

Table 1 Technological revolutions according to Perez (2002, p.11)

2.4.1 The installation period

During the installation period, a new technology 'irrupts' into society, creating high hopes of future applications (Perez, 2002). This initiating period can be characterized by explosive growth, great turbulence and uncertainty in the economy. Perez takes the invention of the microprocessor in 1971 as the starting point for the age of information

⁹ In this dissertation, macro-economic theories are be discussed in great detail, but will be used to position the developments that have affected the media sector in a broader perspective.

and telecommunications. Before 1980, computers were in majority owned by universities, governments or large companies. The invention of the microprocessor was the first step to making computer technology available for the general public. At the beginning of the 1980s, the personal computer entered the household. In 1980, the PC hard drive held 10 MB of memory at most, but this was increasing fast (according to Moore's law, it is doubling approximately every two years). The number of computers owned by the public also rose steadily. In 1982, 5.5 million personal computers were sold, in 1992, more than 65 million and in 2002, more than one billion (University of Minnesota, 2007). In 2007, according to IDC (2007), the two billion mark was reached.¹⁰

The diffusion of the computer was followed by the roll out of the internet. Computers were linked together in a network, enabling connections between users. The internet started in 1968 as a US military/university project (ARPAnet), but was not yet available to the mainstream public. One indicator for the size and growth of the internet is the number of hosts (hosts are computer systems with a valid IP address) that are connected in the network (Van der Wurff, 2008). In 1969, four host computers were linked to each other in the United States, but this number grew rapidly (University of Minnesota, 2007). In 1973, around 35 hosts were connected in the network and in the early 1980s, a few hundred computers (Zakon, 2006; Castells, 2000). At the beginning of the 1990s, Tim Berners-Lee developed the World Wide Web, which made the internet more accessible to the mainstream public (Harrison & Barthel, 2009). In 1994, more than two million computers were connected to the internet, and in 2000 this number had risen to 72 million. In July 2005, 353 million hosts were connected (Zakon, 2005 in: Van der Wurff, 2008).

These growth rates are also reflected in the number of internet users (see Figure 2). Not until 1995 did the internet really pick up steam. In that year, the internet had thirty million users worldwide. In 1996 this number grew to 45 million (University of Minnesota, 2007). At the end of 1998, the internet had around 150 million users. Halfway 1999, approximately 179 million people in 200 countries had access to the web (Castells, 2000, p.375). At the end of the twentieth century, analysts tried to predict the further growth of the internet. When would it reach 1 billion users? In 1999 Cerf predicted between 300 million and 1 billion users at the end of 2000 (Cerf, 1999 in: Castells, 2000). Castells himself estimated that halfway 2001 the number of internet users would be around 700 million.

10 Data from <http://www.worldometers.info/computers/>, retrieved August 2010

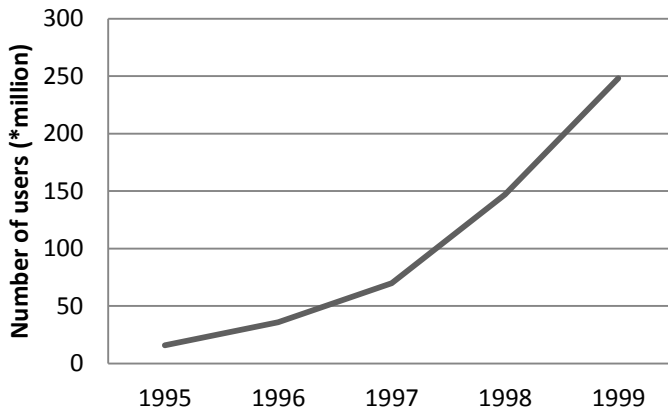


Figure 2 Number of internet users between 1995 and 1999

2.4.2 The burst of the bubble

According to the theory of Perez, after the eruption of a technological revolution in society, the first twenty to thirty years, this technology leads to an increasing mismatch between old and new institutions, between the economy and the social and regulatory systems. Newcomers question the existing institutional frameworks and put traditional procedures to the test. Furthermore, the financing of these new technologies and start-ups takes a high flight. Fed by high profit expectations, investors invest high sums of money in enterprises that are trying to capitalize on the new technology. According to Perez, this leads to the second stage of the first installation period, which she calls 'frenzy'. Rather than focusing on the facts, investors are infected by each other. Tension mounts between the high financial risks taken by investors and the increasing mismatch between old and new institutions. Eventually, this over-investment leads to a crash of the system – or a bursting of the bubble.

The course of the installation period and frenzy of a technological revolution can be very well illustrated for the information age. Since the end of the 1980s, increasingly business newcomers dedicated themselves to the development of new businesses on the internet. These companies were called dot-coms, and primarily focussed on e-commerce or selling physical items on the web (Useem, 2000). In the early 1990s the growth of internet traffic was enormous; it grew by 1,000 per cent a year (Surowiecki, 2004, p.57). Increasingly, investors were convinced they were going to make a lot of money out of new internet businesses and the stock market boomed. But in 1996 the growth rate slowed down. Nevertheless, investors were still investing heavily in internet companies. In this process, a lot of these companies became overvalued, while only a

few managed to establish awareness among the public (Mello, 2000). Without going into details – this overvaluation, coupled with other circumstances, eventually led to a bursting of the dot.com bubble in 2000 (Khan & Raahemi, 2008). This crash did not come unexpected. According to articles published at the beginning of 2000, internet watchers already predicted that 90 per cent of the existing dot-com companies would have gone bankrupt by the end of 2000 (James, 2000; Mello, 2000).

2.4.3 The deployment period and web 2.0

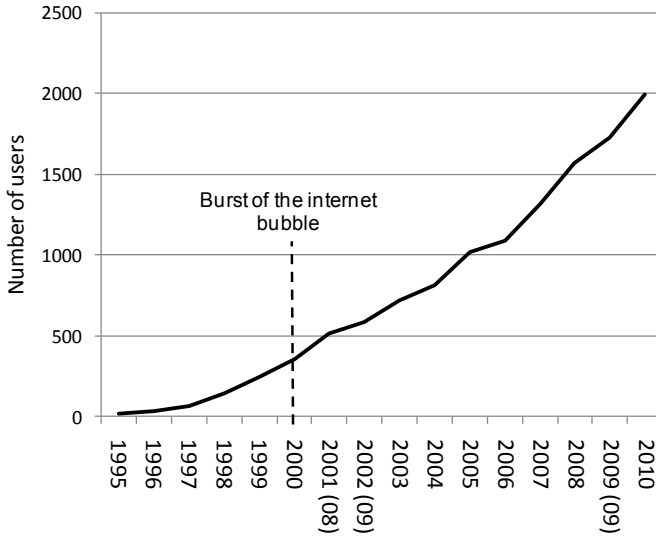


Figure 3 Internet usage growth in million¹¹

But although many companies went out of business, people lost their jobs and a huge amount of money was lost, this crash was not the end of the internet. Useem states that; *“While the Internet may not have disrupted the old industrial order, it has disrupted the old way of doing business – particularly the relationship between customers and corporations. (...) The dot-com revolution is dead. Long live the Internet revolution.”* (Useem, 2000). The number of computers connected to the internet did not diminish. Halfway 2006, 439 million hosts were connected in a network (Zakon, 2006). Increasingly residential users got internet access (see Figure 3). In retrospect, looking at the predictions by Cerf and Castells in 1999, the more conservative estimates have

11 All statistics are from Q4, unless indicated between brackets (month numbers). Data source: www.internetworldstats.com.

turned out to approximate reality better. At the end of 2000, around 400 million users were online. Halfway 2001, this number had risen to approximately 500 million. The internet did not reach its 1 billionth user until 2005. And in June 2012 it is estimated that almost 2.4 billion users are connected to the internet. This accounts for 34.3 per cent of the world's population (internetworldstats.com).¹²

Just as internet usage did not diminish, neither did internet companies cease to exist. In the post-bubble years, the number of internet start-ups kept increasing. Rather than mainly focussing on e-commerce, these new services focussed increasingly on social networks of users. In this respect, often the term web 2.0 is used. Unlike some say, web 2.0 is not a catch-phrase that was created by O'Reilly after the dot-com crash (see for example Pisani, 2006). The term was coined in 1999 by DiNucci, in an article about the design of websites at that time and in the future (DiNucci, 1999). DiNucci envisioned the web of the future not to be a static collection of websites (as it was at the end of the twentieth century), but a fragmented, dynamic and interactive transport mechanism. The web would become ubiquitous, not only on the computer screen, but also on television, mobile and game consoles. Hardware differences would pose challenges for designers, and web design would split into fragments.

In 2004, O'Reilly Media and MediaLive International organized a Web 2.0 conference in San Francisco about online innovation. It is unclear whether the organizers had read DiNucci's article, but they had the same underlying idea: "*The Web 2.0 Conference is of, for and about the leading figures and companies driving innovation in the Internet economy. The conference will debut with the theme of 'The Web as Platform,' exploring how the Web has developed into a robust platform for innovation across many media and devices - from mobile to television, telephone to search.*"¹³ After this conference, the web 2.0 concept became more popular, and was primarily used (as was explained in the introduction) to interpret new online developments. According to Leadbeater (2008) web 2.0 differs from the 'older' internet in that it encourages conversation rather than monologue. Given the fact that many dot-com companies applied themselves to e-commerce and selling items to consumers, and (successful) start-ups after the dot-com crash were increasingly directed at social networking, this might be true. Nevertheless, Tim Berners-Lee himself advocates that the web was always meant to be about

12 Although this is a large percentage, it needs to be underlined that the Western and Asian countries are grossly overrepresented. Asia, Europe and North America count for 82.8 per cent of all internet users (internetworldstats).

13 The information page of this conference can still be viewed at: <http://conferences.oreillynet.com/web2con/> (retrieved August 2010).

connecting people (Anderson, 2006; Harrison & Barthel, 2009). Web 2.0 might just be a more mature version of the web, not a different or new version.

From a macro-economic perspective, this maturity thesis seems to make sense. According to Perez, many technological revolutions go through these kinds of phases. Perez defines the phase after the crash of an industry as the *deployment period*, which can be characterized by more harmonious growth and a better match between technology, the institutional framework and societal needs. Through societal engineering, the technology becomes integrated into everyday life and the new paradigm gets deployed throughout society as a whole (Perez, 2002; Slot & Frissen, 2007). Possibly this development leads to a 'golden age' of this particular technology – depending, according to Perez, on the institutional and social choices made (Perez, 2002). The second period of a technological revolution is said to last for another twenty to thirty years. After that, the technology stabilizes or becomes obsolete and a new technological revolution starts.

Taking this perspective into account, it can be said that we are still in the first half of the deployment period; the phase in which the internet is more naturally integrated into our daily lives. The internet is increasingly institutionalized and integrated into various societal domains. The macro-economic theory, as formulated by Perez, provides insight into more generic processes concerning the diffusion and adoption of computers and the internet in society. To generate a more detailed view and deepen the understanding of the changes in the specific media sectors, they will be analysed in more detail in the remainder of this chapter. It needs to be underlined that not all specific technical and organizational changes will be described. The focus lies on a general sketch of the changes in the five media sectors with specific attention given to changes in user and producer roles connected to the deployment of computers and the internet.

2.5 Transitions in the music industry

The music industry in the eighties can be (technologically) characterized by a rapid change in music carriers. In 1980, most music was published on vinyl LP records, but over the years the music cassette gained popularity. In 1983, music cassettes outsold LP records. In 1983, Sony and Philips sold the first CD (with digital music). In 1988 the CD outsold LP records (University of Minnesota 2007), and in 1992, CD sales outsold music cassettes. Digitization of music files opened up many new possibilities, for example in editing and distribution. Qualitatively, digital copies cannot be distinguished from the original. And particularly the ease with which exact copies can be made, has made

digitization interesting for users. Copying and sharing digital music has gained enormous popularity. Digital networks enable users to share their digital (music) files with millions of other users (or peers) very easily. This phenomenon of peer-to-peer (P2P) file-sharing has dominated discourse in the music industry since the end of the twentieth century.

2.5.1 P2P file-sharing

In 1999, enabled by Napster, users started up- and downloading music files from peer-to-peer (P2P) file-sharing networks on a large scale. Napster was the first user-friendly program for transferring and downloading files and it was followed by many others (Bender & Wang, 2009). P2P file-sharing has several advantages for users (EITO, 2006 in: Pascu et al., 2007). First of all, users have access to a vast catalogue of free content. Secondly, the P2P system has low distribution costs. Content storage and delivery costs are supported by its users. Thirdly, the system has increased benefits of network externalities. The more users join the network, the more efficient and faster files are distributed. A fourth advantage is that large files are optimally distributed because they are divided into small packets. Lastly, the P2P system is robust because the network does not depend on a central server.

These benefits added to the popularity of P2P file-sharing. Since 2002, the number of simultaneous users had risen from roughly four million in August 2002 to ten million in April 2004. In 2002, the Pew Internet Research project found that nearly thirty per cent of the Americans and fifty per cent of the Americans with broadband internet at some point at least once made use of file-sharing platforms (Horrigan & Rainie, 2002). And in 2004, each week users downloaded more than one billion music files (Oberholzer & Strumpf, 2004). *The Economist* reported 7.5 billion downloads in 2007 (*The Economist*, 2008, in: Huygen et al., 2009). From 2006 on, more than sixty per cent of all internet traffic could be attributed to P2P file-sharing (Oberholzer & Strumpf, 2010; Ferguson, 2006). In 2002, 62.5 per cent of internet traffic consisted of audio files. In 2003, this percentage had come down to 48.6 per cent (OECD, 2004a). P2P file-sharing increasingly consisted of larger video files. In 2004, only 6.2 per cent of P2P file-sharing could be attributed to music and 53 per cent to video files. In 2006, the exchange of video files took up 60 per cent of P2P traffic (Ferguson, 2006). Since 2007, research indicates that the percentage of P2P traffic diminishes in favour of streaming video. This doesn't mean that P2P traffic is declining, but it does indicate that the portion of web traffic generated by P2P file-sharing is lower, and streaming video websites like Youtube and Hulu are generating more traffic (Roettgers, 2009).

2.5.2 Declining CD sales

The music industry had faced similar threats of sharing by users since the invention of the cassette player and the CD recordable, but these problems were relatively small-scale (Mooney, Samanta & Zadeh, 2010). The industry still had a problem with professional pirates, but the problem with domestic users was to some extent manageable – not least because taxes could be put on carriers. Internet proved to be different; it enabled file-sharing to become regular user practice. Millions of users took on roles as distributors and bypassed the traditional players in the music industry. The reaction of the music industry was to a large extent defensive; record companies and industry associations claimed a decline in the sales of music CDs and blamed it on illegal file-sharing. Looking at figures about year-end shipment statistics of the RIAA, it is a fact that in the US in 1997, 753 million CDs were sold. This number rose steadily to 942.5 million in 2000 (which is actually inconsistent with the popularity of file-sharing in these years) but after 2000 it started decreasing to 619.7 million in 2006 (RIAA, 2007). The recording industry blamed users who were illegally downloading music files. In 2007, the Institute for Policy Innovation (IPI) estimated that the cost of worldwide sound recording piracy to the US was 12.5 billion Dollars (Siwek, 2007). The industry at first started suing the programs behind file-sharing. In 2000, the US court limited the activities of Napster. The file-sharing service had approximately 77 million users by then. And these activities continued. The International Federation of the Phonographic Industry (IFPI) stated that in 2002, 2003 and 2004 respectively 28,000, 38,000 and 41,000 web and FTP sites were taken down (IFPI, 2004).

In addition to suing file-sharing services, the music industry applied several other strategies to ban file-sharing, for example, applying strict digital rights management (DRM) to music files, launching awareness campaigns for the public and urging governments to strengthen the copyright protection system (Blomqvist et al., 2005; Bakker, 2005; Bender & Wang, 2009; Van Eijk et al., 2010). From 2002, lawsuits were started against individual copyright infringers in several countries. The IFPI, for example, reported civil claims against 150 P2P users in Denmark in 2002, 100 criminal complaints filed against 100 P2P users in Korea in 2003 and criminal raids of 75 P2P uploaders and service providers in Italy in 2003 (IFPI, 2004). Also up until today, the music industry tries to shut down sites that host illegal content, like the pirate bay.

As Van Eijk et al. (2010) point out, although the recording industry was confident that the declining sales were brought about by illegal file-sharing, the effect of file-sharing on music sales is ambiguous (also see Bender & Wang, 2009). Over the years various conflicting research findings on the causality of file-sharing were published (e.g.

Oberholzer & Strumpf, 2004; Liebowitz, 2004; Bakker, 2004; Geist, 2005; Michel, 2006; Bender & Wang, 2009; Liebowitz, 2010; Mooney et al., 2010). Some scholars support the music industry in its claims, while others contest it. Most studies show that illegal downloading has a limited effect on music sales. Other factors also contributed to declining CD sales. Authors mention for example poor macroeconomic conditions, a reduction in the number of album releases, growing competition from other forms of entertainment, the sale of vinyl singles, or qualitative factors. Oberholzer and Strumpf, for example, used observations of actual file-sharing behaviour. In 2004 they claimed that illegal downloads had a minimal effect on sales, and that the effects were actually statistically indistinguishable from zero. The outcome of their research was contested by others, most importantly Liebowitz (2004; 2010).

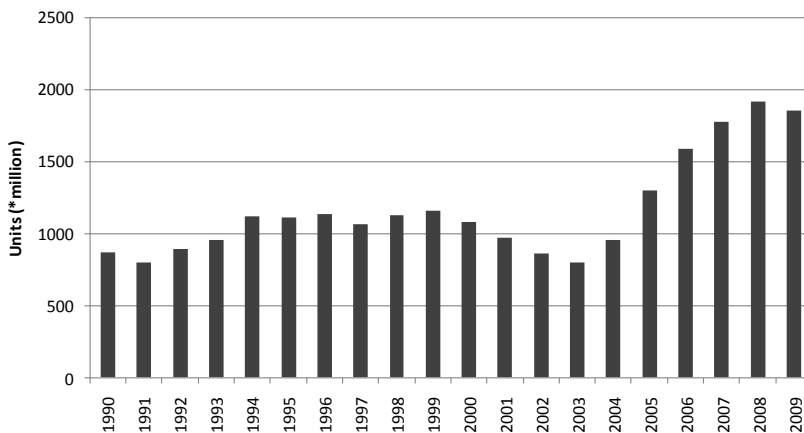


Figure 4 Total shipment music units in the US 1990-2009 - million units¹⁴

There might be another factor influencing the music industry, and this concerns changed user behaviour (apart from sharing music with peers). The United States is taken as an example here. Shipment statistics in the US are provided by the Recording Industry Association of America (RIAA). These are total statistics of all units sold in one single year (e.g. CDs, cassettes, music videos, digital downloads) For this analysis, they are compared from late 1990 to late 2009 (see Figure 4).

14 Data source: RIAA. It needs to be underlined that the RIAA did not take digital sales into account before 2004.

Taking a closer look at these sales data it can be stated that total shipment in the US showed a slightly rising curve from 1991 to 1994. The years 1994 – 1999 showed rather stable shipment figures. Sales started declining from 1999 (1,161 million units) to 2003 (798.4 million units) – a decline of approximately 31 per cent. This decline coincides with the year that file-sharing gained popularity. But sales took off again in 2004 (in this respect, it needs to be underlined that it was not until 2004 that legal digital downloads were included in the shipment statistics). In 2005 the sales even surpassed the number of 1999 sales (1,302 million units). In 2009, the sales declined slightly. But from 2008 on, the economic downturn is also an important external factor.

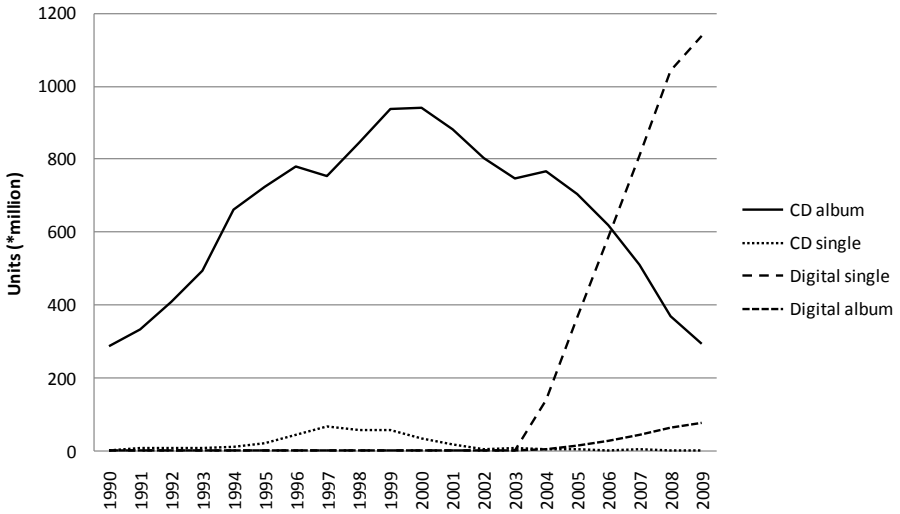


Figure 5 Shipment statistics per carrier 1990-2009 - million units¹⁵

In Figure 5, the shipment statistics of CDs and digital sales of music singles and music albums are compared. The decline in sales of CD albums is clearly visible and starts around 1999. From 2003 on, digital sales take off (numbers are provided by the RIAA). Between 2006 and 2007, digital single sales surpass the physical CD album sales. It seems that, through the years, digital single sales compensated for the decline in CD albums that are sold. The digital music album seems to have taken over the position of the CD single, and is only marginally sold. Looking at these figures, the claim that users have stopped buying music seems untrue. Users even started to buy more music than

15 Data source: RIAA.

before. But their consumption behaviour has changed. Rather than music albums, online they buy primarily single tracks.

The statistical data provided above suggests that digital sales make up for declining CD sales in number of units. But looking at the total *value* of music sales in the US, a steep decline is noticeable (see Figure 6).

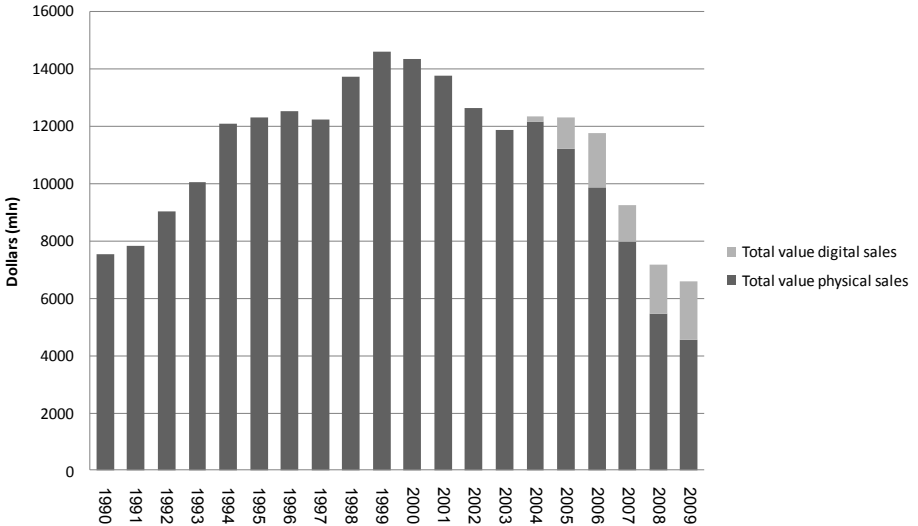


Figure 6 Total value US music sales 1990-2009¹⁶

In 1999, music sales were worth approximately 14.5 billion dollars. In 2009, although the value of digital sales rose, total music sales in the US were approximately 7.7 billion dollars – a decline in 10 years of almost 47 per cent. A similar percentage can be found in Sweden (Johansson & Larsson, 2009). This can be explained by a number of factors. The first reason was already mentioned above. Currently, users seem to be altering their consumption pattern. Traditionally, the number of CD albums sold was much higher than the number of CD singles. But online, this has shifted. As Figure 5 shows, the number of digital singles sold was growing exponentially, while digital albums are only slowly taken up by users. Seemingly, users are inclined to buy single tracks rather than entire albums. Secondly, the average price for CDs and CD singles compared to digital

16 Data source: RIAA.

downloads differs. In 2006, a CD cost on average \$15 while the average price of an album download was \$9. A CD single in 2006 cost on average \$4.50 while a single download cost \$1 (RIAA, 2007). In an RIAA press release in 2007 it is claimed that due to declining prices the CD offers more value than ever (RIAA, 2007a). The combination of changed consumer buying behaviour and dropping prices has also influenced the fall in revenue for the music industry.

2.5.3 The impact of legal digital music sales

The declining sales in the music industry can be put into historical perspective. Researchers showed that *illegal* digital music sharing is only one aspect of the drop in music income from sales. But by analysing sales data provided by RIAA, it becomes clear that *legal* online music sales *did* affect the music industry too. From 2004 on, the sales of online legal music took off. From that year on, the RIAA started incorporating digital sales into their reports. In 2006, the association of the recording industry worldwide (IFPI) claimed that within two years the digital sale of music has gone from nil to six per cent of the global worldwide revenues, which accounts for 1.1 billion Dollars (IFPI, 2006). In 2007, 15 per cent of all music sales took place online or on mobile devices and worldwide revenues were estimated at 2.9 billion Dollars (IFPI, 2008). The number of legal online music services rose from 50 in 2004 to 350 in 2006. In 2007 this number had risen to over 500. And over 6 million tracks were accessible legally for users to download (IFPI, 2008). In 2009, more than 25 per cent of record companies' revenues could be attributed to digital sales (IFPI, 2010). Digital sales had a market value of an estimated 4.2 billion Dollars. Furthermore, IFPI stated that 11 million music tracks were available through 400 legal music websites. In 2011, IFPI even claimed that digital channels overtook physical formats in providing the main revenue source in the music industry: an estimated 5.2 billion Dollars (IFPI, 2012).

This development influences a growing number of companies in the music industry which have adapted to the changed circumstances and offer online music legally. Apple, for example, introduced the iPod player in 2001 and opened their iTunes Music Store in 2003, competing with large online record stores like Wal-Mart (in the USA) and Amazon. In 2006, already one billion songs were downloaded from the iTunes store and in January 2008, Apple surpassed the other online retailers by covering 19 per cent of the online market for music downloads (Bangeman, 2008). For businesses, legal internet music sales open up a whole range of new business opportunities. Among other things, more individualized marketing, an increasingly diverse offering (long tail markets) and other ways to make money, for example, by starting music services based on streaming. Especially music service Spotify has become popular in recent years. Furthermore,

internet enables producers to offer their users personalized recommendations like the well-known 'people who bought this album have also bought...'.

Digitization and online distribution of music have had various other consequences for user/producer relations. Firstly, it has enabled users to change their consumption patterns. Rather than buying complete digital albums online, users were particularly interested in single music tracks. As the analysis shows, sales of digital singles rose faster than the sales of digital albums. Secondly, users are enabled to assume different roles in music services. Some legal services actively employ their users to distribute the music through P2P file-sharing, leveraging the large costs of servers to store music tracks. Furthermore, services like Weedshare and Altnet reward their users with respectively credits and money when they share their music files with other users. And the internet has significantly lowered the threshold for several new initiatives in the music domain.

2.5.4 New initiatives in the music sector

Firstly, the internet allows music producers to offer new distribution deals. Online music distribution takes on many shapes. Users are enabled to download music a-la-carte (such as in iTunes). But increasingly, users also start subscribing to music services (such as MusicStation and Spotify), non-DRM download services, advertising-supported services and brand partnerships (IFPI, 2008). Spotify, for example, offers users 15 hours of free streaming music. For a premium subscription, users can stream music without any time limits and commercial breaks. They can even download the music to an offline playlist for portable playback. In 2008, also Nokia and SonyEricsson offered mobile phone subscribers unlimited access to music.

Secondly, internet enables established artists to engage in new music deals. In 2007, the British band Radiohead released their album *In Rainbows* online for free (Pareles, 2007). Users were enabled to download the music and to pay whatever price they wanted for the album. According to ComScore, 62 per cent of all users who downloaded the album in October 2007 did not pay anything for it. But still, the average user (payers and non-payers taken together) paid \$2.26 per download (ComScore, 2007). Although this form of disintermediation proves successful for an established band such as Radiohead, it is not known to what extent this is also a profitable business model for lesser known artists.

Furthermore, the internet lowers the threshold for lesser-known artists to market themselves and sell their music to a large audience. According to a study by Madden

(2004), American musicians are using the internet as a tool to create, promote and sell their work. A large majority of 83 per cent of these American musicians say they provide free samples or previews of their work online. For example in social communities like MySpace, artists promote themselves. On this social network, more than 1.2 million rock acts and 1.7 million R&B acts are trying to gain popularity (IFPI, 2008). Some of them succeed, for example the Arctic Monkeys, Lilly Allen and Esmee Denters. But fourthly, besides unknown artists rising to fame themselves, record companies increasingly interact with artists in these networks. Social networks function as marketing networks for music producers. They sometimes allow users to share music files for promotion. Furthermore, online networks such as MySpace function as a breeding ground for new artists. Record companies pay attention to these sites, for they might popularize certain acts. They filter the offerings on these sites and try to contract new and popular artists. In this respect, they are once more trying to take on a gatekeeping role, and try to minimize uncertainty by spotting artists who already have a fan base.

But (lastly) users are also taking on these gatekeeping roles themselves, engaging in the selection process of bands. In this respect, an interesting phenomenon is crowd funding in the music industry, whereby fans can invest money to support artists they like. One example is the music service Sellaband (www.sellaband.com). The site started in 2006 and allowed users to invest in artists who present themselves online. For 10 Dollars, users can buy an interest in a band they like. These users are called believers. Every band gathering the support of 5,000 believers, equal to 50,000 Dollars, is allowed to make a CD. The possible profit this CD is going to make is split between the artist, Sellaband and the believers. In August 2008, 8,324 artists were registered on Sellaband, of whom 25 had reached 5,000 believers. At the end of 2009, 3 million Dollar was invested by users. In 2010, the service went bankrupt, but was able to find a buyer and re-start (Van Buskirk, 2010). At the beginning of 2013, they presented the 100th successful project (www.sellaband.com). Other fan-funded websites for music are Aucadia.com, Pledgemusic.com and Artistshare.net.

2.6 Transitions in the photo, film and video domain

As in the music industry, online developments have also influenced the film and video sector. First, film and video will be discussed, followed by photography.

2.6.1 Film and video

Halfway through the twentieth century, the experience of watching films became individualized. The introduction of television, video players and recorders enabled people to view and record films in their homes. Again, the US will be taken as an example here. In 1980, only one per cent of US homes had a video recording device (VCR). But the adoption of the VCR went fast. The percentage of homes with a VCR increased in five years to 20 per cent, and in 2000, 85 per cent of the US population had a VCR in their homes (University of Minnesota, 2007). Video recording devices reinforced selective viewing habits, since they enabled users to time-shift (Castells, 2000). In 1996, DVDs were introduced to the market. The percentage of households in the US that owned a DVD player rose from roughly 43 per cent in 2003 to 87 per cent in 2007 (MPAA, 2007). In 2002, more DVD players were sold than VCR players; around 40 million US households owned a DVD player. One year later, DVD sales surpassed box office profit (University of Minnesota, 2007). In 2006, Blu-ray was introduced, the successor of the DVD. In 2009, 17 million Blu-ray players were sold in the US (DEG, 2010).

2.6.2 P2P file-sharing

Similarly to the developments in the music industry, digitization and the internet allowed users to share films on a large scale. However, at first, these developments did not seem to be as disruptive as in the music industry. Partly this is explained by the fact that video files are much larger than music files. Particularly in the early file-sharing days, it took a long time to download a film through a file-sharing service – sometimes even multiple days. This made film downloading less popular than music downloading. It seemed as if the movie industry had not (yet) to worry. Nevertheless, the movie industry has always fought piracy – starting long before the development of the internet. In 1997, piracy losses for the US film industry were already suspected to be 2.2 billion Dollars; primarily related to the illegal sale of copies of video tapes (Moving Pictures Association of America [MPAA], 2004). In 2002, the Moving Pictures Association of America (MPAA) estimated losses for US producers at 3.5 billion Dollars. In 2005, this figure changed dramatically. The MPAA estimated losses to piracy worldwide at 18.2 billion Dollars, even more than the estimated losses in the music industry (MPAA, 2005). Throughout the years, due to increasing bandwidth, films are increasingly shared through file-sharing websites.

To counter piracy, the film industry adopted a similar strategy as the music industry. The MPAA states that the pyramid of internet piracy starts with people filming newly released movies in theatres (MPAA, 2008). They distribute the movies to users who

upload them to ‘top’ sites – sites that are hosted on high speed computers. Internet directories and search engines function as facilitators for the mass audience to start downloading. The base of the pyramid is formed by the millions of users connected in file-sharing networks. In a piracy report released in 2005, the MPAA indicates they employ a multi-method approach to fight piracy. This approach includes educating people about the consequences of piracy, taking action against copyright infringers, working together with law enforcement authorities around the world to fight piracy, ensuring that consumers have legitimate ways to get movies online through various sources and lobbying to strengthen copyright laws.

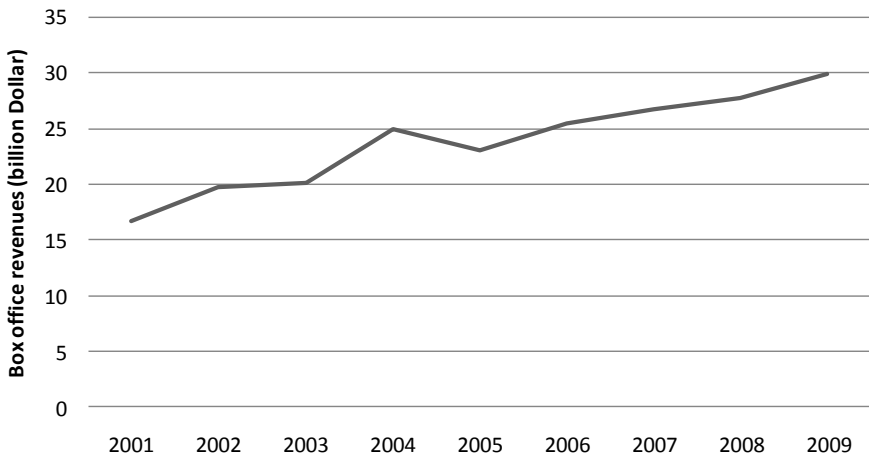


Figure 7 Worldwide box office sales in billions of Dollars 2001–2009¹⁷

How has user spending developed throughout the years? Figure 7 shows that global box office revenues worldwide kept increasing over the years. After a slight bump in 2005, box office revenues reached thirty billion Dollars in revenue in 2009 – an increase of almost 80 per cent in ten years. The number of admission tickets in the US and the European Union was also rather stable (see Figure 8). It seems that going to the cinema has stayed popular over the years.

Figure 9 shows the amount of money spent by consumers in the United States on films on carriers. Until approximately 2004, total sales rose. But after 2004, a decrease in

¹⁷ Data sources: MPAA, 2007; 2007a and MPAA, 2010.

total sales is visible. The first reason for this decrease is the decreased income via the sale of video cassettes (from 244 million units in 2003 to 300,000 units in 2007). This can be explained by the fact that since the introduction of the DVD player and DVD in the market since 1996, video cassettes became obsolete. The sales of DVDs rose sharply, but from 2006 on, when Blu-ray entered the market, the income through sales of DVDs decreased. This may be partly influenced by a lower number of units that is sold, but it can also be caused by a declining prize of DVDs. The sales of Blu-ray partly compensate for the loss of sales, but do not cover the losses completely. As the graph shows, in the film and video sector, paid digital downloads are not yet taking off.

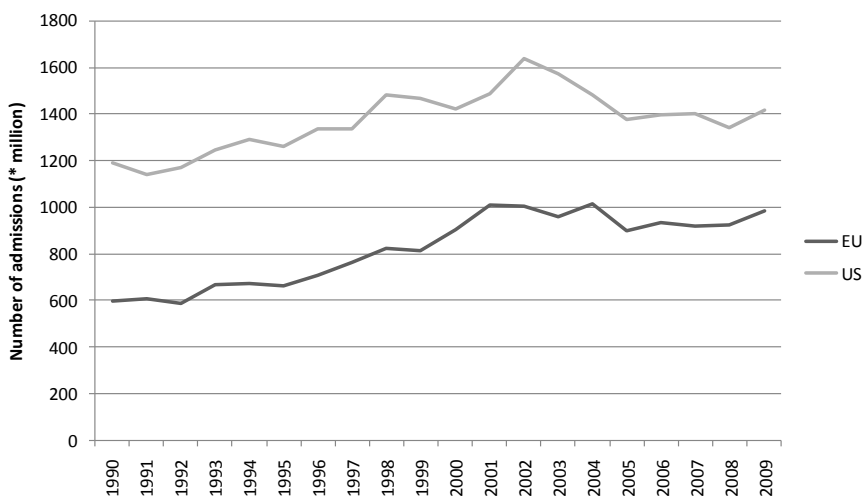


Figure 8 US and EU cinema admissions 1990-2009¹⁸

18 Data sources: MPAA and OBS Focus 1999-2010.

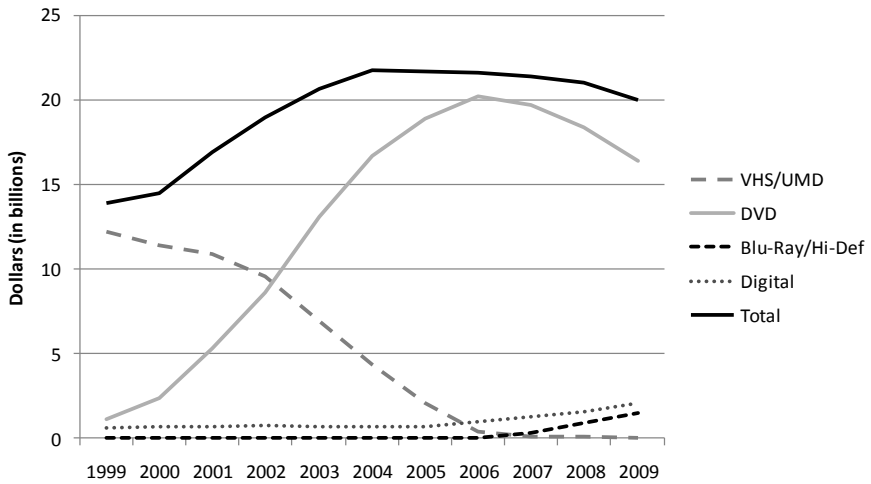


Figure 9 US consumer home entertainment spending 1999-2009¹⁹

2.6.3 Legal film services

As in the music industry, players in the film and video industry have increasingly embraced new distribution possibilities. Websites like CinemaNow, Vongo, Movielink, Movieflix, Pathe Thuis and iTunes video offer films online, competing with the supply of physical video stores. For a few Dollars or Euros, users can buy films digitally, take a subscription on a service or watch Video-on-Demand (the download is only temporarily available for watching). Increasingly, service providers who offer digital television include VoD services in their service offerings. According to the MPAA, VoD had a penetration of 8.8 per cent in US households in 2003. In 2007, this percentage had already risen to almost 28 per cent. Nevertheless, as the above graph shows, digital film viewing only slowly takes off. For example, since rights clearance issues in the traditional film industry organizations are complicated, geography still plays an important part in these services.

2.6.4 New initiatives

Besides legal film services that distribute traditional films in new ways, the internet has also enabled new innovative start-ups. And in these services, users very often take on active roles as content creators, publishers and judges. The most popular example is YouTube (www.youtube.com). In 2005, YouTube posted its first video online. The

¹⁹ Data source: DEG, 2010.

service significantly lowered the threshold for users to publish their own videos on the internet and reach millions of other users. One year and a half after the first video, the amount of videos had risen to 100 million. Users not only publish their own videos online, they also rate videos by others. YouTube features these videos on their home page. Furthermore users can comment on the videos by posting a message or adding another video message as response.

The popularity of YouTube grew exponentially. In January 2008, 79 million users were viewing more than three billion user-posted videos (Yen, 2008). The YouTube community got increasingly institutionalized over the years. Traditional media companies like broadcasters started using YouTube as a marketing platform. And it is also used as a political vehicle. In the 2008 American election, both nominees had their own YouTube channel. The popularity of YouTube and its future potential was further demonstrated in 2006 when YouTube was acquired by Google for 1.65 billion Dollars. Other sites that are focused on user-generated video are for example Dailymotion, Veoh, Vimeo and MSN Video. These platforms are, just like YouTube, primarily used to watch short movie clips.

2.6.5 Photography

Changes in the photography sector are primarily influenced by the developments in consumer electronics. In short, it has become increasingly affordable for users to make and edit their own photos. Since 1989, photos can be digitally manipulated on a home computer (University of Minnesota, 2007), but these possibilities were still mainly reserved for professional parties. But this changed at the end of the 1990s. In 1998, digital cameras were available for the general public and in 2000 the camera phone was introduced in Japan (University of Minnesota, 2007). In 2004, worldwide digital camera sales were expected to reach nearly 53 million units (InfoTrends, 2003). In 2007 this number had risen to 114 million (Shankland, 2007). The adoption of digital cameras and camera phones makes analogue cameras and rolls of film practically obsolete (except for a very small group who still use them). In 2006, 85 per cent of the 29.8 million sold cameras in the US was already digital (Ammelrooy, 2007). The struggle of incumbents to adapt to changed circumstances can be illustrated by the recent efforts of Kodak to sell patents to prevent bankruptcy.

Users have been enabled to take pictures much easier and faster with their digital cameras and telephones. Underlying this trend, online options to store, share and edit photographs also expanded. Online services allow users to create digital photo albums and print their photos on photo paper, t-shirts, mugs and bears. Internet communities,

for example Flickr, let users store, manage and share their pictures on a large scale. Flickr is owned by Yahoo! and enables users to store and tag their photographs so they can be more easily found by and shared with others. Like many other web services, Flickr is free of charge. Users are allowed to upload 20 MB of photos each month. For a yearly subscription fee, users can buy a Flickr pro-account, by which they expand their account to up to 2 GB. Other users can search the photos and comment on them. Flickr teams up with different other services, so users can have more possibilities; for example numerous blogging applications are linked with Flickr.

Other interesting photo sharing services are websites like iStockphoto and Fotolia. Many services try to keep the threshold for participating as low as possible and let users share photos for free. They try to obtain as much users as possible. But iStockphoto employs a different strategy. Every user who wants to upload photos to their website is screened. The quality of the photos must match certain pre-defined criteria. If users are allowed to participate, they may upload photos and share revenue with the service when their photos are sold. By being selective, these services try to improve their value for others.²⁰

2.7 Transitions in broadcasting

The broadcasting domain consists of radio and television. First, the developments in the radio domain will be discussed, followed by television.

2.7.1 Radio

The most important technological developments in the realm of radio took place long before 1980. At the end of World War II, almost all US households already owned a radio. Radio stations were privately owned or publicly funded. After World War II, the FM radio broadcast was introduced. In 1981, digital radio broadcasting took off in Germany (Ofcom, 2007). The first digital transmissions took place in 1988. Since 1994, radio stations are extending their distribution channels online (University of Minnesota, 2007). Audio recordings of live events can be streamed on the internet since 1995 (University of Minnesota, 2007). Radio channels started websites and offered their music through their own internet stream, bypassing traditional radio transmitters.

²⁰ This paragraph is adapted from Slot and Frissen (2007).

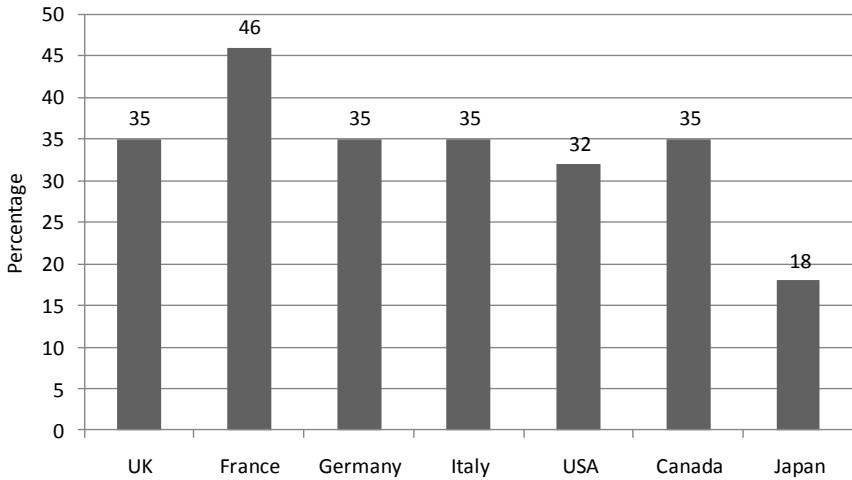


Figure 10 Online radio consumption 2007²¹

In 2007, Ofcom (the British regulator and competition authority for the communications industries) published a report on the international communications market, providing radio industry statistics on the UK, France, Germany, Italy, the US, Japan and Canada. In these countries, people listened to the radio on average more than 150 minutes a day. The countries have 15,860 licensed radio stations (in the US alone, 13,000 radio stations exist). Generally, users listen to radio through different devices such as digital radio, personal audio players, mobile phones and the internet. Figure 10 shows the percentages of users listening to online radio in 2007. In the UK, 35 per cent of the public listened to online radio broadcasts. In France, this percentage was even higher. In 2010, the percentage of 15-64-year-olds that listened to online radio had increased to approximately 55 per cent (Ofcom, 2010). The Ofcom research furthermore shows that on average 22 per cent of the users listened to radio less frequently since they started using the internet.

21 Data source: Ofcom, 2007.

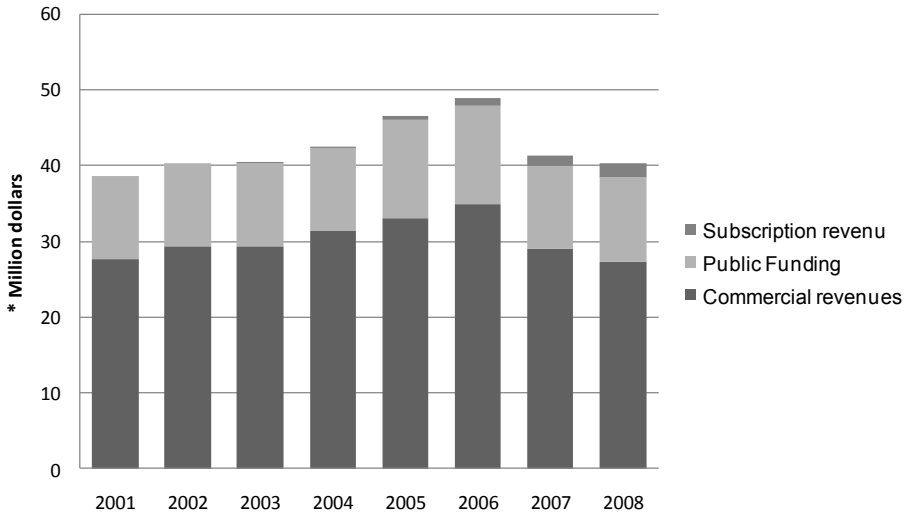


Figure 11 Global radio industry revenues 2001-2008²²

Figure 11 shows global radio industry revenues between 2001 and 2008. Until 2006, global revenues kept rising. In 2007 and 2008, the industry saw a decline in revenues. It is unclear whether this decline is compensated by digital revenues.

2.7.2 New initiatives

The internet also enables new radio initiatives. Not only traditional broadcasting stations are extending their services online. Many streaming music services that build upon the consumption patterns of the users have started to operate. Examples are LastFM (www.last.fm) and Pandora (www.pandora.com). To take Pandora as an example, according to the Digital Media Association, with more than 15 million registered internet users, Pandora was the most popular American online radio service in 2008 (www.digmedia.org). The service helps users discover the music they like. A team of music analysts has ascribed characteristics to songs, based on a classification system that includes e.g. melody, harmony, instrumentation, rhythm, vocals and lyrics. Users can compile a radio station (music stream) based on their own favourite artist. Pandora will complement the stream by adding music similar to the music chosen by the user. At any time, a user can rate the song that is played and let the service know

²² Data source: PricewaterhouseCoopers in: Ofcom, 2007; Ofcom, 2010.

whether they like it or not. The service will alter the stream according to the preferences of the user. Users can create up to 100 different stations.

Besides listening to their own radio stations, users can also share stations with people they know. The service can be used for free. Pandora generates income by placing advertisements on the website. Users who do not want to look at the ads can subscribe to the service by paying an annual fee. Furthermore, the music that is played can be instantly bought from iTunes or Amazon. At this moment, due to licensing constraints, Pandora is only allowed to offer music to residents of the United States. LastFM offers a music service based on collaborative filtering. Users pick a number of songs they like, and LastFM broadcasts a number of songs that users who liked those songs also liked.

2.7.3 Podcasting

Another development related to online radio is the podcasting phenomenon. Podcasting is digitally recorded audio transmitted over the internet through streaming or downloadable as audio file. From 2004 on, users were enabled to listen to podcasts online. Downloading podcasts was made much easier for users in June 2005, when Apple issued a software upgrade for its online iTunes store. By downloading this upgrade, iPod owners could very easily search for and subscribe to podcasts for free (Friess, 2005). In the first two days since this software upgrade, users subscribed to one million podcasts. In addition to iTunes, other podcast directories also help users sort through the large amount of podcasts available online. In November 2006, Podcast Alley catalogued 26,000 podcasts with multiple episodes. In 2008 this number was up to 43,000 podcasts (Madden & Jones, 2008). In August 2010, the site had categorized more than 87,000 podcasts.

Accurate figures about the use of podcasts are hard to come by. Research data suggest that the popularity of podcasting is still lagging behind compared to for example P2P downloading. In 2006, Forrester claimed that in North America, 25 per cent of all users were interested in podcasts, but most interest stemmed from the need to time-shift existing radio and internet radio channels. And only one per cent of all households regularly downloaded and listened to podcasts (Li, 2006). Another research found that in 2006, 12 per cent of internet users in the US downloaded at least one podcast to listen to. And again only one per cent downloaded podcasts on a daily basis (Madden, 2006). In 2007, Edison Media Research claimed that still 63 per cent of internet users had never heard of the term podcasting (Webster, 2007). In their study, 13 per cent of the respondents indicated they had listened to a podcast. Podcast users are more likely to be active internet users. They tend to spend more time online during the week (13

versus 8 hours) and read blogs more often. In 2008, Madden and Jones found that in the US 19 per cent of internet users downloaded a podcast and 3 per cent download podcasts on a typical day.

2.7.4 Television²³

Just like radio, television is a widespread domestic mass medium. In 1988, 98 per cent of US homes owned at least one television set (University of Minnesota, 2007). In 1992, the UNESCO reported over 1 billion television sets in the world (Castells, 2000). Television is one of the media people spend most time consuming, and television viewing times have kept steady over the years. Nielsen Media Research (2006) stated that in 2005/2006 American users watched 4 hours and 35 minutes of television a day, up from 3 hours and 59 minutes in 1995/1996. Ofcom research shows that in 2006, users in the UK, France, Germany, Italy, the US, Japan and Canada watch on average 234 minutes (3.9 hours) of television per day (Ofcom, 2007). The amount of viewing time has remained relatively stable throughout the years (see Figure 12). And revenues in the worldwide television industry are steadily rising (see Figure 13).

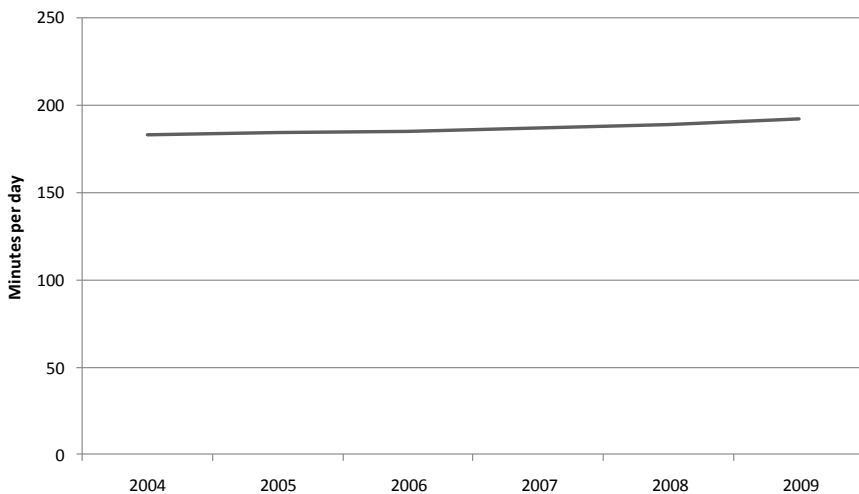


Figure 12 Global television viewing 2004-2009²⁴

²³ This section was partly adapted from Slot (2008).

²⁴ Data source: Eurodata TV Worldwide.

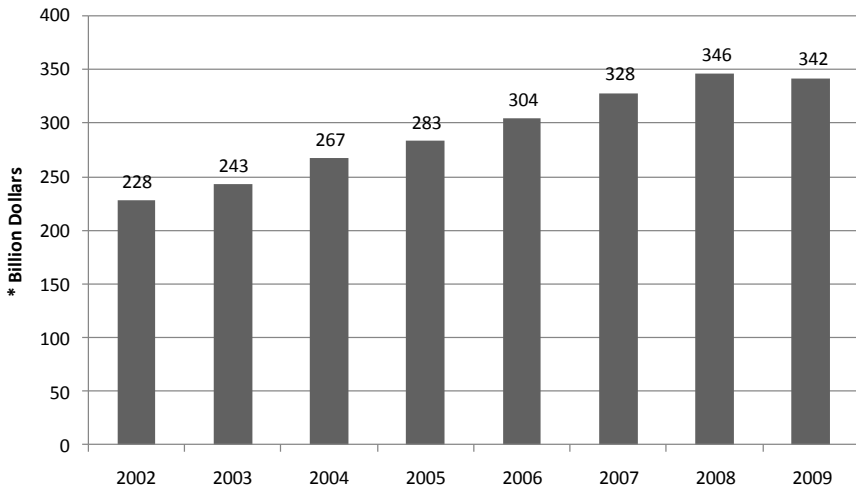


Figure 13 Global television revenue 2002-2009²⁵

Television viewers in the 1980s and 1990s can be classified as relatively passive consumers of content, since the broadcasting model for television was traditionally structured as a one-way system (Kim & Sawhney, 2002; Christensen, 2002). Broadcasting stations produce and schedule television programmes in certain time slots. This one-way system did not really allow users to directly react to viewed content. Apart from some early experimentation with interactive television content, viewer-programme interaction was hardly ever direct. A viewer could, for example, write a letter to the programme makers or call the television studio to make a comment or ask a question - or change channel to avoid unwanted content.

Since the 1980s, television offering has extended and diversified (Castells, 2000). In 1980 for example, CNN broadcast 24 hours a day. But the organization of the television industry remained largely unchanged until the 1990s. In 1994 the first digital satellite television service was offered in the US, followed by digital HD television in 2000. Many countries switched off analogue television in favour of the digital signal. In the Netherlands, the analogue signal was switched off in 2006, followed by Sweden in 2007. First and foremost the rise of digital television meant more channels with better picture and sound quality (OECD, 2004b). Rather than a maximum of thirty channels,

²⁵ Data source: PricewaterhouseCoopers in Ofcom, 2007; IDATE.

subscribers to digital television could receive many more. And including all internet TV channels, this number is even larger. Ellis (2000) characterizes this as the era of plenty, Todreas simply calls it the 'digital era' (Todreas, 1999). The supply side of television used this increase in channels to target the user more individually through 'narrowcasting' (as opposed to broadcasting). Television broadcasters allow their viewers to view programmes (on television or via internet) that have already been broadcast.

2.7.5 Interactive television

But besides more and better quality programmes and channels directed at various niche markets, television is increasingly becoming a two-way channel. Content providers have started experimenting with interactive programme possibilities. This interactivity has developed from simple information services to shopping services, voting and betting (OECD, 2003). But in spite of these new interactive possibilities, users of current interactive television applications still remain primarily consumers of content – only in a slightly more active way (Slot, 2008a). Most interactive programmes allow users to access information or additional content, for example background information about the subject, characters of the game show, deleted scenes or multiple streams of content at the same time. Sometimes, the user possibilities include a quiz or competition that has no direct relation to the shown content. Many digital shows allow users to vote for their favourite contestant. But users are rarely allowed to create their own content.

2.7.6 New initiatives

New parties have entered the field of television broadcasting. Telecommunication parties for example are exploring the possibilities of television on mobile phones. In France, Orange bought the mobile rights of sporting events like the Tour de France (Ofcom 2007). Mobile operators are first and foremost seeking cooperation with existing channels. Telecom Italia and 3Italia launched broadcast mobile TV services in 2006 and BskyB and Vodafone introduced Sky Mobile TV in 2005 (Ofcom, 2007). Also YouTube offers original programming channels. In France, for example, YouTube has teamed up with Ligue 1 and provides users with soccer footage.

On the internet, through IPTV or other streaming services, television is moving in a different direction. Newcomers are increasingly involving users as important actors. Several initiatives allow users to take up content creation roles themselves. These initiatives enable users to make their own movies or television programmes and publish them on the web. Various initiatives, such as Dailymotion, Youtube and Ifeeder may serve as an example here. People can tag their movies so they can be browsed easily. These are interesting initiatives, but are primarily directed at home videos, not real

television programmes. However, there are also some initiatives that are more focussed on television-like services. They organize the user input in channels. Often, these channels combine targeting niche markets with active user input. Others are more general user-made streams. Some even broadcast on regular television. Or it is a combination of video and weblogging or video and podcasting, like *vlogging*, *vodcasting*, *vcasting*, *video podcasting*, *popcasting* or *videoblogging*

Some examples: Worldmadechannel is a television channel that can be received through satellite. It is composed of photo and video footage of users around the world. People can send in their video files and be admitted in the broadcast. The videos are not accompanied by commentary, but by classical music. The user role is limited to content creation. A second example is DTV, an initiative of the Participatory Culture Foundation. DTV is an open-source platform for internet television and video. Users can download this programme for free, subscribe to channels, watch videos and build a video library. Furthermore, it offers users software through which they can actually publish their own video files and create internet TV channels. P2P technology can be used to eliminate bandwidth problems when a stream is viewed by a large number of people. Interactivity is not tied to fixed content. Users are free to create, produce and distribute their own content. Users fulfil roles in all parts of the value chain. Traditional broadcasting parties do not play any role of significance. And the value that is exchanged is non-monetary.

Some services use P2P file-sharing technologies to bypass distribution problems that may arise when only one server is offering content. P2P technology enables users to watch television over the internet in large numbers, while saving considerable bandwidth and server power. Dutch soccer fans used P2P file-sharing through Chinese services to have free access to soccer matches that in the Netherlands were bought and controlled by Versatel (Van Jole & Van Ringelestijn, 2005). The BBC employs a P2P network to make their broadcasts available up to seven days after the transmission date (www.bbc.co.uk/imp/). And in the Netherlands, scientists of the university of Delft developed I-Share; software for P2P streaming of multimedia content. Through P2P file-sharing networks, users help distributing television content themselves. By applying P2P architecture, only a few users need to have a subscription to a television service. These users can stream the television images to a large number of other users through network technology.

2.8 Transitions in the press domain

The press domain consists of newspapers, books and magazines. As was already stated at the beginning of this chapter, the press is the oldest mass medium. The first books were printed in the 15th century. The first newspapers were published at the beginning of the 17th century. Over the years, the press increasingly experienced competition from new and emerging media like television, radio, and the internet. First the developments in the newspaper sector will be discussed, followed by books and magazines.

2.8.1 Newspapers

Every year, the World Association of Newspapers (WAN) carries out a survey on the newspaper industry. In 2004, they reported that worldwide circulation of newspapers roughly grew 2 per cent, taking global sales to a new record of 395 million daily newspaper copies (WAN, 2005). Since 2000, the number of global titles has risen by 4.6 per cent per year. In 2007, the number of daily newspapers had grown to 532 million and 540 million in 2008. In 2009, the global newspaper industry witnessed a decline of 0.9 per cent, due to the economic downturn. In some countries circulation had already fallen longer and faster, for example in the US and various countries in the European Union like Germany and the Netherlands. Since 2003, newspapers in the European Union witnessed a drop in the circulation of paid-for newspapers by almost six per cent (WAN, 2007). Traditional subscription newspapers were increasingly competing with free newspapers like Metro and online news sources. Research shows that the total average circulation per day of paid-for-dailies in the EU-27 has sharply declined in the past five years (Leurdijk, Slot & Nieuwenhuis, 2012). Between 2005 and 2009, the total average circulation dropped from almost 85 million newspapers to 74 million newspapers – a decline of approximately 12 per cent (Leurdijk et al., 2012).

In 1999, 347 million people bought a newspaper every day, and in 2004 this number was up to 395 million (WAN, 2005). The daily readership of newspapers was estimated at one billion in 2004 and 1.7 billion in 2007 (WAN, 2008). Since the adoption of the internet, users are increasingly turning to the internet to read news messages. This is possibly influencing readership of traditional subscription newspapers. In the US, in 1974 around 72 per cent of the population could be considered regular newspaper readers (Distripres, 2005). But in 2000 this figure was down to 57 per cent. In the European Union, that year 62.1 per cent of the adults read a newspaper every day (WAN, 2000). Also after 2000, the number of people with a newspaper subscription declined. The statistics vary between various European countries. While in 2008 in

Sweden 83 per cent of adults read a newspaper every day (down from 87 per cent in 2005), in the UK, this percentage was 33, and in France it was 44 (Leurdijk et al., 2012).

But despite declining newspaper readership, the demand for news remains high. Research by McKinsey shows that in the UK, in the last three years, the time spent on news rose by twenty per cent. UK citizens spend 72 minutes on news every day (Nattermann, 2010). In the US, researchers reached similar conclusions (Pew Research Center, 2010); Americans spend approximately 70 minutes on news a day, and digital platforms play an important role in these news consumption practices. Research shows that news readers have fragmented over different platforms and news services and use various sources to stay informed (Leurdijk et al., 2012). For example, Purcell, Rainie, Mitchell, Rosenstiel and Olmstead (2010) estimate that almost half of all Americans use around four to six different platforms for news consumption a day, which varies from television to newspapers to the internet and mobile applications.

2.8.2 Digitization

The internet has had major consequences for the production and consumption of news and has changed the traditional roles of newspapers as content providers, agenda-setters and watchdogs (Boczkowski, 2005; Picone, 2007). In the 1980s, newspapers started experimenting with technological possibilities like videotex and teletext. Furthermore, newspapers were increasingly written, edited and printed at a distance (Castells, 2000). Reporters were taking advantage of the technological developments and used portable computers in their jobs. For example the TRS-80 portable computer was often used by reporters in the field (University of Minnesota, 2007).

Slowly, newspapers turned to the web as a new publishing environment. In 1980, the *New York Times*, *Wall Street Journal* and *Dow Jones* offered their news in an online database. And in 1985, 50 newspapers were offering online access to news texts. In 1992, this number had risen to 150. According to Boczkowski (2005), from 1995 on, newspapers focused on the web as their preferred non-print publishing environment. This is demonstrated by the numbers of online newspapers; in 1998, more than 750 American newspapers had internet sites (Boczkowski, 2005) and in 2000 this number was up to 1207, a growth of 37 per cent (WAN, 2001). After 2000, growth slowed down, but still the number of online news websites grew steadily; from 2003 to 2007 by almost 51 per cent. From 2006 to 2007 this growth rate was almost 14 per cent (WAN, 2008). According to Boczkowski, newspapers were reprinting original content from the paper on the web, increased their usefulness by adding related content and published new content (for example updates of news stories).

According to Boczkowski, traditional newspaper businesses face seven changes due to the dynamic potentials of digitization and being online. First, rather than being a largely generalized product, news making is easily customizable for the users. Secondly, newspapers are no longer bound to the spatial limitations of newsprint. They can offer much more (background) information. Thirdly, since distribution costs are lower, newspapers can cater to both the micro-local and the global audience. As a fourth change, Boczkowski states that traditionally, newspapers had a 24 hour duration. After 24 hours, they were outdated. Now they are permanently available as a digital archive for users. Fifth, the organization of the news is much more complex due to the possibility of constant updates. Just like television, newspapers can cover news stories without interruption. Sixth, rather than plain text and still images, newspapers have more multimedia at their disposal. They can incorporate videos and audio into their news reports. And lastly, Boczkowski argues that the users are conceived as being increasingly important. Rather than having a one-to-many orientation, the relationship between users and newspapers has become much more dynamic.

Users increasingly turn to the internet for their news. Research by Horrigan in 2005 showed that traditional media organizations dominate online news sources. Reading news is the third most popular online activity for Americans on an average day, after checking e-mail and conducting a search (Horrigan 2006). From 1999 to 2004, WAN reported that the audience for newspaper websites grew by 350 per cent (WAN, 2005). Horrigan found that 35 per cent of internet users check online news every day and almost one-third of all American internet users are reading traditional newspaper websites. In the Netherlands, researchers found similar figures. In 2007, one out of three Dutch internet users was visiting a traditional newspaper website at least once a month. In 2008, this percentage was up to 47 per cent (Cebuco, 2008). And where the older age groups indicate that television is their most important news source, youngsters rely more on the internet (Slot & Munniks de Jongh Luchsinger, 2011).

The introduction to this dissertation already dealt with the participating possibilities of the audience . Also in the news sector, participation is integrated into news services. Mainstream media companies are increasingly anticipating the importance of users by giving them a role on their website. For example, on the BBC website, users can upload their own photos and videos if they have witnessed a news event. Many newspapers let users comment on a selection of articles, and some add blogs or user sections to their website. The changes in the relationship between the newspaper journalists and their audience are further explored by Picone (2007). He links these changes directly to the three traditional roles of newspapers. The first major change can be seen in the role of

the newspaper as agenda-setter. Based on research by Althaus and Tewksbury (Althaus & Tewksbury, 2000 in: Picone, 2007), Picone claims that on the internet, users have much more freedom to compose their own information environment and share it with others. Services like Digg let users tag news messages and rate them. News portals like Google News, citizen journalism and the blogosphere are also demanding attention from users. The internet is a fast, easy and cheap way to gain access to numerous news sources. This enables users to set their own peer-driven news agenda, limiting the power of the newspapers as an agenda-setting force in the process.

A second change is in the traditional role of the newspaper as watchdog or fourth estate. The internet enables users to publish their own versions of the truth or their opinion about news messages online. The collective intelligence of the users plays an important part in this respect. The internet audience will most likely have other information about news 'facts' and can contradict traditional news sources online more easily. Websites such as Wikileaks post secure information online for all users to see without editing the information beforehand. Thirdly, the role of the press as news provider changes with the increased competition from other news sources like free newspapers and online news sites and blogs. All news is available for free online. According to Picone, the function of the traditional newspaper is shifting from gathering news to selecting, analysing and commenting on news. But Picone claims that newspapers still do not fully embrace the new possibilities presented to them by the internet. They are approaching the new possibilities in "*a conservative and rigid way*" (Picone, 2007, p.102).

Obviously, the internet has changed traditional user/producer relations in the newspaper domain. This development is reinforced by the fact that on the internet, not only traditional news sites provide the news. Users are also increasingly getting their news online from other sources.

2.8.3 New initiatives: citizen journalism and blogging

In addition to the rise of web portals like Google news that collect news messages from different online news sources, users increasingly have the tools to create their own news. Many citizen journalism websites offer users a platform to publish news themselves. OhMyNews, for example, is a South Korean online newspaper (www.ohmynews.com). Instead of a number of professional journalists, the website generates news written by a small staff and (for the largest part) by its users. In 2000, under the motto 'Every citizen is a reporter', 727 reporters started gathering news and posting messages online (Yeon-Ho, 2007). In 2007, this number had risen to over

500,000 reporters from 200 countries. Citizen journalists who publish on OhMyNews are paid by the service if they produce a headline story (approximately 50 Euros). They can also receive donations from readers who appreciate their story (Yoo, 2007). Citizen journalism services can also be found in other countries, for example Purdafash in India (purdafash.com), Vikalpa in Sri Lanka (www.vikalpa.org), iReport, the citizen journalism website of CNN (www.ireport.com) or Newassignment.net, an international 'open platform' journalism website, maintained by an investment by Reuters in 2006 (www.newassignment.net). This shows that not only grassroots initiatives provide users the possibilities for self-publishing, but also traditional news organizations provide users with a platform for publishing their own stories.

Also weblogs can be seen as a new publishing platform (Pascu et al., 2007). In 1994, the first weblog was written, but the term was not coined until 1997. On blogs, users provide regular entries of news or commentary on a large variety of subjects (Pascu et al., 2007). Since 2003, the number of blogs has risen exponentially. At the end of 2003, two million weblogs were tracked by Technorati, a blog search engine. In 2004 this number was up to around six million. In 2005, 20 million blogs were tracked and in 2006 62 million. In August 2008, Technorati tracked almost 113 million blogs (www.technorati.com). According to Technorati, each day 175,000 blogs are added to the blogosphere and bloggers post 1.6 million posts a day (18 updates a second). But it needs to be underlined that not all blogs are active. Blog content can be searched through blog search engines like Technorati, Feedster, Blogsearch (Google) and IceRocket.

Some journalists and publishers reacted (just like the music industry in the case of file-sharing) in a defensive way towards bloggers. They were afraid their traditional journalistic practice would become jeopardized. Bloggers 'stole' news messages and published them on their weblogs (Allan, 2005). They were also supposed to be unreliable and the quality of most blogs was, according to critics, very low. But increasingly, traditional newspaper businesses started incorporating blogs into their own websites. In Germany, the regional newspaper *Opinio* is fully composed of weblogs (Tomesen, 2006). The Dutch newspaper *de Volkskrant* offered visitors of their website a free weblog. And each week, a summary of all blogs that week was published in the paper version of the newspaper. But in 2011, the *Volkskrant* decided to stop blogging activities on their website, due to lack of technological support and time to moderate comments (Pleijter, 2011).

By the end of 2004, blogs were an important aspect of online culture (Rainie, 2005). In the US, 8 per cent of internet users aged 18 and older report keeping a blog (Lenhart & Fox, 2006) – this accounts for about 12 million Americans. In 2009, this rose to 11 per cent (Lenhart, 2010). Most of the bloggers are younger than the average internet population (54 per cent are between 18 and 29). In December 2005, 37 per cent of American internet users reportedly read blogs (Lenhart & Fox, 2006). And nine per cent of American internet users read news blogs (Horrigan, 2006). According to PEW Internet & American Life Project, in 2006, 54 per cent of US bloggers said they never published their writings elsewhere (Lenhart & Fox, 2006). It needs to be remarked that the survey of Pew in 2006 showed that one-third of all bloggers see blogging as a form of journalism. Most of them see blogging as a hobby. The institutionalization of blogging in the online domain is indicated by the Bloggies – an award for weblogs since 2001. There are national blog awards like the Dutch Bloggies. In 2005, the first conference on blogging was held in Paris (Elburg, 2005).

2.8.4 Books

In spite of the development of the film industry, radio and television, books still were one of the most important forms of mass media in 1999 (Compaine & Gomery, 2000). Particularly the paperback revolution in 1952 was a boost for book production, since paperbacks were sold at lower prices (Compaine & Gomery, 2000). In the United States, revenue in the book industry was up from 14 billion Dollars in 1989 to 23 billion dollars in 1999 (Compaine & Gomery, 2000) and 35.6 billion Dollars in 2006 (Book Industry Study Group, 2007). In the UK, the Publishers Association states that in 2007, 855 million books were sold in the UK, with an estimated value of almost 3 billion Pounds (The Publishers Association, 2007). Consumers spent around 2.5 billion Pounds on books. Nevertheless, in the Netherlands for several years, the Netherlands Institute for Social Cultural Research (SCP) reports that Dutch people spent less time reading books than they did in the past (SCP, 2006). It is not clear how much time people in other countries spent reading. But it is likely reading books has experienced more competition because users have started engaging in other media activities like watching television and surfing the internet.

Besides providing competition to readership, however, the internet offers the book industry many opportunities. In 1995, Amazon.com started selling books online. In seven years, the online retailer would carry more than 350,000 titles. As Compaine and Gomery (2000) state, the success behind Amazon is their 'sell all – carry few' strategy. By closing deals with a large distributor and a dozen wholesalers, Amazon was able to ship all orders the same day they were received. But this strategy proved out to be

rather expensive, so Amazon started building its own distribution system. In 1996 Amazon sold books for 16 million Dollars. This amount was up to 148 million Dollars in 1997, and 610 million in 1998. In 2006, revenues had increased to almost 4 billion dollars (Flynn, 2007). In 2003, Amazon furthermore scanned the text of 120,000 books for internet users to access. According to The Publishers Association, in 2007 almost ten per cent of the consumer books in the UK were purchased on the internet. In 2006 this percentage was only 8 per cent (The Publishers Association, 2007).

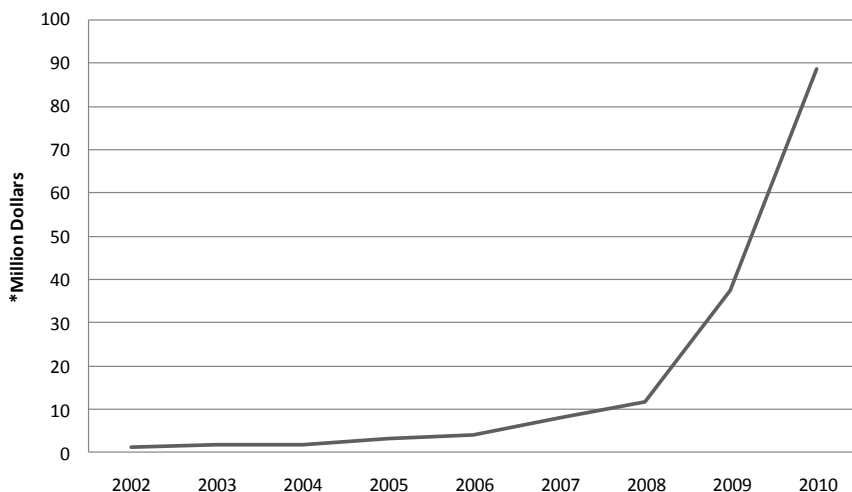


Figure 14 Sale of e-books in the US 2002-2010 (Q2)²⁶

The development of e-readers such as the Kindle and tablet computers such as the iPad has caused the demand for e-books to increase. In the US, sales for e-books were up from 1.5 million Dollars in 2002 to 88.7 million dollars in 2010 (see Figure 14).

2.8.5 New initiatives

In 2000, Stephen King's novel *Riding the bullet* achieved the status of best seller via internet downloads only (University of Minnesota, 2007). In the field of academic literature, Von Hippel (2005) and Benkler (2006) offer their books as free downloads online. Some authors post their book online even before it is published so they can gather comments on the content on the book (for example Leadbeater's book *We-*

²⁶ Data source: International Digital Publishing Platform [IDPF], 2010).

Think). In addition to the development of e-paper, the book industry is revitalizing audio books. Apple, for example, offers audio books by digital download in their iTunes store.

In addition to new consumption possibilities, the internet offers users the possibility of becoming book writers themselves. Users are enabled to publish their own books through services like Lulu, Cafepress, Xlibris and others. They do not have to send their books to publishing agents, but can take control of it themselves. By doing so, users can avoid traditional gatekeepers. Because of decreased production costs, books can be printed whenever one copy is needed. Another development is the intersection of weblogs and the book domain. In 2006, the Blooker Prize – an award for the best book based on a weblog or website - was awarded for the first time. In 2006, 89 books were judged. In 2007 this number had already risen to 110 books. The book that won in 2006, *Julie and Julia: My Year of Cooking Dangerously*, had already sold 100,000 copies in 2007 and was made into a film (BBC, 2007).

Other developments are the spread of collaborative content projects like wikis. The most important provider of these content projects is the Wikimedia Foundation Inc., owner of online encyclopaedia Wikipedia. In 2001, Wikipedia started, providing users the opportunity to write their own encyclopaedia. In August 2010, the English Wikipedia contained almost 3.4 million articles. Since July 2002, users have made more than 240 million edits to articles with an average of 17.2 per page (www.wikipedia.org – statistics). Daily, Wikipedia attracts between 8 and 12 per cent of all internet users. But the Wikimedia Foundation does not only limit itself to an online encyclopaedia. It is offering a user-generated dictionary (Wiktionary), a compendium of quotations (Wikiquote), Wikisource – an online library of free content publications, a service devoted to learning resources on all levels (Wikiversity), Wikinews – citizen journalism and Wikibooks, an online wikimedia community offering a free library of educational textbooks.

2.8.6 Magazines

Throughout the years, the number of magazines published has risen steadily. In 1998 the US counted over 11,800 periodicals, up from 6,600 in 1950 (Compaine & Gomery, 2000). Most magazines have a rather small circulation and focus on niches. Between 1980 and 1990 the magazine industry was booming. In the US in 1990, the value of shipments was estimated at 20.7 billion Dollars – a 132 per cent increase compared to 1980 (8.9 billion Dollars) (Compaine & Gomery, 2000). After 1990, this growth slowed down, but there are no indications that magazine readership has declined. As reproduced on the website of the Periodical Publishers Association (PPA), the

Advertising Association estimates consumer spending on magazines in the UK in 2006 to have risen to nearly 2.2 billion Pounds (1.4 billion magazines), up from 1.7 billion Pounds in 1997 (PPA, 2008), see Figure 15.

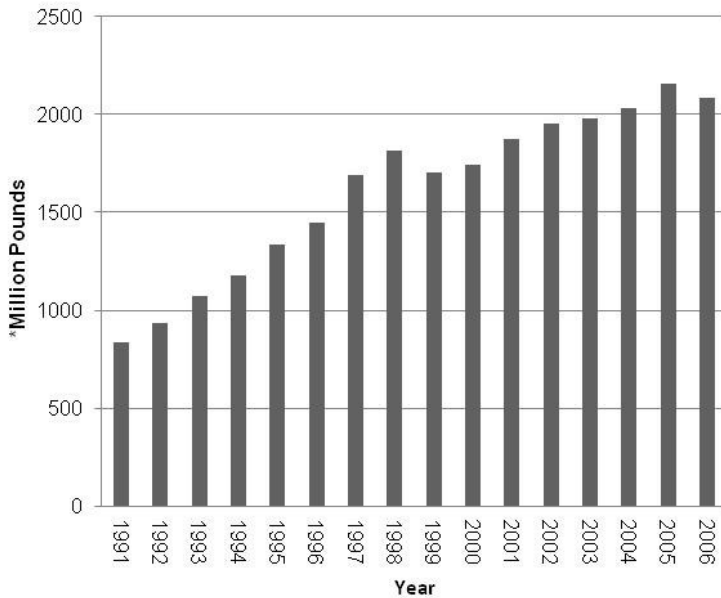


Figure 15 Consumer expenditure on magazines UK 1991-2006²⁷

As Compaine and Gomery (2000) argued, organizational trends but also more general developments aroused far fewer emotions in the magazine sector than in newspapers or television. Traditionally, the magazine industry was much more fragmented and directed at niche markets than other mass media. Furthermore, relatively few barriers to entry existed as opposed to other media sectors. In contrast to the great turmoil caused by the introduction of the internet in the music and newspaper industry, magazine producers have entered the online domain rather silently. Nonetheless, digitization and the move of audiences to the online domain have caused shifts in business models for magazines.

On its website the International Federation of the Periodical Press (FIPP) reproduces statistics of online magazines. They focus on digital reproductions of existing magazines.

²⁷ Data source: Advertising Agency, PPA, 2008.

They state digitization of magazines is growing substantially. The second half of 2004 showed a growth of digitalised magazines of 34 per cent compared to the first half of 2004 (FIPP, 2006). But still, the transfer of magazines to the internet is supposedly not taking a high flight. Paxhia and Rosenblatt (2008) state that in 2005 only 661 consumer magazines offered digital replica editions. In 2007 this number had increased significantly to 1,535. Digital subscriptions grew from 3.1 million in 2005 to 6.2 million in 2007, but still this represents only a small percentage (1.5 per cent). Nevertheless, almost all magazines today have a website where they provide (at least) part of their content and offer extra information about subscriptions and the like. Furthermore, they open up their archives to the public. Since the introduction of tablets, digital content seems to become more important for magazine publishers. An American Magazine Study in 2011 showed that consumers relied on digital subscriptions more often. For example, of all the Times Inc. Magazines, 55 per cent of the consumers relied on print only, while 30 per cent read the magazines both digitally and in print and 15 per cent access Time Inc. content in digital form only (Robinson, 2011). The adoption of the iPad and other tablets in recent years is expected to change magazine readership even further.

2.8.7 New initiatives

In the magazine industry, besides new business initiatives of existing players, also new initiatives of newcomers are launched; so-called e-zines, webzines, cyberzines or hyperzines. These magazines are solely internet-based. Internet magazines have lower production costs and a large audience of potential readers. The first e-zines emerged from digital newsletters halfway the 1980s. One example of an online magazine is *TheWriteThing* (www.thewritething.org), an online literary magazine where users can submit articles for publication. Some web magazines that started out online, for example *Literary Chaos Magazine* (litchaos.com) and *Zygote In My Coffee* (zygoteinmycoffee.com), have moved from online to print.

2.9 Transitions in the games sector and social networking

As explained in the introduction, in addition to digital games, social networking sites are also included in this research. Traditionally, the games industry produced games that required users to take on a much more active (lean-forward) attitude than in the other media sectors. By playing games, users needed to engage in the game play. This focus on interactivity has made games very suitable online media products. First, digital games will be discussed; subsequently social networking sites will be reviewed.

2.9.1 Digital games

In the 1980s, home video games grew in popularity. Pong (1975) and Pac Man (1980) were introduced and became very popular. In quick succession, various game consoles entered the market. In 1982, the Commodore 64 was introduced. In 1986, Nintendo introduced the game boy. In 1991, Sony introduced the PlayStation. In 2000, Sony introduced the PlayStation 2, followed in 2001 by Microsoft's Xbox. Currently, the eighth generation of game consoles is on the market – the Xbox 360, PlayStation III and Nintendo Wii.

In addition to console games (video games), a large user group play games on their personal computer. Computer games are often cheaper and game genres are more diversified. The threshold for producers to create console games is much higher. Consoles are not designed as open platforms. Hardware producers like Microsoft and Sony are very strict gatekeepers. Every company that wants to produce a title for a console needs to enter a procedure of quality control and to pay a large fee to the console producer. Even in the final stage of production, Sony or Microsoft can refuse to publish the game. This is in sharp contrast to the production of computer games. Since the computer is an open platform, every developer can create a computer game.

Generally, the games industry shows a growth in revenue. In 1982 the video game industry was valued at 1.5 billion Dollars (Intellivision, 2008). In 1991 video game industry revenue was up to 4.7 billion Dollars (Shapiro, 1991) and in 1994 it accounted for 7 billion Dollars (Markoff, 1994). Worldwide revenue of the games industry in 2003 was around 21 billion Dollars, up from around 17 billion Dollars in 1999 (OECD, 2005). In Figure 16, the total of US game revenues is shown between 2005 and 2009.

Many people believe that the traditional stereotype gamer is a male under thirty. But in practice, the audience for games is much more diversified. In 2004, more than half of all Americans play video games (University of Minnesota, 2007). The Entertainment Software Association (ESA) claims on its website that the average gamer is 35 years old and has already been playing for 13 years (www.theesa.com). Traditionally users could only play games on their console or personal computer. Games could be played individually, against an opponent present in the same room or against the computer. So in spite of the lean-forward attitude required by these games, users were only interacting with the computer or people present in the same room. The internet provided a platform to expand this interactivity. Particularly with the spread of internet games, the game playing audience has further diversified. Rather than a dominantly male user group, 40 per cent of all gamers now are women. Around 56 per cent of the

game playing audience are playing computer games, while 44 per cent play video games (Jarett et al., 2003).

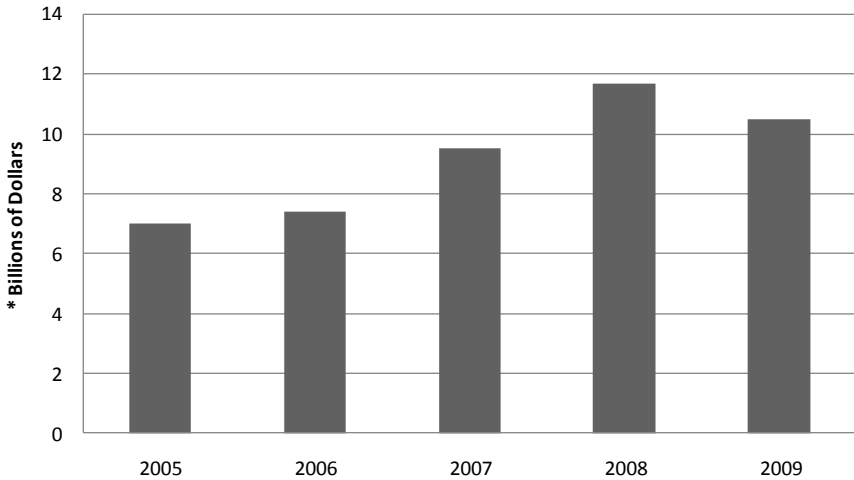


Figure 16 US game revenue 2005-2009²⁸

2.9.2 Internet possibilities

With increasing internet penetration and technical possibilities, game providers offer their games online. Microsoft offers Xbox Live and Sony offers online possibilities via the Playstation 2. To have access to online game play, users must pay a fee. In their Xbox live surroundings, Microsoft can stimulate user involvement by creating a community of gamers that can contact each other. Even when they are not playing games, users can see which friends are online and what games they play. Microsoft organizes events to stimulate playing and offers for example extra levels or games players can download immediately. Sony offers a similar environment on the Playstation III.

In 2003, Jarett et al. expected online gaming to be the future for the computer game industry. Based on calculations by PricewaterhouseCoopers, the OECD estimated online and mobile games revenues to surpass regular computer game sales in 2005. In 2007, the computer game industry earned 10.7 billion Dollars, of which 4.8 billion Dollars came from online PC games (PC Gaming Alliance, 2008). Increasingly games were played

²⁸ Data source: The Entertainment Software Association [ESA], 2010.

online. The games industry was expecting to generate revenue on the internet in various ways – through subscriptions, retail, extra income for users wanting to play on premium servers, customer services and character and objects sale (Jarett et al., 2003). In 2007, research agency EDC claimed that in North America, online console revenue would triple from 133 million Dollars in 2006 to 583 million Dollars in 2007 (IDC, 2007). On mobile devices, like mobile phones and WiFi enabled electronics like the iPod Touch, games are offered.

Internet games have developed from (often) text-based MUDs (Multi-User Dungeons) to highly elaborated 3D worlds where users can walk around. These game environments offer users the opportunity to emerge in a fantasy world. In 1993 the first commercially interesting internet game was introduced: Doom (OECD, 2005). Other online games with similar popularity are World of Warcraft (6 million online players in 2006), Ultima Online, The Sims and Final Fantasy. But besides these large-scale internet games, millions of other smaller games have been developed. Online, users have been enabled to play against all the other players engaging in the game play at that time. Sometimes, users pay money to play. They have a subscription to a game service or gamble online. Furthermore, digital items for use in 3D virtual worlds are created and sold at a large scale.

By adding their own content or shaping (part of) game environments, users take an active role in creating the content. For example in the online game the Sims, users create part of the objects. And in racing game Forza Motorsport 2, users can customize their own car and sell it to other players. Little Big Planet offers users the opportunity to create their own environment. Sometimes, users modify an existing game (which is then called a *mod*). An example is the first-person shooter Quake. The source code of Quake is free for users to take and modify. This has resulted in many (sometimes very popular) modifications, for example Team Fortress and Threewave Capture the Flag.

2.9.3 Social networks

The line between online game communities and online social networking sites is not fixed. Online communities such as bulletin boards and Multi User Dungeons (MUDs) have been popular ever since the internet was available (Rheingold, 1993). But not until 2002 did online communities take a high flight, connecting millions of users. In these online communities such as Habbo, the distinction between social community and game is not always easy to make. Because these environments are open, users have much more opportunities to shape the environment the way they want. For some users, Habbo will be a social community, a place where they can meet other people. For

others the environment will serve as a digital playground, where they can try out different characters and immerse themselves in a fantasy world.

Since the beginning of the 21st century, multiple social networks have entered the online domain. In 2002, Friendster was launched. In this network users could create their own profile and meet friends and friends of their friends. Friendster quickly grew in popularity. In 2003, MySpace and the virtual world Second Life started, followed in 2004 by Facebook. Until approximately 2008, MySpace held the position as the largest social networking site in North America with more than 110 million members (Owyang, 2008). On this network, owned by News Corporation, many artists had profiles to promote their music. But after 2008 this position was taken over by Facebook. In 2008 the website had over 60 million members and more than 65 billion page views a month (Owyang, 2008). Facebook has an open platform, enabling users and third parties to produce applications building on the Facebook functionalities. In 2012, Facebook reached 1 billion users.

All social network sites have grown very rapidly. According to Nielsen/ Netratings, the top 10 social networking sites in April 2006 had an audience of 68.8 million users, up from 46.8 in April 2005, reaching 45 per cent of all internet users (Nielsen/NetRatings, 2006). In 2009, 73 per cent of all American teens (aged 12 – 17 years old) had an account on a social networking site. In 2008, Second Life generated a lot of attention in the press. Businesses and organizations created virtual presences in Second Life, but particularly users were very important in creating the online surroundings. In 2008, 15 million users had created an avatar. It needs to be underlined that not all users are online regularly. For example, on 5 September 2008, Linden Labs – the creator of Second Life – stated on its website that 765,814 users had logged in during the last thirty days. More than 63 per cent of Second Life users are aged between 25 and 45. In 2012, Second Life seems less of a hype, but still thousands of users visit the 3D world daily (www.lindenlabs.com).

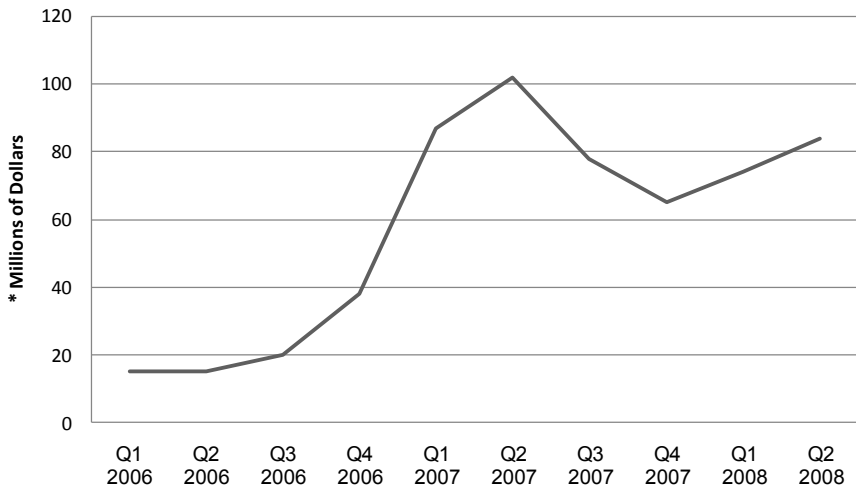


Figure 17 User to user transactions in Second Life 2006-2008²⁹

An interesting characteristic of Second Life is that users create a large part of the 3D surroundings and objects. And the virtual world has a real economy. Figure 17 shows user-to-user transactions in Second Life in millions of Dollars. Users not only spend money in Second Life, some also earn money there. In August 2008, although more than half of all users earning money on Second Life earned less than 10 Dollars, 218 users made more than 5,000 Dollars.

2.10 Conclusion: user roles and user/producer relations today

The 1983 *Time Magazine* cover shown at the beginning of this chapter illustrates the underlying theme of this dissertation. The cover shows an unidentified, see-through person sitting in front of a personal computer. All the attention is directed at the machine and the user is almost like a ghost – practically non-existent, and his posture looks passive. But this changed. In 2006, the user was crowned person of the year by *Times Magazine* (Grossman, 2006, see Illustration 2). The 2006 cover still shows a computer, but the screen is directed at the viewer. The user is not unidentified anymore – it is you. Computers and the internet have been the tools by which users have positioned themselves as important actors in the value creation process. This chapter has illustrated this change for five media sectors.

²⁹ Data source: Linden Labs, 2008.



Illustration 2 Time Magazine 2006

In the twentieth century, most mass media were introduced to the domestic audience. How can consumer roles and consumer/producer relations in this traditional (offline) media sector be characterized? Although consumers were not totally excluded from the value creation process, the traditional media sector can be characterized by its one-way communication stream. The value chain is a suitable metaphor to describe the rather static structure of the mass media industry. An oligopoly of media companies' contract creators and producers selects, publishes and distributes media products to a mass audience. During the 1980s, influenced by the developments in information and communication technologies and the characteristics of these new media, the media landscape changed significantly. The computer and the internet entered the household. Increasingly, the audience used their internet connection to find and consume media content, and eventually participate in the value creation process. The data presented in this chapter show that the media landscape diversified and specialized. According to Castells (2000), decentralization, diversification and customization shaped the development of (digital) television. Disintermediation and fragmentation of the audience can be added to that list. And similar developments can be seen in all media sectors. Not in all domains were the developments as disruptive, but in all domains changes took place. The analysis presented in this chapter has shown a number of developments that affected both media companies and media consumers.

2.10.1 A changing environment for media companies

In the first place, many traditional media companies have witnessed a decrease in income from traditional revenue streams, for example the sales of CDs or newspapers. This decline is to some extent compensated by digital sales. In the music industry, the sale of digital music is increasing, while other sectors like the film industry and the

newspaper sector still lag behind. Secondly, the internet and digitization have enabled new business models. The internet provides unlimited shelf-space and various models for distributing and selling digital content, for example subscription services for streaming media. Thirdly, online, traditional media companies have more competitors. On the one hand, aided by digitization, other media companies can expand their business easily with other media products (for example making broadcasters competitors for newspaper companies). On the other hand, new startups have entered the media landscape. Technology companies, telephone providers and users were all enabled to offer media content. And while users and start-ups took advantage of online possibilities, traditional media companies primarily acted defensively. In time, the internet is becoming increasingly institutionalized by media corporations.

The roles of media companies changed. Online, gatekeeping primarily shifts to the end of the value chain. And while uncertainty was already one of the characteristics of the traditional mass media sector, the online domain has brought producers even more uncertainty. Online, the amount of media content available has multiplied – particularly when all user-created content is taken into account. Consumers have more choice than ever, which makes fragmentation and disintermediation a problem for media companies who rely on economies of scale and advertising income based on exclusive rights to show particular content.

2.10.2 Changing user roles and user/producer relations

The ways the media sector on the internet addresses its users, differs from the way analogue media did. Traditionally, a small concentration of media companies provided media products for the mass audience. Great emphasis was placed on hits, and media sectors were separate domains, just like production and consumption were separate activities. But since digitization, all content is transferred into one digital signal. Sound, writing, images, video – all can be accessed from the computer screen. But not only are different media converging. User and producer roles also started converging, just like professional and amateur content. Users are enabled to take on different roles in online services. Web 2.0 services have enlarged and speeded up this process by capitalizing on the collective intelligence of users. The boundaries between production and consumption are not that clear-cut anymore. These changed user roles are visible throughout the whole value chain.

The creation and production of cultural goods were originally in the hands of artists, media creators and media companies. But the internet has significantly lowered the threshold for users to create, produce and publish their own works. This chapter made

this insightful by providing many examples. Firstly, users have become important players by creating videos, photos, music, blogs, podcasts and even television programmes. They publish their own books and online magazines and even commercialize their products. This user-created content is increasingly integrated by business parties into their services. Secondly, users have taken existing content and used it for mash-ups and modifications, for example in the game domain. User-created content is increasingly institutionalized. This can be deduced from the prizes that are awarded to for example blogs and the examples of authors who seek active contact with their audiences to improve their product. User-created content is stimulated through the wisdom of crowds and collaborative projects like Wikipedia.

Also the distribution of content has changed significantly. Firstly, users have taken up active roles in distribution processes, as P2P file-sharing has shown. Piracy was a very important issue the past few years, and still is. But looking at sales figures, the statement that every illegal download is a loss in revenue can be doubted. For example in the television domain P2P technology has proven to be a solution for significantly increased server costs. Secondly, artists have more freedom to distribute their own content or engage in innovative distribution deals. Thereby, traditional gatekeepers are increasingly evaded. Users can promote themselves and find a public. Social networks are a great facilitator for this development. Also offline, media companies seek ways to keep attracting an audience, for example by improving the movie watching experience in theatres.

In the traditional media sector, producers were important gatekeepers in selecting content. On the internet, these gatekeepers are not as powerful anymore. The amount of content available online has increased exponentially. Gantz et al. (2007) state that in 2006 the amount of content created, stored and replicated on the internet was about three million times larger than the information in all the books ever written. By rating and tagging content, users make content more easily findable. By selecting most-viewed or high-rated content like news, music, videos, books and more, users are increasingly relying on their peers in the selection process. Part of this valuable data is provided by the users unconsciously, since online user activity and clicking behaviour is monitored by online services. Producers capitalize on this phenomenon by for example integrating collaborative filtering into their services.

As with the other steps in the value creation process, consumers have changed their consumption habits online. They are now used to having access to on-demand, fragmented, free and specific content. Rather than music albums they buy music tracks,

rather than buying a newspaper they read news messages derived from different sources, complemented with short video clips about news events and messages delivered through social networking sites. Consumers have created their own media environment. Furthermore, users have become much more used to customization and specialization. The internet enables users to explore millions of niches with highly specialized content (the long tail). RSS feeds are enabling users to customize new flows of content. And rather than relying on a specialized carrier per media sector, like a CD, a video or a television programme on a television screen, users can access all content from the computer screen, their tablet or their smartphone. This has significantly lowered the threshold for consumption.

This historical chapter has painted a picture of the traditional media domain and the changes it has undergone since the introduction of computers and the internet. Taking into account the exponential growth of new online services, the developments presented in this chapter can be called disruptive – not in the sense that the traditional media industries have disappeared, or that consumers have stopped existing. Although media companies face challenges and organizations are changing, they do adapt to changing circumstances. But the changes have been disruptive for user/producer relations. This chapter has made insightful that user roles are indeed changing. It presented a general development and contextualisation that needs to be studied in more detail. It gives rise to many interesting questions, such as: to what extent do media services actually allow their users to assume these new roles? And what are users actually doing in practice? These questions will be answered in more detail in the empirical part of this dissertation. But first, the next chapter will take a more theoretical approach to the subject matter. It will shed light on the way the role of media users is conceptualized in existing research perspectives.

3 Towards a conceptual framework

This chapter aims to provide a first exploration of the ways users, their activities and user/producer relations have been conceptualized in the academic literature. Changing user practices and shifting relationships between users and producers in the media sector can be understood in the context of literature that stems from a variety of academic backgrounds; communication and media studies, technology studies, economics and innovation studies all touch upon these subjects. The existence of this wide variety of approaches and conceptualizations might be explained by what Silverstone has called the 'double articulation' of media (Silverstone, 1994; Livingstone, 2007). Media are material objects (technologies or artefacts) and symbolic messages (text or content) at the same time. In communication and media studies, media messages and the audience are the central research subjects. Communication and media scholars focus on the way media messages influence the audience, or how people interpret media messages in different ways (e.g. Lasswell, 1927; Ang, 1985; 1991; Shannon & Weaver, 1963; McLuhan, 1964; Valkenburg, 2000; 2002). A second way to study media is by addressing them as technological artefacts or innovations. The way media products are designed and the meaning users assign to these technologies, their place in the household and the relationship users have with these technologies are studied in science and technology-oriented studies and innovation studies (e.g. Rosenberg, 1982; Bijker, 1995; 2010; Silverstone, 1995).

As Livingstone argues, the double articulation of media also makes the public of media doubly articulated (Livingstone, 2007). The public is (1) audience of media messages/content and advertisements and (2) consumer/end-user of technologies/media objects at the same time. In other words; audiences are not only the recipients and interpreters of media content, they also are the buyers and owners of media objects (such as televisions, computers or tablets). This chapter shows that media, and the role of the public, can also be articulated in a *third way*. Around the time the web 2.0 concept was popularized (O'Reilly, 2005), a paradigm shift in academia could be witnessed (Jenkins, 2006; Van Dijck, 2009). In addition to the conceptualization of media as objects or as the providers of messages, new media were conceptualized to provide *tools* for users to become active themselves. Since then, the concept of active or participating users gained ground – which can be seen as a third articulation of the public. Users were assigned multifarious roles, for example as creators of content or as agents in new and mixed models of labour (Van Dijck, 2009). See an overview of this 'triple' articulation of media users in Figure 18.

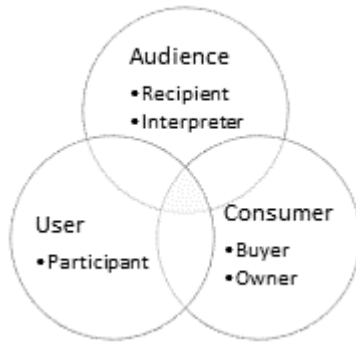


Figure 18 The triple articulation of media users

In this chapter a variety of theoretical perspectives on user roles and user/producer relations is presented. The purpose of this chapter is to show the ways in which scholars approach user roles and user/producer relations (thus answering subquestion one), and to provide a number of building blocks that will ground the empirical chapters of this dissertation. The text roughly follows the triple articulation of media users. It shows various conceptualizations of users in existing research strands – from users as recipients and audiences, to users as consumers of technology, to users as participants in the media value chain.

Throughout this chapter, it is argued that many theoretical approaches focus on one particular activity of media users, for example, as adopters of technology or interpreters of media messages, but they do not provide a solid background to study a wide range of possible user roles and practices. To sketch a theoretical or conceptual framework for studying multiple user roles thus presents a challenge. In the first section of this conceptual framework, the ‘users as audience approach’ is described. This part offers a historical and analytical overview of the way audiences can be analysed. It is important to have an understanding of the roots of audience research in order to place new user practices into perspective. Three specific ways to approach the audience are presented: (1) the audience as mass, (2) the audience as outcome and (3) the audience as agent (Webster, 1998). These three approaches are used to explore various types of audience research, portraying the audience in a more or less active way. Overall, it can be stated that the audience has increasingly been conceptualized as active. The second section is dedicated to users as consumers of technology. Similar to approaches in audience studies, the research strands discussed in this second section have assigned more active

roles to users since the 1980s. In addition to consumers, users are conceptualized as active in both the diffusion process and the design phase of technologies. Although these approaches thus include two particular user roles – as both consumers and designers of technologies – they still do not allow for an analysis of multifarious user roles. Therefore, the third section is dedicated to studies that try to shed light on user activities and treat media technologies as tools with which users can become active.

All these conceptualizations of users often (implicitly) say something about the relationship between users and producers. This relationship and the way it can be conceptualized will be the subject of the last part of this chapter. The concept of the business model will be used to explain the various levels on which users and producers can interact. This focus on the user/producer and active/passive dichotomy entails that some dimensions of user research are not taken into account here. For example, research on the identity of users or privacy issues is not included in this dissertation. Although these studies focus on the user and user activities, for the study of more descriptive user roles and user/producer relations, they are less relevant.

Given the multifaceted nature of the research strands presented in this chapter, no review of this sort can include a detailed overview of all dimensions and existing theoretical debates between and within research strands. Especially the vast amount of media and communication literature on the one side and more technology oriented approaches on the other requires a pragmatic approach. Within the research strands chosen, this chapter focuses on the ways user activities and user/producer relations are conceptualized. One particular research field that is not included in this conceptual chapter is, for example, motivational research. Although acknowledging the importance of this type of research (e.g. the Uses and Gratifications tradition) for the development of the idea of the active audience, this dissertation takes another direction. Instead of looking at why people engage in various types of activities (which would be a natural follow-up question to this dissertation), the aim of this research is first to establish an idea of what sort of activities users engage in. Thus, theoretical approaches like the uses and gratifications approach will not be used in this chapter.

3.1 Users as audience

"As we approach the next century, the idea of an audience is less settled than at any time in the past." (Webster, 1998)

One of the most dominant conceptualizations of media users is the concept of the audience. The audience has always been one of the central elements in media studies (Webster, 1998). Various scholars have presented an overview of the field of audience (or audience-related) studies (e.g. Jensen & Rosengren, 1990; Pietilä, 1994; Schröder, 1987; Webster, 1998). Unlike most scholars, who mainly focus on the theoretical or methodological differences between distinct approaches, Webster (1998) focuses on media *users* in his analysis. Therefore, in this chapter, his classification is taken as a starting point. Webster distinguishes three basic models for conceiving of the audience in media studies; (1) audience-as-mass, (2) audience-as-outcome, and (3) audience-as-agent (see Figure 19). This approach justifies bringing together prima facie different approaches and highlighting similarities based upon the way these scholars view the audience. This way of handling various theoretical conceptualizations fits well into the overall approach taken in this dissertation, since the study of multiple user roles also requires a combination of different theoretical approaches.

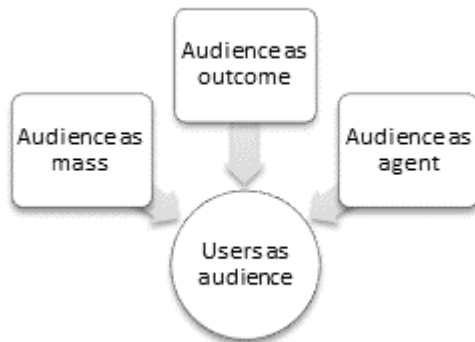


Figure 19 Users as audience model (based on Webster, 1998)

3.1.1 The audience as mass: what media do people consume?

The idea of the audience as mass is the first way in which researchers can study media audiences. As explained by Webster, the central question asked by scholars in this

model is: what media do people consume? In the approaches gathered under this common denominator, media users are viewed as *"a large collection of people scattered across time and space who act autonomously and have little or no immediate knowledge of one another."* (Webster, 1998, p.192). The people in this model only have in common their exposure to the media they consume. Researchers have conducted this kind of audience research since the rise of the mass media, and the research domain gained grounds in the 1930s. Due to the commercial exploitation of media, marketing strategies and the use of mass media for propaganda purposes, media producers, commercial parties and governments increasingly needed background information on their audiences. Through surveys or focus groups, audience members were questioned on their behaviour.

The audience-as-mass approach includes studies about audience ratings, but also studies about mass behaviour and media events. Webster underlines that studies in the audience-as-mass model do not contain moral judgements on the character of the audience or the power of the media, as for example in the political economy approach, or in the audience as outcome framework that is discussed in the next section. It is one of the few approaches that do not have a pre-conceptualized image of the audience. Studies in this approach more often provide statistics than theoretical conceptualizations and analyses. Nonetheless the outcomes of this research can be used to elicit a certain response from audience members - for example to persuade people to buy a product.

Although the phrasing 'audience as mass' might suggest otherwise, these studies do not necessarily see the audience as a homogeneous mass. The questions 'who is the public?' or 'what is the composition of the audience?' have been asked since the development of communication research as a distinct field within the social sciences (e.g. Bernays, 1928; Lazarsfeld, Berelson & Gaudet, 1948). Thus, instead of one cohesive and homogeneous public, the audience can be divided into segments - such as females and males, or audience members in various age groups who engage in different types of media use.

In the contemporary research landscape, several research institutions and media measurement organisations study media use on the basis of this approach. The most obvious example is audience measurement. Audience measurement is primarily used by media companies to establish advertising rates based on the popularity of certain (television) programs. One of the largest media measurement companies is Nielsen Media Research (www.nielsen.com). This company not only measures what people watch, listen to and read, but also how much advertisers spend on media, and

consumer confidence. In one of their more recent reports, Nielsen sheds light on the digital media habits and attitudes of Southeast Asian consumers (Nielsen, 2011). In recent years, also the traffic generated by websites is measured.

But also other research institutes analyse the use of (mass) media. Throughout the years, they have not only focused on what media people consume, but also what media activities they employ. In the United States, for example, research institute Pew is a 'fact tank' that provides statistical information about various topics - also topics related to new media (www.pewinternet.org). One of the projects of Pew is the Internet and American Life Project which provides information on the adoption of internet and mobile phones, and reports on specific uses of the internet by the public. In November 2011, for example, the Pew Internet and American Life Project reported that the share of American cell phone owners who downloaded an app to their phone nearly doubled the past two years (from 22 per cent in September 2009 to 38 per cent in August 2010) (Purcell, 2011). Another example: in the Netherlands, the Netherlands Institute for Social Research (SCP) provides detailed accounts of time spending every five years. In 2011, the SCP reported that Dutch people have almost 5.5 hours of spare time every day, and that 17 per cent of the Dutch youth play video games (Cloin, Kamphuis, Schols, Tiessen-Raaphorst & Verbeek, 2011).

Various types of audience as mass research have provided valuable background information in the previous historical chapter, for example to clarify the adoption of certain media technologies in society. As was explained before, this dissertation mainly focusses on the changes in user activities - on *what* internet users do instead of *why* the users act in a certain way. Especially when a development is rather new, establishing a detailed understanding of what is happening is of vital importance before other questions can be answered. The empirical studies conducted for this dissertation will follow similar methodologies as used in this type of research – user survey and focus groups. Especially in the second empirical study of this dissertation the focus will lie on a more quantitative account of internet use by different types of users. The main difference lies in the approach to the audience - in this dissertation, users are not simply perceived as consumers of media content.

3.1.2 The audience as outcome: what do media do to people?

In the audience-as-outcome model, scholars view the audience as people being acted upon by media. As Webster explains: "*Typically, it reflects a concern about the power of media to produce detrimental effects on individuals, and by implication on society as a whole.*" (Webster, 1998, p.193). Webster points to the fact that the audience-as-

outcome model covers a wide range of research strands such as media effects research and propaganda research. The main question that is addressed in these approaches is: what do media do to people? In these approaches, the primary assumption is that media have a causal influence on, for example, the subject the audience thinks or talks about (cognitive), forms an attitude towards (attitudinal) or the actions audience members engage in (behavioural) (Potter, 2011). According to Potter (2011, p. 903), *"a mass media effect is a change in an outcome within a person or social entity that is due to mass media influence following exposure to a mass media message or series of messages"*.

According to Potter (2011), the media effects research tradition gained grounds in the 1920s. Around World War II, public opinion became increasingly important. Through propaganda, governments tried to influence how the public thought about important issues (Bernays, 1928). Especially radio was deemed the most effective in *"accelerating social change"* (Miller, 1941, p.69). The informal fireside chats by Roosevelt, the speeches of Hitler in Germany; at first, especially radio was used to convey a (political) message and to get certain issues on the political agenda. But also the diffusion of television after World War II sparked debates on the effects of television viewing on, for example, leisure activities (Coffin, 1948). Television was perceived as a threat to reading. On the other hand, television was suggested to *"have a pronounced impact on set-owning families: television tends to pull the family together as a unit once more, preempts time and attention formerly given to hobbies, radio, movies and other leisure-time activities, and engenders an intensity of feeling which leads some to refer to their sets as "practically a member of the family"."* (Coffin, 1948, p. 550). Thus, television was also supposedly a unifier for families.

Looking at the character of the available media until the 1980s - print media, music records, film and broadcasting media (radio and television), the emphasis on the effects of media (content) on consumers is not really surprising. People who used these media could primarily take on consumption roles as watcher, reader and listener. This had echoes in existing and developing theoretical strands. In communication theories, the communication process was primarily presented as a linear, one-way process. The audiences or receivers in these models were not enabled to communicate back or influence the communication process (Shannon & Weaver, 1963). They were seen as

the consumers of the music album, the movie, or the radio and television show.³⁰ And with the introduction of each new medium (books, film, radio, television and internet alike), also concerns grew about the negative effects of that medium on the audience (Jensen & Rosengren, 1990). Especially the effects of media messages (for example advertising or violent content in films and video games) on youth are extensively researched (e.g. Valkenburg 2000; 2002).

In media effects research, in general, two specific paradigms are distinguished (Bineham, 1988; Jensen & Rosengren, 1990; Pietilä, 1994). The first presents a rather pessimistic view, in which users are labelled as passive and media messages are supposed to have a *direct effect* on the audience. Bineham (1988) gathers these approaches under the umbrella concept of the 'hypodermic needle model' (this is sometimes also called the magical bullet model). Bineham dates these approaches to the first half of the twentieth century. In these theories, media messages are supposed to have a very strong effect on the attitude and behaviour of people. Media messages are 'injected' into the minds of the audience, media consumers are characterized as malleable and impressionable, and are supposed to emotionally respond to these media messages (Greenberg & Salwen; 1996; Martinson, 2004; Wimmer & Dominic, 2005). To illustrate these claims, researchers gave examples of war propaganda (Lasswell, 1927 in: Greenberg & Salwen, 1996) or the radio broadcast of *The War of the Worlds*. The latter was a radio drama episode based on a novel by Wells, which was broadcast in America in 1938. Part of the radio show was presented as a set of news bulletins announcing the invasion of inhabitants of Mars on Earth, who destroyed parts of New York and New Jersey. Although research later on nuanced the impact of this broadcast, some media historians estimated that at least one million Americans believed the messages to be true and some of the audience members supposedly panicked (Gosling, 2009).

The direct effects model was soon nuanced; researchers showed that the direct effects approach did not reflect the actual practices of audience members. In the second half of the twentieth century, media and communication scholars questioned the direct effect approaches under the hypodermic needle model.³¹ The model was challenged under

30 In the 1980s, television viewers were sometimes even referred to as 'couch potatoes'- a term coined by Armstrong in 1980 (Moss, 2006). The term was a metaphor for passive, inactive audience members lying on a couch and simply consuming television content.

31 Bineham (1988) provides a well-documented overview of the development of mass communication history and the debate on the existence of the hypodermic model in the history of media research. He analyses the different conceptions of the hypodermic model, and argues that anti-hypodermic scholars often operate under the same premises that underlie the hypodermic model: that communication between mass media and the audience is one-directional and linear.

the influence of social psychology research and researchers like Katz and Lazarsfeld, who brought the effect of 'personal influence' to the table (Bineham, 1988; McCoy & Hargie, 2003). This second paradigm thus contains a more moderate view and is described as the 'limited effects' approach. The basic assumption of the limited-effects research strand is that audiences are susceptible to media messages that are consistent with and fit into already existing social surroundings and beliefs (Bineham, 1988; Klapper, 1960; Lazarsfeld et al., 1948; McMullen, 2003; Valkenburg, 2002). Social psychology teaches us that humans try to avoid conflicting ideas (cognitive dissonance). Furthermore, the effects of media are often non-direct. Media influence the audience through a two-step flow of communication (Croteau & Hoynes, 1997; Lazarsfeld et al., 1948). Media messages are picked up by opinion leaders and transmitted to the mainstream audience. In this approach, media are agenda-setters rather than direct influences on the minds of the audience. This approach highlights the gatekeeping role of the producers of media messages. Furthermore, the audience is portrayed as a collection of heterogeneous individuals who *"possessed different character traits, lived in different subcultures, adhered to different values, and would therefore, because of these mediating variables, react differently to messages."* (Bineham, 1988, p. 232).

The audience-as-outcome model is not only restricted to research on the effects of media messages on the audience. Also media technologies can have an influence on the way the audience behaves. According to Webster, research strands that focus on the properties of a medium or technology can also be placed in this model. Boczkowski and Lievrouw (2008) argue that the importance of technologies in media and communication studies has risen since the introduction of television. McLuhan coined the famous statement "the medium is the message" to imply that the media technologies shape the way people behave and see themselves and the world around them (McLuhan, 1964). McLuhan stresses the pervasiveness of media such as television, and portrays these media (and technologies in general) as extensions of people's senses. Media are, according to this approach, actively shaping human perception. As a side effect, other senses are amputated. McLuhan argues that people tend to overlook the amputations or negative side-effects of technologies and media. For example in the age of television, media images have become more important than written words. This might erode one's ability to read. Or it might diminish family ties and oral traditions in one's culture. This theory portrays the audience as individuals who are subject to the effects of media and technologies around them. In a sense, McLuhan can be positioned midway between researchers who study media messages or audiences and researchers who focus on media as technology.

As opposed to the studies discussed under the audience-as-mass model, approaches in the audience-as-outcome model view the audience in a pre-conceptualized way. The audience is the receiver of the media message, and interprets or acts in a certain way. The most fundamental criticism of the audience-as-outcome model is that research strands in this model put the audience in a rather passive role (Webster, 1998). Although the transition from direct effects to limited effects approaches involved a more diversified image of audience members (heterogeneous instead of homogeneous) and an increasingly more detailed view on the effects of media on the audience, still, scholars in this research paradigm look at the audience primarily as consumers of content. In this dissertation, the notion of heterogeneous media users is followed, but the classification of people solely in terms of an audience is abandoned. The focus within this dissertation lies on the multifarious activities media users can employ on top of consumption activities. One aspect that can be borrowed from this particular approach, as in the audience-as-mass approach, is the assertion that the audience is not a homogeneous group of people. Not only media can have different impacts on different groups of users, also users can take on different user roles. In the empirical part of this research, differences between user groups will be studied in more detail.

3.1.3 The audience as agent: how do people interpret media?

As Jansz (2010) points out, the media audience has (in a way) always been active. Not in the sense of engaging in multiple activities as proposed in this dissertation, but as audience members and consumers of content. In academia, this idea has gained ground since the 1980s. Gradually, the audience was assigned more power in dealing with media content/messages. Academics who adhere to this research paradigm look at the process of reception of a media message. Rather than passively consuming media messages, this approach stresses the active role of the audience in interpreting the message, and allows for a diversification of the audience into segments. Communication researchers in this research strand often consider the media message as text, and the audience members as readers. One important theoretical model within the audience-as-agent approach is the encoding/decoding model of communication, developed by Hall (1980).

In the encoding/decoding model of communication, the audience is assigned an equally important role in the production of meaning as the producers of content (Hall, 1980). The media message is conceptualized as text, and the audience as reader. In this model, a dominant, negotiated and oppositional reading of a media text is distinguished. Producers of media messages embed preferred readings in the media content they send (McQuail, 1987). The audience can read or decode a text (consume media content) in

the dominant or intended way. But the model also allows the users to take on a more ambiguous role in interpreting the message. They can, for example, attach a negotiated meaning to a message (mix the intended meaning with their own ideas) or even oppose it completely and interpret it in a way not intended by the sender. This approach allows researchers to differentiate between audience members, and not only on the basis of demographic characteristics such as gender or age. Researchers such as Morley (1980) and Ang (1985; 1991) also made clear that 'the audience' was not a homogeneous, impressionable mass but was made up of socially situated individuals with different characteristics and backgrounds who interpreted media content in various ways. The encoding/decoding model was primarily used to research the reception of television programmes. Television programmes and the reactions to these programmes were analysed to probe the ways in which audience members gave meaning to television texts (Ang, 1990). The research results were also used as a cultural critique; to counter the claims of the media-deterministic Americanization discourse in television studies (Ang, 1990). Ang was one of the first to explore actual audience practices in the consumption of the television soap Dallas.

Overall, the research into the reception of media programmes positioned the audience as more active and creative in one specific role: consumption. Although this particular aspect of consumption activity is hard to measure, this approach is valuable for it shows that consumption is not merely passive. It allows the positioning of consumption as an activity instead of an inactive pastime. But although actively interpreting the media message, this approach still does not allow audience members to directly interact with the producer, or take on other roles in the production process besides consuming. And as such, it is too limited to analyse multiple user roles. A second benefit of this research strand is that it enables a more diversified and heterogeneous look at the audience, which will be attempted in this study too.

3.1.4 Developments in audience studies

The research strands discussed above were all developed in a pre-internet and mass media age, and overall it can be said that they position the user (the audience) at the end of the value chain. Media messages are created, encoded, produced and distributed by media producers and decoded and interpreted by the audience. The conceptualization of the audience members as decoders of the media message, and thus designating the process of consumption as a place for cultural production, is a first step towards assigning more power to the users. Nonetheless, in the light of the characteristics of online media, these research strands cannot be used one-on-one to analyse the expansion of user roles that is the focus in this dissertation. Ever since the

advent of the internet, the distinction between the old (newspapers, film, radio, television) and the new media (computers and other communication technologies with an internet connection) spurred a debate on the sustainability of these existing research paradigms in communication and audience research. Instead of the one-to-many communication of the old mass media, the new media could be characterized by their inherently social characteristics, the network metaphor and many-to-many communication (Benkler, 2006; Lievrouw & Livingstone, 2006; Baym, 2006).

Webster (1998) argues that the combination of rapid technological changes that reshape the media landscape and the shifting intellectual paradigms within academia, justify a re-evaluation of the concept of the audience and the scope of audience studies. Hermes (2009) also proposed to move to a new way of conducting audience research. In this new research paradigm, which she dubs "Media Studies 2.0", there will be no distinction between users on the one hand and producers on the other. Also the idea that the main research subjects - media texts - have distinct boundaries is abandoned in this new research paradigm. According to Hermes, new media are much more a platform instead of a fixed source for sending uni-directional media messages and new media are much more co-creation based. To survive in the changed media landscape, researchers should (among other things) *"theorize audiencehood as a layered palette of activities, attachments and investments, widely differing in intensity and importance, especially paying attention to how audiencehood is caught up in everyday social relations."* (Hermes, 2009, p. 116). This dissertation is an attempt not only to theorize about the palette of user activities, but to show those activities based on a number of empirical studies. And in these studies, 'being the audience' is only one possible role the user can take on.

The nature of this dissertation is primarily empirical. Webster stresses that in this changing media landscape, a new form of empiricism is important: *"Studying the actual audience, and the actual institutions that serve it, can and should offer a check against unfettered theorizing. What is needed is a kind of enlightened empiricism—one that makes room for a number of methods, each compensating for the limitations of the other—one that compels analysts to go into the real world, recognizing that audiences are never completely knowable."* (Webster, 1998, p. 200). Thus, instead of relying on theoretical explanations of the activities of audience members, as is often the case when a new technology is adopted, researchers should look for various ways to shed light on the activities of the audience. In this dissertation, several empirical studies are conducted to explore user activities online.

According to Webster (1998), the passive-active dichotomy is hampering audience research. The discourse about audiences in old and new media is often characterized by the notion of passive or active consumption practices. The television audience is portrayed as a bunch of couch potatoes, passively consuming television content, while active media use presumes that users actively choose to engage in certain behavior. In reality, watching television might not be as passive (think about active interpretation, and active choice of channels) and active media use (for example surfing the internet) might not be as consciously active and self-aware as supposed. Therefore the polarity of the passive versus the active audience should be abandoned and instead the concepts of agency and structure can be used (Giddens, 1986; Webster, 1998). Agency can be explained as the power people have to change and adjust their behavior and media messages. Structure is the institutionalized surrounding in which people have to operate. Nonetheless, it should be taken into account, as explained in the introduction, that user agency can be considered an ambiguous concept (Van Dijck, 2009). It is often used to indicate that users are putting in a 'certain amount of creative effort' to create something 'outside of professional routines and efforts'. Since, in this dissertation, also activities are studied that do not require a lot of creative effort, the term agency will not be used. Instead focus will be placed on various types of activities.

3.2 Users as consumers and influencers of technological change

"The process of innovation tends to become a professionalized activity and workers and consumers tend to become passive beneficiaries or victims in relation to new technology rather than subjects taking an active part in the process of innovation." (Lundvall 1988, p.365)

As was already indicated in the introductory chapter to this dissertation, the societal discourse surrounding the introduction of new technologies is often technologically deterministic in nature. Similar to the audience-as-outcome model, the idea persists that technology impacts individuals and our society (in a good way or a negative way) and we can do nothing about it. The concept of technological determinism consists of two parts. The first part contains the idea that technology is invented and shaped outside of society, without interference of politics, economics and culture (Wyatt, 2008). Secondly, the idea persists that fundamental changes in society are primarily brought about by technology. Free will or user freedom is thought to be an illusion. Technological determinism can be used both positively and negatively (De Mul, Müller & Nusselder, 2001). The positivist view can be labelled techno-utopian; because of

technologies, society is changing for the better. The second, negative view is more techno-dystopian in nature; people are becoming dependent on technologies or are influenced by technology in a negative way. Both views are mono-causal in nature and leave no room for human interaction.

Technological determinism still persists in society in a multitude of forms today (Wyatt, 2008). Thinking back to the introduction of this dissertation, both utopian and dystopian views can be recognized in accounts of the impact of the internet on society and culture. And users play an inactive role in these visions. Also in the academic field analysing technology creation and adoption, the idea of participating users did not take off until the 1980s. Just as in research strands that portrayed users as inactive and impressionable audiences, in technology-oriented research strands users were traditionally often portrayed as simple consumers or end-users of technologies or innovations. As shown by Punie (2000; 2004), a great deal of social research on technologies used to ignore the role and contribution of users in ICT innovation processes. Also Lie and Sørensen state that *"there was little concern for, and empirical studies of, the process through which technology becomes part of human cultures"* (Lie & Sørensen, 1996, p.1). Often, technology was 'black boxed', meaning that social processes and users were excluded from the design process. Innovations were understood as conceived in the minds of inventors rather than as a social process of mutual shaping (Tuomi, 2002).

But in academia, just as in communication and media studies, the idea of consumers as a defenceless and compliant mass was largely abandoned in time. According to Oudshoorn and Pinch (2008), the growing recognition of users started with the work of Rosenberg (1982), who argued that innovations were not unchangeable, finished products that entered the market, but were very often adapted to the needs of users. Inspired by Rosenberg (and others), scholars began to realize that technologies could originate from diverse sources and even change as they become diffused throughout society. Thus, consumption can be much more than merely buying and 'consuming' goods. Consumption is also use, and users can be characterized as actively shaping technologies and introducing them into their households, giving them a place and meaning and reshaping the technology itself in the process. The 1980s thus seem to have been a turning point in the discourse about active users in technology studies just as they were in the field of audience research.

The field of research for the social study of science, technology, and their interactions with society is large and diverse (Sismondo, 2008). Research strands in this field of

research are gathered under the common denominator science and technology studies (STS) (Hackett, Amsterdamska, Lynch & Wajcman, 2008), but cover many subjects, for example, gender issues, networks of actors, politics and the shaping of technological artefacts. One of the research strands in this field is called Social Construction of Technology (SCOT). Generally, SCOT can be characterized as constructivist; the creation of technologies is often a group process whereby artefacts and meaning are created by various groups within society (Bijker 1995; 2010; Pinch & Bijker, 1987). Furthermore, technologies are not seen as neutral. They contain meaning, are designed in a certain way and intended to be used in a certain way. Politics and power relations thus often play an important role in these studies. In another approach, Script, researchers analyse the power struggle between producers and users of technology. Producers inscribe various dominant uses into technological artefacts, and try to persuade users to use the artefact the intended way (Oudshoorn & Pinch, 2007). Users have negotiating power in using the artefact (reading the script). Just as in active interpretation, users can subscribe to the scripted use (intended use), de-inscribe (which means using the artefact in a modified way) or read the script as an anti-programme (using the artefact in a totally different way and thus rejecting the script).

Similar to audience studies, approaches that fall under science and technology studies do not take a large variety of user roles into account. Therefore, they cannot be used one-on-one for the study conducted in this dissertation. Nonetheless, some of these approaches do provide a background to approach participative users. In this section of the dissertation, three specific 'media as technology' perspectives will be discussed; (1) the diffusion of innovations, (2) the social shaping of technology and (3) the domestication approach.³² In all three approaches, the origin and use of new technologies are studied (Lievrouw & Livingstone, 2006). Researchers in these fields address the evolution and extent of technological development and place technologies

32 One of the conceptual approaches within science and technology studies that might sound relevant for the study of user/producer relations is Actor Network Theory (ANT). ANT is not specifically a theory, but more a method of looking at technology and networks. The approach assigns equal importance to humans and non-humans (technologies for example) in networks, and is used to map relations around technological innovations (Latour, 1987). By applying ANT, academics such as Latour try to translate complicated situations surrounding innovations and make them understandable. Although the conceptualization of technological innovations as a network is interesting, the ANT approach is not included in this conceptual framework. In this study, technology is not seen as an equally important actor, but as an enabler or a tool with which the users and producers interact. Furthermore, in this dissertation, the roles of producers/users are not considered equal. Although online, the boundaries between users and producers fade, still these two roles can be identified from each other. Lastly, ANT methodologically provides few points of reference for this study.

in the context of a social and human backdrop. The three approaches are valuable in the context of this study, because they assign different roles to the users. In the diffusion of innovations approach, consumers play an active role in the adoption and diffusion phase of new technologies. In this approach, it is studied how ideas and practices are introduced and adopted into a social system (Lievrouw & Livingstone, 2006). In the social shaping of technologies approach, consumers are involved in a process of mutual shaping by using technologies. Researchers study the choices of designers, developers and users and the way these choices shape the development of a particular technology until the design process comes to a closure. The domestication approach takes mutual shaping one step further. In this approach, acceptance of and resistance to new technologies in the household is studied. Users have an active role in giving meaning to technologies and use technologies in ways not intended by designers. Especially this last approach will provide some ideas to study participation of users on various levels.

3.2.1 The consumers as adopters: the diffusion of innovations

The process of innovation (just like the communication process) was traditionally presented as a linear model (Lundvall, 1988; Tuomi, 2002). The innovation development process was conceptualized in the following order as: (1) recognizing a problem or need, (2) research (basic and applied), (3) development, (4) commercialization, (5) diffusion or adoption and (6) consequences (Rogers, 1995, p. 132, see Figure 20). After the (screened off) development phase, finished products were ‘thrown’ on the market (Osterwalder, 2004). This model of the innovation process is very similar to the traditional value chain of the cultural or creative industries as used in the previous chapter. It focuses primarily on development/production and diffusion while leaving the users of the innovation out of the process (Bar & Riis, 2000). Users are only assigned roles as adopters (consumers) and diffusers of innovations. An important example is the adoption and diffusion approach of Rogers.



Figure 20 The linear innovation development process (based on Rogers, 1995)

The adoption and diffusion of innovations can be seen as a social process in which subjectively perceived information about a new idea is communicated through groups of people (Rogers, 1995). Rogers stresses that the meaning of an innovation depends

largely on a process of social construction and he analyses why consumers decide to adopt certain products and technologies. According to Rogers (1995, p.15), diffusion depends on five product (or innovation) characteristics; (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability and (5) observability.³³

Rogers argues that when products or services have the right set of characteristics, consumers will adopt them. And once an innovation is adopted by a critical mass of consumers, it will spread through the social system as a whole. As already explained, the object of study in this dissertation is not the question *why* and because of *what* characteristics users adopt a certain service. But based on this process of adoption and his research into the various factors that play a part in it, Rogers comes to an interesting insight on various types of adopters. This insight stems from the diffusion curve and its implications for various types of adopters (see the light grey line in Figure 21). Especially the conceptualization of various adopter types can be useful to explore various types of online users and the way they engage in online activities.

The S-shaped curve illustrates the way an innovation is cumulatively diffused in a society through time. First, the adoption process goes rather slow, whereby only a small number of people adopt the innovation. Once a certain number of users are reached, the adoption process accelerates. The line of adoption shows a steeper curve. Finally, the adoption rate slows down again, when a product or service reaches saturation. The curve is not only useful for studying the acceptance of technologies in society, it also illustrates that not all people adopt a product at the same time. By looking at the speed by which people adopt a certain innovation, Rogers defines five adopter categories; (1) innovators, (2) early adopters, (3) early majority, (4) late majority and (5) laggards (see the thick black line in Figure 21). He furthermore adjudges certain characteristics or

³³ The first reason to adopt a certain product is the relative advantage, or the degree to which an innovation is perceived as better than the idea it supersedes. Examples of relative advantage are social prestige, convenience, satisfaction, or people gain an economic advantage by buying a product. Secondly, people can decide to adopt a product because of compatibility, meaning the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs for potential adopters. If the product fits into existing routines – it is more likely to be adopted. A third characteristic of adoption is complexity. Complexity is defined as the degree to which an innovation is perceived as difficult to understand and use. The more difficult a product or innovation is, the less likely is it to be adopted by a large user group. The fourth characteristic is trialability; the degree to which an innovation may be experimented with. The last characteristic is observability; the degree to which the results of an innovation are visible to others. Although the evidence Rogers has gathered throughout the years is largely depending on agricultural and medical studies, these characteristics can also apply to the adoption of communication technologies (artefacts and services).

common denominators to these different types of users (adopters). By doing so, Rogers acknowledges that users are not a single homogeneous group. Although this has already been acknowledged by researchers in audience studies, Rogers diversifies the image of the audience based on their attitude towards technological innovation. This might be particularly useful for the study of online users and the way they interact with online services, for people with more experience and a more positive attitude towards technology might also be more engaged in non-traditional usage.

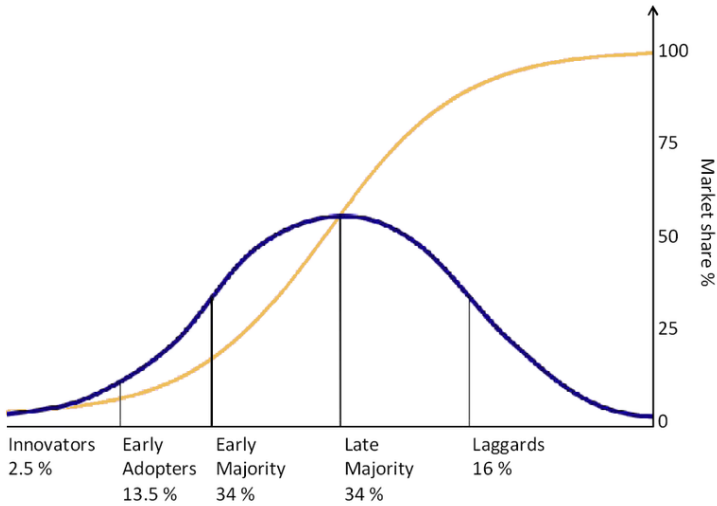


Figure 21 S-shaped curve and adopter types³⁴

The first users who are likely to adopt new innovations are called innovators. They often account for 2.5 per cent of all users of a certain technology. It is a small group of users, but they are very interested in new technologies and adopt them even before they have proven their value to a large group of people. Secondly, an innovation is adopted by early adopters. Rogers characterizes them as opinion leaders and this group contains 13.5 per cent of all users. The early adopters are not the first ones to adopt, but they are pretty fast and serve as examples for other people. In using the product or service and showing it to their family and peers, they might influence other people's adoption decisions. Thirdly, a large group of adopters (34 per cent) is called the early majority, followed by the late majority, consisting of 34 per cent of all users. Rogers characterizes

34 Source: Tungsten <http://en.wikipedia.org/wiki/File:Diffusionofideas.PNG> based on Rogers.

the latter group as sceptical. Just like the early majority, they wait until they have observed the technology and saw that it worked before they adopted it. But they are a bit more sceptical than the early majority. The fifth group, the group that adopts the technology the latest, are the laggards. Laggards are users who have not accepted an innovation until after the majority of users have done so; they only do so very late in the process of diffusion. They are characterised by Rogers as being traditional and account for 16 per cent of the total user population. Rogers does not deal with non-users in his model.

Thus, the diffusion of innovations approach assigns users an important role in the decision making process - they individually decide whether or not to adopt/purchase a particular technology. Also, users have a role in the diffusion phase. Innovators and early adopters, for example, serve as examples for the early and late majority. They see how new technologies are used in practice and get inspired (or not) to also adopt them. Thus, earlier adopters serve as opinion leaders, a concept also used in the two-step flow of communication approach (Lazarsfeld, 1948). The diffusion of innovations approach is valuable in acknowledging that various user types exist. In the study conducted in this dissertation, different adopter types and the way they engage in online activities are discussed in the analysis. Innovators and early adopters might be more accustomed to or interested in technology, which might lead to more active or creative use than people who are sceptical or who have limited access to the internet.

Nonetheless, for the analysis of various user activities in online services, this approach is less suitable. The consumer role in this approach ends after the product or technology is adopted. Furthermore, Rogers acknowledges that the diffusion approach has been criticized for displaying a pro-innovation bias³⁵; innovation is by default judged as positive and will, in course of time, be adopted by everyone (Rogers, 1976). The two other approaches discussed in this section also acknowledge that adoption and use is a social process. They start where the diffusion of innovation approach stops; when technology is adopted and integrated into everyday life. Neither the social construction of technology approach nor the domestication approach consider the technology finished when it reaches the consumers.

35 In later work, this has been nuanced. See, for example, Punie (2000).

3.2.2 The consumers as shapers: the social construction of technology

The social construction of technology approach (SCOT) was developed in the 1980s – the same time communication scholars started researching active interpretation of media messages by the audience. SCOT is an important area within STS research (Klein & Kleinman, 2002). The SCOT-approach was developed as an integrated social constructivist approach towards the study of science and technology (Pinch & Bijker, 1987). This means that technology is not invented by a single inventor and thrown on the market to be bought and used by the consumers. It is developed in a process of social construction, with various relevant social groups shaping the technology by interacting with it and each other. As opposed to innovation studies, in SCOT, technology is considered a construct and negotiable (Pinch & Bijker, 1987). Users have agency; they can reshape innovation in their particular practices of use. In the early days of SCOT, the primary units of analysis were everyday technological artefacts like bicycles, radios and light bulbs (Bijker, 1995; 2010). Historical studies showed that these artefacts were socially and politically constructed. According to Bijker (1995), an artefact is constructed through time by the social interactions between and within relevant social groups.

Thus, as opposed to the diffusion of innovation approach - which considers innovations finished when they enter the market - in SCOT the technology is conceived as being still open to adjustments. One of the key theoretical concepts used in SCOT to indicate this openness is the 'interpretative flexibility' of artefacts; they can be assigned different meanings, but also show flexibility in design during the introduction phase (Bijker, 1995). Producers do not put a final product on the market; new technologies are socially constructed, leaving the dividing line between users and producers permeable. In the SCOT approach, the innovation process is presented as a multi-directional model instead of a linear model (as was the case in many earlier innovation studies). The development of a new product or service always has possible variations during the design process. In the process of further development, one form becomes dominant. This enables researchers to analyse why some variations survive while others cease to exist.

During the innovation process, users – unified in relevant social groups – have an active role in defining the technology or artefact in a process of mutual shaping. Researchers in the SCOT approach thus do not address individuals as being decisive in defining technology. Social groups are institutions, organizations, and groups of individuals, both organized and unorganized. *"The key requirement is that all members of a certain social group share the same set of meanings, attached to a specific artefact."* (Pinch & Bijker,

1987, p.414). Thus, consumers or users of a certain technology count as one social group. But in the SCOT approach also other social groups are included in the analysis, like non-users or anti groups (e.g. Wyatt, 2003). All these social groups have a certain relationship with a particular artefact. The relevant social groups of users are, even more so than in the diffusion of innovations approach, defined according to certain characteristics. The more specific this description is, the better researchers are able to clarify the function of the particular artefact for that social group, and the problem or need that the artefact (needs to) solve. Between social groups, needs or requirements can be conflicting. This social process shapes not only the meaning people give to an artefact (for some social groups a bicycle primarily needs to be fast, for others it primarily needs to be safe) (Bijker, 1995), but also its design.

The process of openness of a product and the various ways in which the audience can 'read' its meaning is similar to the various ways in which the audience can read content, as described by Hall (1980). But, in the SCOT paradigm, the process of negotiability is limited. After the introduction period, a technology reaches "closure". In this process of synthesis, the artefact stabilizes and the relevant social groups see their problems or needs as solved (Pinch & Bijker, 1987). During this process, the meaning of an artefact stabilizes; one meaning becomes dominant across all relevant social groups. Another way to get closure is when a problem is redefined and the existing solution seems to solve the newly defined problem. Because the adoption of a new artefact is primarily seen as a social process, SCOT assigns equal importance to innovations that are successful as to innovations that are unsuccessful, thus countering the pro-innovation bias.

Pinch and Bijker also mention the wider context in which the process of shaping technologies takes place. In finalized form, the technology is adopted by an even larger group of users. They do not have as much agency in re-shaping or redefining the technology as the first relevant social adopters did. The SCOT approach has been criticized for assigning equal power to all social groups and for being socially deterministic (Klein & Kleinman, 2002). In reality, this might not be the case and particular social groups might be overlooked in the process of the definition of social groups. Because of unequal power balance, not all groups might be able to assert equal agency in the shaping process.

Both in the SCOT approach and in the diffusions of innovations approach, the users are conceived as social groups who have a particular role. In the diffusion of innovations approach, these groups are constructed on the basis of the way they deal with

technology and the speed with which they adopt an innovation. Users primarily play a role in the consumption phase of the product or service. In the SCOT approach, social groups already play a part at the design phase of a product, when a new product is developed and introduced in society and is going through a process of mutual shaping and, in the end, closure. Social groups are defined according to their specific use and relationship with an artefact. Although in this dissertation user groups will not be defined in the same terms as in the SCOT approach, another insight lies at the foundation of this study: the active role of the users in participating in a service and adding value.

In the SCOT approach, users certainly have more power to shape the outcome of a design process than in the diffusion of innovations approach. Users shape a technology or product by discussing it or using it, and in a process of mutual shaping, the product is modified by the designers. Although this process of mutual shaping is not a specific research subject of this dissertation, users are conceived here as being active in the use of online services. They use it in a specific way and have the freedom to take on multiple roles and add value themselves. On the basis of this user activity, the producers of the service might decide to adapt the service to a particular use. More generally, this dissertation will deal with various aspects of user/producer relations, instead of only focusing on the design phase.

One of the shortcomings of the SCOT approach, in the light of this dissertation, is that the impact of user participation is indirect, and lies more in the meanings that are constructed around an artefact of service. In this dissertation, users will have direct power by taking on many roles or activities themselves. Secondly, when studying online user roles and user/producer relations, the focus on closure within SCOT is problematic. One of the most important characteristics of online media is interactivity. And as Frissen and De Mul have established, because online users have the power to continuously interact with content, the medium frustrates the occurrence of closure (Frissen & De Mul, 2000). This dissertation will therefore take the continuous activities of users and changes in services into account.

An approach that goes one step further with respect to the power of users to change something in practice is the domestication approach. This approach will be discussed in the next paragraph.

3.2.3 Consumers as actively embedding technologies in their everyday life: the domestication approach

The domestication approach originally stems from communication studies, anthropology and consumption studies³⁶, and was inspired by the introduction of new ICTs in the domestic sphere from 1980 on. The approach is directed at the relations between technology, consumption and the domestic space. Instead of the primarily semiotic approaches at that point in time, domestication scholars propose to study the actual experiences of media users by conducting empirical studies (Haddon, 2005). Researchers in this tradition document and analyse the social and cultural dynamics of the adoption and use of media and information technologies, patterns of acceptance of and resistance to new technologies. They are concerned with the dynamic role that users play in defining their particular relationships to both old and new media technologies, and with the consequences of adoption and use (Silverstone, 1995).

One of the first seminal works on domestication was published by Silverstone and Hirsch in 1992. By looking closely at how users gave media technologies a place in their homes, they defined a way of thinking about the incorporation of technology into everyday life (Silverstone & Hirsch, 1992). They divided consumption into four different phases: (1) appropriation, (2) objectification, (3) incorporation, and (4) conversion³⁷, implying that users take up a number of different roles in the consumption process.

1. The concept of appropriation describes how people manage the introduction of communication technologies in their homes (Haddon, 2007). In this phase, users are portrayed as being consumers with certain needs, served by designers who construct artefacts and services with a certain idea about use and the user in mind. It is interesting to note that domestication in this stage does not directly involve users in the design process, as is the case in reality as described by, for example, the lead-user approach of Von Hippel, which will be discussed in the innovation literature section. In the appropriation phase, the users decide to obtain the product or service. It is the moment of buying. Based on the characteristics of certain products or services, users determine to

36 Consumption has been studied by many disciplines from a wide variety of perspectives, among other things sociology, anthropology, economy, psychology and history (see Miller, 1995). Because of the focus of this dissertation on media and technologies, domestication studies and several audience studies are discussed in this chapter.

37 It needs to be underlined that this division of steps has known variations (see for example Silverstone & Haddon, 1996; Haddon, 2007).

buy something. In that sense, domestication can be related to the adoption concept of Rogers (1995). But domestication takes consumption a step further.

2. Objectification, the second step of the domestication process, refers to the way users give the object a place in their home. It includes the display of an object in a particular social and cultural context. According to Silverstone and Hirsch, the use of a product may facilitate control over time or simply allow time to be better spent. It is not always necessary that users use technology the way it is intended. It is important to underline that in the domestication approach users are ascribed a lot of power in this process. And because of the double articulation of media, the user not only buys an object but also the messages of that medium, the content.
3. In the incorporation phase, the product (or service) is actually used. An important idea in domestication is, that technologies can be used by people in different ways. Although designers or producers might have an idea about the way technologies should be used, in practice users can assign a different use to the same technology and use an object in a way not intended by the producer.
4. In the last phase of consumption, the so-called conversion phase, the relation between the user of the artefact and the outside world is established. The use of a product or service can signal status or belonging to a particular group. This can be characterized as identification or distinction. For example a teenager can buy and use an iPod because everybody has one and he/she feels part of the peer group by owning one too. The same person can also buy a different brand of MP3 player, just because everybody already owns an iPod and he/she wants to be different and stand out from the peer group by owning a different one. By establishing a link between the conversion phase and the design phase, domestication scholars make consumption and production a circular and continuous process, thus abandoning the linear value chain.

The domestication approach provides a valuable analytical tool to clarify the process of consumption after a technology has become diffused in society and integrated into everyday life by the users (Hynes & Rommes, 2006). By arguing that production continues in consumption, domestication researchers analyse the complex relationship between technological and social change in a way that avoids the dangers of claiming technological or social determinism. Users do not play a passive role in domestication, they are actively involved in the consumption process and sometimes do not use the

technology as planned by the producers; for example in the case of the mobile phone (text messaging) and the internet (P2P file-sharing). This power of the user can be taken as a starting point in the study towards active users of online media. But still, just like all other approaches developed before the turn of the century, domestication does not seem suitable for analysing multifarious user roles in online media services. Domestication researchers take artefacts as a starting point, and primarily focus on the process of consumption. Nonetheless, domestication shows that consumption is not a passive activity either.

3.2.4 Towards exploring multifarious user roles

Although earlier theories about consumers of technologies had rather deterministic connotations, both SCOT and domestication studies show that consumers play an active part in shaping technologies. Both approaches stress the importance of users in the process of technology introduction and consumption. Users actively determine the dominant looks and use of new artefacts in society. Furthermore, users influence the development of technologies by using (domesticating) them.

One major shortcoming of these studies when applied to the research subject of this dissertation is, just as in the communication studies discussed in the first part of this chapter, that they do not enable the study of a wide range of possible user roles and practices in the production process (Boczkowski & Lievrouw, 2008). Users are still primarily consumers. They do not take on other active roles in the middle part of the production process such as production or distribution. This is understandable because the technological context today is drastically different from the time when these conceptual approaches were developed (Berker et al., 2006). Although the research strands were further developed to include online developments, the old paradigm of technologies as artefacts and the clear distinction that is made between users and producers still presents difficulties for the exploration of online user roles and user/producer relations. Other approaches might allow for a more open approach to user roles.

Although this dissertation has its roots in media and communication studies, the view on user roles and user/producer relations will be further developed to include insights from innovation studies and economics. Researchers in these research traditions have done much work on the use of the internet and the practical role of users in innovation processes (e.g. Lundvall, 1988; Bar & Riis, 2000; Tuomi, 2002; Malerba & Orsenigo, 2010). In these approaches, user/producer relations are assumed to foster innovation. Moreover, more recent work on user roles in online media services and interactivity are

discussed in the final part of this chapter, allowing for a more integrated view on active users in online media.

3.3 Users as participants

“Convergence (...) must be understood as both a top-down corporate-driven process and a bottom-up consumer-driven process. Media companies are learning how to accelerate the flow of media content across delivery channels to expand revenue opportunities, broaden markets and reinforce consumer loyalties and commitments. Users are learning how to master these different media technologies to bring the flow of media more fully under their control and to interact (and co-create) with other users.” (Jenkins & Deuze, 2008, p.6).

In general, the conception of users as actors at the end of the production process can be complemented with views that position users as participants in earlier stages of the value creation process. Researchers show increased attention for interactivity by assigning users roles as shapers of technology, innovators, producers or creators (e.g. Mackay, Carne, Beynon-Davies & Tudhope, 2000; Tuomi, 2002; Oudshoorn & Pinch, 2008; Von Hippel, 2005; Shao, 2008; Jenkins, 2006). Writers have underlined the importance of social surroundings, user communities and innovation in their studies (Von Hippel, 2005; Tuomi, 2002). And users are creators of content in the case of user-generated content (OECD, 2007). This paradigm shift is also visible in the adaptation of the prosumer concept of Toffler (1980), the lead user concept of Von Hippel (2005), the pro-am concept of Leadbeater and Miller (2004) and the networks of innovation approach of Tuomi (2002). Many of these concepts stem from a pre-internet age, but are increasingly applied to online surroundings. They will be discussed in the section below.

More recently, studies shed light on the multiple roles users can take on in the process of value creation. Researchers classify users of online media services into user types who are active to a greater or lesser extent (Shao, 2008; Schols, Duimel & De Haan, 2011). Furthermore, to better understand user/producer relations, it might be helpful to take a closer look at the various levels on which users and producers can interact. The business-modelling literature provides important and more concrete information on this issue, and provides a model for analysing the value created in a service.

3.3.1 Users as producers: lead users, pro-ams, prosumers and user-created content

In literature about the production activities of users, two distinct takes on users as producers can be detected. The first approach places users at the beginning of the production process and gives them a role in aiding professional producers to develop products or innovate. The lead-user approach of Von Hippel (2005) can be placed in this perspective. A second approach stresses the activities of users as a more bottom-up process or grassroots movement. In this approach, users are viewed as autonomous actors, for example in producing content. Furthermore, this section shows that content creation can be interpreted in various ways; from more professional, high standard and unique content, to more mixed or everyday content generated by regular users.

The lead users as guiding the design process

Von Hippel (2005) gives users a distinct role in the innovation process. By studying the history of a wide array of product introductions, he concludes that users not only have the agency to modify and improve products, but are often also key drivers behind innovation (Oudshoorn & Pinch, 2007). But, according to Von Hippel, not all users play an equally important role. To characterize the users who have invented or modified a product to solve their needs, Von Hippel introduces the concept of *lead users*. Lead users are so specialized that they have needs months or years before the majority of people experience them. Secondly, lead-users benefit significantly by obtaining a solution to those needs. Von Hippel does not primarily mean users at home who use the internet in their spare time; he provides examples of professionals who need certain equipment to fulfil their daytime jobs or amateurs who are serious about their hobbies. Von Hippel argues that lead-users can be of great value to companies that are in the phase of designing a new product.³⁸

In a sense, the lead user concept is equivalent to the innovators concept in the diffusion of innovations approach (Rogers, 1995), although lead users are more actively involved in shaping the innovation or product while innovators are only the first to adopt the innovations. Also, the lead user concept can be linked to the metaphor of the pro-am. As explained in the introductory chapter, pro-ams are amateur users who pursue amateur activities to professional standards (Leadbeater & Miller, 2004). In that respect, pro-ams might be potential lead users. But while lead-users are positioned by Von

³⁸ Lead-users are not the only users who are valuable for producers. Lundvall (1988) points out that when producers exclusively rely on lead-users, the innovation process tends to put other users in a more passive role. Interactions with regular or so-called lay-users can provide producers with more information, ideas and feedback. Furthermore, interaction can increase trust, the development of new products and the ability to customize (Malerba & Orsenigo, 2010).

Hippel as important actors who can aid developers in the production process, pro-ams are actually portrayed as users who compete with producers. In the media domain, one can think of users as journalists, film makers and musicians. They are not helping to improve or invent artefacts, but produce content or media messages themselves (e.g. Grinnell, 2009; Hermes & Janssen, 2006). The concept of Von Hippel strengthens the idea that different user types exist that play different roles, also in the design phase. In this dissertation, lead users or innovators might be among the large group of users, but, as the user characterization of Rogers suggests, will only be a minority of this group.

Thus, instead of specifically focusing on a small group of active users who aid designers in the design process or on groups of users who work together to create professional products or services, this dissertation focuses on everyday users of online media services. As extended consumers they take on all kinds of roles in the value creation process. One of those roles might be the creation of content. In addition to pro-ams that pursue their activities to high, almost professional standards, this dissertation also discusses everyday internet users. Because this dissertation focuses on everyday users and their activities in online media services, other approaches towards user practices might be more suitable.

Prosumers and user-created content

In addition to users as starting point in the design phase, the second approach to more concrete conceptualisations of users as active in the production process will now be discussed. This includes users who create content and take on roles of producers, everyday users, not only the pro-ams that were described earlier. In this section, the concepts of prosumers and produsers will be explained, followed by the concept of user-generated content. These approaches all take a more bottom-up perspective on user activities.

The origins of the active and creating consumer can be traced back to Toffler's work in 1980. In his book *The Third Wave*, he describes how, after the agricultural revolution and the industrial revolution, information and communication technologies brought a 'third wave of change' and fundamentally altered society. Toffler characterizes this post-industrial society as one of demassification, diversity, knowledge-based production and the acceleration of change. This new societal organization would have important consequences for consumers and consumer/producer relations. To describe this new type of consumer, Toffler coined the term prosumer. He used this concept, an amalgam of the words producer and consumer, to explain that in a third wave society, the

formerly distinct roles of producers and consumers were increasingly merging, and consumers produced their own products.

Although the concept of prosumer originally described users who were taking up roles in the production process, this concept was further developed and expanded over the years. In the early days of the internet, the concept was re-introduced. In 2000, internet pioneers wrote the *Cluetrain Manifesto*, a pamphlet consisting of a list of 95 theses building upon the original ideas of Toffler (Levine, Locke, Searls & Weinberger, 2000). According to the writers of the Manifesto, the internet radically transforms traditional consumer/producer relations and introduces a new era of consumer interaction. Their central idea is that markets are conversations, and the internet allows for far more conversations between users than the mass media traditionally did. The writers of the Cluetrain Manifesto primarily focus on employee/employer relationships. They advocate that companies should pay more attention to the ideas of their employees and admit that their (collective) intelligence is valuable. In later work on new media, the term prosumer is used more broadly to describe users who engage in producing activities, for example in user-generated content (e.g. Hermes & Janssen, 2006).

Another term similar to prosumer is 'produsage' or 'produser' - a term coined by Bruns (2008). Instead of focusing on a single consumer who starts to produce, Bruns integrates the idea of the community into his framework. With produsage, Bruns means 'user-led content creation' or user activity that builds upon collaborative engagement of communities in shared projects. Open Source projects like Linux or the online encyclopedia Wikipedia are examples of this produsage. But also online games offer the opportunity for users to engage collectively in content creation. According to Bruns, producers of games and social networks are increasingly relying on their users to create the content for their games. As an example, he refers to the SIMS, but also an online environment such as Habbo suits produsage. Instead of neatly organized product cycles, the production process is characterized by rapidly evolving revisions of existing content (Bruns, 2008). And the users active in produsage, consume the content at the same time as they are actively shaping the content themselves.

The production of content by users is also often referred to as user-generated content or user-created content. The OECD defines the characteristics of user-created content as (1) work that is published in some context, and publicly or partly accessible to a group of people, (2) that requires a creative effort to create or to put together from different works, and (3) is created outside of professional routines and practices (OECD, 2007). Although the OECD acknowledges that it is increasingly difficult to draw a distinct

boundary between non-professional and professional users (and content), the concept of user-created content is thus primarily meant to describe content that is produced by users themselves, without monetary incentives or professional interference. This definition leaves a lot of space for the interpretation of the nature of the content that is produced. It can refer to original works (e.g. a video, photograph, blog or website), but also to remixing existing content, writing comments or reviews and even changing a profile page on a social networking website.

Thus, the concepts of prosumers, produsage, and user-generated content, show us that the audience can become more than (active) consumers of content, or helpers in the innovation or design phase of a product. These conceptualizations are valuable for this dissertation, because they extend the idea of user roles by showing that consumers can also play a part in the production process. This has also been shown more empirically in the second chapter; the amount of content created by users has exponentially grown over the past years.

Participation inequality

But although communication technologies provide users with the opportunities to become active producers of content, online not every user automatically becomes a producer. This has been referred to as *participation inequality* (Nielsen, 2006). Participation inequality has nothing to do with the digital divide. It does not conceptualize the portion of the users who do not have internet access or lack the skills to become active. Nielsen uses the concept to illustrate that a large group of people who are connected, for example by signing in to an online network or service, do not engage in creating content. Nielsen has introduced the 90-9-1 rule of thumb (or 1% rule), also mentioned in the introduction of this dissertation, to show that online, the majority of users does not (want to) contribute. In an online community or service, 90 per cent of users will only consume. They will not contribute, but simply consume the content that is produced by others. A minority of nine per cent of users will participate sometimes, and one per cent of the users will be responsible for creating most content. Participation in online services is thus highly unequal. Research results in the empirical part of this dissertation will explore to what extent users are indeed producers online.

Although the concepts of lead-users or pro-ams or prosumers are valuable for enhancing the idea that people can take on production roles besides being consumers, online users might be enabled to take on other roles as well. In the next section, a number of approaches are discussed that offer a more diverse picture of user roles.

3.3.2 Multiple user roles

Over the past few years, the body of research about multiple user roles has grown. Especially since new media technologies have provided interactive possibilities to users on many different levels, researchers try to make sense of these developments. Mostly, user typologies or classifications are developed to be able to answer additional research questions, for example, about the motivations for creating or consuming user-generated content (Shao, 2008), to develop educational materials (Van den Beemt, 2010), to assess the cultural participation of young internet users (Schols et al., 2011), or to analyse various ways in which teenagers are creative online (Jansz, Slot & Tol, 2011).

In an attempt to understand the appeal of user-generated content, Shao (2008), for example, identifies three ways in which users deal with these kinds of content: by consuming it, by participating in the production of it and by producing it. These categories in fact serve as a user classification system. Consumption is used to define the people who only watch, view, read or listen, while participating refers to a whole range of activities. But it does not refer to the actual production of content. And finally, production encompasses users who engage in both the creation and publication of content. Shao uses this framework to develop a classification of different motivations for various types of activities. While people consume content for information and entertainment needs, they participate for social interaction and community development and produce for self-expression and self-actualization (Shao, 2008). Although this dissertation does not take motivational aspects into account, the user classification of Shao can be taken as a starting point to develop the idea of multiple user roles in online media services.

The classification of Shao can be criticized for leaving the user activities relatively open. The participation category can actually include many very different activities, requiring various levels of effort. But user classifications have also been made for other types of internet use. Especially the youth is the research subject when online user activities are under analysis. Taking into account internet activities of the youth as a whole, Van den Beemt (2010) defines four types of young internet users; traditionalists who primarily consume media content, gamers who primarily play games in online surroundings, networkers who are active on social networking sites and producers who develop creative media content. Although all young internet users in his research spend a lot of time online, they differ in the extent to which they spend their time on certain activities. By using this characterization, Van den Beemt sketches an image of the generation of digital natives (Prensky, 2001). He uses his typologies, or personae, to come to a

number of recommendations about deploying digital learning materials in education. But in doing so, Van den Beemt implies that all digital natives are active in online services, whereas some of them do not participate.

Brandtzaeg (2010) does take non-users as a category in his typology. By meta-analysing literature, he creates a media-user typology of six user types based on variety and frequency of use and content preferences. This typology is more specific than the other typologies presented above. Users are (1) non-users, (2) sporadics, (3) lurkers, (4) entertainment users/socializers, (5) debaters/instrumental users, or (6) advanced users - with the latter category the smallest. Working within the field of Human Computer Interaction (HCI), Brandtzaeg stresses the importance of knowing the users, measuring media behaviour and improving the user experience. Although relevant when developing a certain type of software, there are disadvantages to constructing typologies of users. Although many researchers attempt to place real life and complex situations into simple models so as to be able to understand reality better, typologies are often too rigid. Especially in the online domain, media services are very diverse and users can take on many different user roles, depending on the type of service that is offered. Whereas one particular user will be a non-user or lurker in one media service, he or she will be an active debater or socializer in another. In this dissertation, the idea of user typologies will be abandoned. Instead, the focus will lie on more flexible activity categories.

Various researchers have made classifications in which users are not directly linked to one particular group. Schols et al. (2011), for example, use three groups of activities: content, contact and creation. These three groups to a certain extent match the traditionalists, networkers and producers of Van den Beemt (2010); they are not specifically constructed to indicate a certain ideal type of user, but different types of - more or less active - use. Users who participate in creation activities are, according to Schols et al., the most active online, users who mostly use the internet to consume content are the least active. Ito et al. (2010) label these activities *hanging out* (hanging out in virtual environments and consuming), *messing around* (exploring all kinds of media content and communicating without preconceived plan) and *geeking out* (participating and creating media content).

Activity categories

In this dissertation, given the premise that users are supposedly enabled to take on multiple roles in various services, a more open conceptualization of user roles is in order. For this purpose, Slot and Frissen (2007) developed a classification of user roles in

online services based on an analysis of a large number of web services. Their research showed that online activities can be grouped according to six main user roles/activities and multiple sub roles within these activities. The main roles are: (1) consuming, (2) creating, (3) contributing, (4) sharing/publishing, (5) facilitating and (6) communicating - they will be briefly explained below. These categories will serve as structuring concepts for activities, and to guide the exploration.

1. **Consuming** content is a rather traditional user role. It is used to describe user activities aimed at acquiring and using content. Consuming primarily is an individual user role and comprises various sub-roles. Users can view (video/pictures), listen (to music), read (text) or play (games). They can download (films or music), buy products (like books and films), search for content to consume, obtain services (music services for example) and information or subscribe to a newsletter.
2. A user role that requires more effort, in which users have the freedom to make their own content, is **creating**. Creating can mean either creating something from scratch or customizing. Creating is for example making photos, creating video or writing a weblog. Customization is the possibility of personalizing the looks of the service or parts of the service according to some pre-defined options. Customization often requires less creative effort than creating something from scratch. As a third option in this category, users can produce content. Users produce when they make content available for others – for example by uploading content. This is not necessarily content they have created themselves. They can also make content available made by others, or remix content and place it online.
3. Users can **contribute** to a service by adding information, vote/decide or object to content or ideas of others,
4. Users can **share/publish** by uploading content/information or send content/links/files directly to other users.
5. **Facilitating** is making it easier for other users to use the service. Facilitating can for example consist of recommending certain content/ information/ files to one another, creating a stream of content in one specific subject or tag/geotag content.

6. **Communicating** is also a traditional audience role, but in online services, communication happens online. Services might enable users to place comments, chat, send messages to other users or debate on a forum.

Compared to the research strands discussed in the first part of this chapter, the above-sketched approaches bring something new to the table. They indicate that users can take on other roles besides consumption; they also produce, communicate and participate. It is of added value to classify users into broad categories and use these categories to clarify behaviour, analyse motivations or present recommendations. But for the study of user roles as such, as in this dissertation is done, these approaches are too general or too rigid. In the classification of Slot and Frissen, a number of broad categories of user roles are defined. But they are supplemented by a detailed overview of sub-roles within each category. These sub-roles can be classified as being more or less active. Furthermore, users can engage in numerous activities in different services. They do not have to be confined to one box or ideal type or typology based on the most important activity they engage in. Using an extended framework of possible user roles will do better justice to the complexity and richness of user practices.

3.4 Various levels of user/producer relations

In the above sections, the conceptualizations of users in various research strands were discussed. The focus within these discussions was on the way users were portrayed. Especially in more recent studies, the convergence between user and producer roles is being analysed. In the discussion so far, each theory and conceptualization has primarily focused on one specific user role and one set of user/producer relations. They have focused on user and producer *practices*. The last approaches in the section above dealt with multiple user roles. All of these approaches do provide a number of building blocks to study user roles. Especially in the empirical section focusing on user roles (for example in the survey), these approaches will be used. But they are less adequate for the study of user/producer relations on multiple levels and provide only one piece of the puzzle. To analyse the more complex relationship between users and producers, this dissertation will benefit from yet another approach, a more business-like and economic one.

A concept that describes a new media environment in which consumers and producers develop a symbiotic relationship is *convergence* or *participatory culture* (Jenkins, 2006; Schäfer, 2008). Instead of only focusing on technological convergence, Jenkins takes a broad definition of convergence as a technological, cultural, economic and political

development. In this convergence culture, the public is developing a highly personalized information infrastructure and participates in production at the same time. Convergence culture is characterized by both top-down and bottom-up processes (Jenkins, 2006; Jenkins & Deuze, 2008). On the one hand, producers are increasingly finding their way in the information environment, harnessing their power by making use of new web 2.0 possibilities. On the other hand, also the audience has greater power to engage in activities. Thus, paradoxically, both seem to be losing and gaining power at the same time (Jenkins & Deuze, 2008). An important addition to this idea is that both groups are interlinked on various levels.

This complex interplay between users and producers can have multiple implications, for example, on an economic level when the economy changes (e.g. Benkler, 2006; Anderson, 2006; 2009), on a social political level when new digital divides and power structures emerge, when privacy is compromised or on a legal level when copyright laws are changed. It is beyond the scope of this dissertation to take all these contextual factors into account. Instead, a more pragmatic view on changing user/producer relations is taken. The focus is put on user and producer roles and the possible relationships they might have with each other. Users for example have a relationship with producers on a financial level – they provide producers with an income one way or another. And producers technically design their services to allow users to take on active roles (or not). To enable the study of these different levels of user/producer interaction, the concept of the business model is used. Although business modelling does not stem from the tradition of media and communication research, and is often used in a practical way to consult organizations, it is a valuable tool for it brings something new to the table; a structure with which user/producer relations can be analysed.

A business model is an abstract model of the process from creation to consumption. The main goal of business modelling is to provide an instrument to product developers and entrepreneurs to assess the viability of new services (Ballon, Kern, Poel, Tee & De Munck, 2005). Business models are known in many different shapes and sizes. These models vary from totally centralized models to models that rely on complete decentralization. Since the adoption of computers and the internet, also e-commerce business models have been developed. An example is the business model of Amazon, which is described as the aggregation model (Potter, 2004). In this model, Amazon functions as an intermediary between consumers and providers. The aggregation business model reproduces a rather closed system. Its interactions rely entirely on the intermediary, who acts as the central connection point for transactions. The consumer has no other role in this business model than being consumer. The agora business

model (for example applicable to e-Bay) is much more open (Potter, 2004). It is characterized by the fact that there is no central production or distribution facility. Through an intermediary platform, many products are exchanged between providers and consumers. These providers deliver their product directly to the consumer without a centrally located distributor. The intermediary serves only as a platform for communication. Thus, this model shows the disintermediation process as explained in the previous chapter.

In general, online business models offer many opportunities for media services to engage with other parties (like consumers). In this dissertation, business model levels are used as a general heuristic tool to analyse the different levels on which users and producers may interact. On the basis of Osterwalder (2004) and Ballon et al. (2005), the general business model identifies four different levels; (1) the functional or technical architecture of a service, (2) the value network of a service, (3) the financial model and (4) the value proposition (see Figure 22). In general, these levels are used to map the different parts of a company, but in this dissertation they will serve as the four levels on which users and producers interact. They will provide the framework within which online media services will be explored in the fourth chapter, and a general structure for discussing user/producer relations in the other empirical chapters of this dissertation. Below, the levels will be briefly explained.

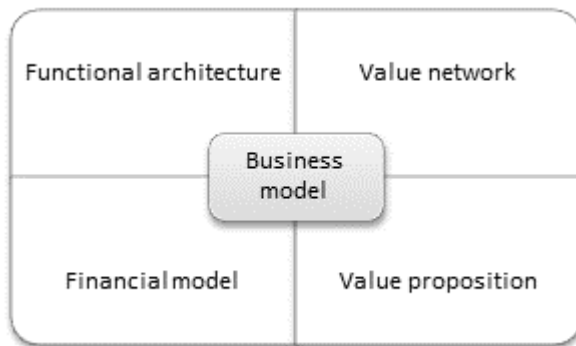


Figure 22 Business model levels³⁹

3.4.1 The functional architecture; the openness of online media services

³⁹ Based on Osterwalder, 2004; Ballon et al., 2005.

First, the functional architecture level shows the various (technical) components of a service. This business model level determines for example whether the product/service is centrally produced, whether it has a closed or open character, and who has control over content. According to Tuomi (2002), material resources that are available for the users become key resources in innovation processes. Whether a service is open to change by users will determine to a large extent the way users and producers are enabled to interact. Since the internet (technology) is seen as a tool, and user and producer roles as activities, it is important to evaluate to what extent this tool can be used by users (and producers alike) to structure or enable their activities. It needs to be underlined that this dissertation does not intent to analyse every technological component in detail. It will remain on a more general level, highlighting those technological components that are important enablers or constraints of user and producer activities.

The functional architecture level of the business model framework can be operationalized as follows:

1. As mentioned in the introduction and second chapter, web 2.0 services use the web as a platform. Unlike analogue services or downloadable software, the strength of web services is that they are available everywhere at any time. This will enable users to have direct access to the service and their content. When exploring the technological potential of online media services, the first variable will be whether the service provides downloadable software or is web-based.
2. Secondly, the openness of the service will be taken into account. The second chapter of this dissertation showed that some services still have limitations when it comes to access, for example by checking for IP numbers. But services also ask their users to log in by providing personal information. In an age of data collection, this is understandable, but it might heighten the threshold for users to start using a service. The second analytical component will be the accessibility of online media services, which can be non-exclusive, partly exclusive or exclusive, in the sense that users need to match certain criteria to be able to access them.
3. Another level of functional architecture is the way services supply content to their users. Digitization enables services to supply all types of content. In this section of the business model framework, it is asked whether services use streaming content, whether they offer a P2P mode of distribution, whether

they are interconnected with other services or store their content on a central server.

4. Technical openness is the last exploratory variable for the functional architecture in this dissertation. Web 2.0 services can use the wisdom of the crowd to improve their service. In the introduction to this dissertation, one example of building upon user intelligence was by providing open source software projects. By giving the users the source code of a service, producers truly open up their 'black box' of technology so users can play with the technological components and maybe even improve the service. Another way for producers to open up their service, to a lesser extent, is by providing the application programming interface, the API of a service or a widget. With an API, a little piece of software, users are enabled to build their own services and integrate (for example) certain aspects of the other service into theirs. And also a widget is a building block with information of one particular service that can be embedded into another one. Both APIs and widgets enable users to make connections between services.

3.4.2 The value network; mapping user and producer roles

Secondly, in the value network domain, the interactions between actors are mapped. Because the approaches in this chapter show that the traditional linear value chain where the consumer is only present at the end is outdated, and the network metaphor is important in current discourse about the information society (see the introduction to this dissertation) the term value network will be used. Different actors in the value network have various resources and capabilities that interact and work together to design/use the functional architecture. The value network clarifies which actors have contributed to the service and in what way. When the focus lies on business models as a representation of the operations of a firm, all actors are integrated into the value network; not only the producer of a product, but also manufacturers, distributors and retailers. In this dissertation, particular emphasis will be put on the different roles users can fulfil in the value network of online media services, and subsequently on the various roles that producers fulfil. The previous chapter, but also the conceptual approaches discussed in this chapter, show that in traditional offline media, users are primarily active at the end of the value creation process. They serve as consumers of media products and media content. But in recent years, the conceptualization of the user has diversified. This chapter shows the development towards a more varied idea of user roles. For the representation of user roles in this business model framework, the six main roles and underlying sub-roles will be used that are developed by Slot and Frissen

(2007); (1) consuming, (2) creating, (3) contributing, (4) sharing/publishing, (5) facilitating and (6) communicating. In addition to the roles users can take on in online media services, also producers have roles or activities they fulfil. These roles are partly deduced from the traditional value chain as presented in the second chapter, and supplemented with additional roles users are enabled to take on because of the two-way communication possibilities of the internet. The roles are: (1) creating, (2) publishing, (3) facilitating, (4) consulting, (5) promoting, (6) rating and (7) selling.

3.4.3 The financial model; how services make money

Thirdly, the financial model represents the financial arrangements between different actors in the value network. It shows how monetary value is captured (Ballon et al., 2005). Particularly financial arrangements within the service are included that map the economic relationship between users and producers. As the introduction to this dissertation showed, the discussion surrounding online media services has partly been about the fact that internet users are not willing to pay for online content. Instead of buying a music album in a store, they download it through file-sharing services. Instead of paying for a newspaper subscription, they find links to news messages on Google News. Media producers struggle with this new economic relationship (or the absence of an economic relationship). Online advertisements do not cover all of their expenses. This has been called the 'digital paradox'; in digital form, consumption is easier than ever, but for producers to make money with this content is much more difficult (Rutten & Driessen, 2005). Media producers have to find new revenue models.

In this respect, Anderson points to a new economy online, an economy of free (Anderson, 2008). He divides this economy into a taxonomy of six revenue models: (1) freemium, (2) advertising, (3) cross-subsidies, (4) zero marginal costs, (5) labour exchange, and (6) gift economy. In all of these models, service providers give (part) of their service or content away for free. Part of the taxonomy of Anderson will be used to explore revenue models, supplemented by more traditional forms of revenue in the media sector, such as selling a product or service or subscriptions. The revenue models examined in this dissertation are: (1) advertisements, (2) sell products/services, (3) premium services (freemium in the taxonomy of Anderson), (4) subscriptions, (5) donations and (6) pay-per-use models. The latter one has, for example, been discussed in chapter two.

Also, since users are enabled to produce content themselves, the financial structure will be used to analyse whether users are rewarded or compensated for their activities, for example by sharing in advertising revenue.

3.4.4 The value proposition; value for the users

The last level in the business model is the value proposition. This domain conceptualizes the consumption of the product/service and the value that is offered to the users (Ballon et al., 2005). Since consumption is one of the activities that is added to the value network domain, it will not be part of the value proposition. In this dissertation, the value proposition can be operationalized in various ways. Overall, the value proposition will shed light on the main service characteristics. It can encompass the way the service is used (for entertainment or more functional purposes), whether the service comprises networking aspects and the sort of content that is presented to the users. Because the first two empirical studies in this dissertation are quantitative in nature, it is hard to measure this level adequately. In the case study of Habbo, where also qualitative methods are used, the value proposition will be further explored.

Although it seems an unexpected turn compared to the approaches discussed so far, business model levels will prove an interesting framework and provide a reasonably concrete structure to map various aspects of user/producer relations. It needs to be underlined that no new business models will be developed in this dissertation. The business model levels will be taken into account as the four levels on which user/producer relations can take shape. Since these levels are identified for businesses to take into account when they develop their service, these levels will also include the way businesses deal with their customers. Considering the fact that this dissertation focuses on online media services, all services will strive towards a certain relationship with their users. Throughout the empirical chapters, the business model levels will return as structuring principle, and they will be operationalized to match the three specific studies.

3.5 Conclusion: building a bridge between different approaches?

As stated in the introductory chapter to this dissertation, the introduction of computers and the internet has spurred a debate on the impact of these technologies on society. The exploration in this dissertation serves to build a more detailed understanding of user roles and to place these observations within the context of online media services and user/producer relations. This conceptual chapter has shown that the subject of this dissertation cannot be embedded into one single theoretical framework stemming from one school of thought. Researching new user roles and user/producer relations is still in a pioneering phase. Following the triple articulation of media, this chapter presented a wide variety of conceptual approaches to user roles/practices and user/producer relations. Besides providing a background for the empirical studies undertaken in this

dissertation, this chapter also provides an answer to the second sub-question; in what way are the roles of media users and consumer/producer relations conceptualized in existing research perspectives?

In general it can be stated that until the 1980s, the conceptualization of media users was limited. Approaches in both audience studies and technology studies placed users in a rather passive role. The users were the audience for media messages or end-users or consumers of technological artefacts. They were thought to hold a position at the end of the value chain, unable to take on other roles besides consuming media content or media technologies. This chapter confirms that traditional views like the hypodermic-needle theory or technological determinism do not contribute to understanding active user practices and interactive user/producer relations. To a great extent, these theories concentrate on the effects of media on audiences and technology on society without paying attention to social context, the power of users or the heterogeneity of the public.

From the 1980s on, interestingly around the time that computers (enabling participation) and the internet (enabling interaction) were gaining ground in the domestic sphere, several approaches try to analyse the more complex and interesting relation people have with media. People are assumed to interpret messages, communicate about them, assign technologies a place in their household or aid in the design process. Conceptual approaches focusing on the users as active interpreters of media messages and as users and co-designers of technologies like the SCOT approach and the domestication approach, find more balance in juxtaposing users and producers than deterministic theories have done. Users in audience studies after the 1980s are active in the sense that they use media as a resource. The audience has the power to select media messages. Furthermore, people actively use information and interpret messages in various ways – not always as intended by producers. And in response to technological determinism, constructivist researchers explored the ways consumers deal with technological artefacts. They define consumption as active use of technologies. As active consumers, users continuously shape technologies by assigning them a place in their homes, using the technology in different ways and establishing a relationship through these technologies with the outside world. User practices can always be a reason for producers to reshape their technologies. In that respect, the dividing line between users and producers is never totally fixed, and production is a continuous process that is directly linked to consumption. These approaches place user activities and media technologies in a much broader spectrum of societal factors.

Researchers contested the idea of the audience as a homogeneous and impressionable mass. These research strands provide valuable building blocks to explore user roles in media and user/producer relations in more depth. The main shortcoming of these research strands when applied to the study of multiple user roles is that users are pre-conceptualized as consumers. Although they shape the use and meaning of technologies, they do not engage in the actual production process of artefacts and services.

Before providing a final conclusion to this chapter, it must be stated that dealing with a variety of multi-disciplinary research strands and theories poses challenges to creating a coherent conceptual framework. Often, theories are fundamentally non-compatible, which presents difficulties when different concepts are incorporated into the same framework. Furthermore, most research strands start from a pre-conceptualized perspective on users. Users are the audience (reception studies), they define design wishes (lead users) or they are producers of content (pro-ams or prosumers), innovators (group innovation) or actively shaping technologies by using them (domestication approach). This pre-conceptualized notion of users both has advantages and disadvantages. On the one hand it allows researchers to study these specific user roles and the impact these roles have on design, decision or production processes in depth. Specific user roles serve as demarcating concepts and can be embedded within existing (pre-internet) research strands. On the other hand, these conceptualizations place users at the beginning (lead users, prosumers) or end (reception studies, domestication) of the production process. They do not allow for a broad exploration and integrated conceptualization of all roles users are enabled to take on online. It seems that the research strands all present only one part of the puzzle whereas the full spectrum of user roles needs to be studied. But due to fundamental differences between these theories, they are often not connectable. In recent years, some researchers have developed a broader perspective on user roles. But these conceptualisations are still limited, or users are classified according to certain ideal types or typologies, without room for them to fulfil various roles in different services.⁴⁰

This dissertation takes a pragmatic and empirical approach, and has an explorative perspective on user roles and user/producer relations. Due to the newness of the online

⁴⁰ During the writing of this dissertation, many new articles and books were published touching upon the research subject. This dissertation has therefore been written in the knowledge that not all new publications could be taken into account.

developments, the presented research strands will be used to guide and embed this exploration. The focus lies on the activities of users online and user/producer relations. And it builds upon a number of premises that have been illustrated in this chapter; among other things the idea that the audience is a heterogeneous group, the existence of a variety of online user roles, the conceptualisation of these user roles as activities within the context of online media services, the acknowledgement that not every user will become a producer and the concept of the business model as a structuring principle for analysing different levels of user/producer relations. Furthermore, similar to studies that were classified under the “audience-as-mass” approach, this dissertation will explore the type of activities that users engage in online.

3.5.1 A variety of user roles in online services

In this dissertation, active media consumption will be taken as one possible role that users can take on. But the assumption of this dissertation is that users are enabled to take on a number of user roles. Rather than focusing on the meaning users assign to technologies or media messages, this dissertation explores the ways users shape their own use and user/producer relations through technologies.

They are offered ways of usage by producers, but have the freedom to use technologies in unintended ways. In that respect, internet functions as a tool for users to engage with producers in different ways. In the domestication approach, researchers focused on the use and meaning of technologies as material and symbolic artefacts, but this dissertation will take this one step further and focus on the use of technologies and media as tools for broader participation. Therefore, the third articulation of technologies was introduced at the beginning of this chapter. In this third possible articulation of media and technologies, media are seen as tools for participation.

Thus, the primary assumption in this dissertation is that new media technologies, such as the internet, serve as tools that enable users to take on multiple roles and engage in various activities. Media do not serve directly as extensions of people’s senses, as proposed by McLuhan, but are integrated into people’s everyday lives as tools and means of entertainment, information and expression. This is opposed to the way analogue media such as television, radio and newspapers address their audience. In this dissertation, instead of “what media do to people” it is asked “what people do with media”.

This way of analysing media offers a number of interesting insights for this dissertation. Users can be more than (active) audience or consumers of technology – as was

highlighted in the previous approaches. Users can also be producers of content, or participants, or still consumers. Rather than focusing on specialized pro-ams or lead users, this dissertation will focus on everyday internet users and see which roles they take on in the value network of online media services. Instead of offering a classification of users based on their activities, in this dissertation main user roles are sketched, consisting of multiple sub-roles which require more or less effort. The abilities of users to take on various roles while engaging in a number of different services is taken as a starting point.

One insight for this dissertation is viewing participation and user and producer roles as a social practice. Both users and producers are enabled by technologies to take on a number of roles and perform a number of actions and activities. In this dissertation, actions and activities are pragmatically used to understand user and producer roles and the relationship between these two. Thus, active is always intended to describe activities. It is never used to classify users that do not engage in these activities as passive.

Furthermore, throughout practically all theoretical approaches discussed in this chapter, researchers underline that the audience is not a homogeneous group of people. The user group is made up of many individuals, all with their own social and technological background and characteristics. This influences the way people interpret media messages or how they deal with new technologies. This dissertation consists of a number of empirical studies intended to explore the actual audience or users of online media services. Differences between audience members will be studied. The assumption is that users not only interpret media messages differently, they might also employ other activities, activities that fit their lifestyle, age and gender. Especially the Net Generation, young people who grew up with technologies, might be more advanced in their use of online media than older people who had to learn much later in their lives. Since using media technology as a tool instead of as an object or provider of messages requires other skills, also different adopter types (as defined by Rogers) might engage in different activities.

3.5.2 Users and producers

The idea of internet as a tool and users as engaging in various activities does not discard the role of the producer as insignificant. Although in a convergence culture the boundaries between stereotypical producer or user roles are fading, producers can still play an important and distinct role. Media producers provide their services with a number of functionalities, with which they enable their users to engage in activities.

They can enable or constrain their users by the way they technologically design their websites (for example, more open or closed). And they probably also have a certain intended use in mind. But not all functionalities offered need to be used by the users. They might decide not to use all functionalities, or will use a certain service in an unintended way. One example might be Youtube, which is presented as a video portal, but is primarily used by young people to listen to music. Another important insight stemming from this chapter is that not all users need to take on all available roles. User roles are extended compared to previous possibilities with analogue media. But taking up various user roles might depend on user characteristics.

This chapter also shows that relations between users and producers are not only defined on the level of activities, but in all facets of the production process. Although user roles and producer roles are the main focus areas for this dissertation, also other business model levels are used to explore various levels of user and producer interaction. Business modelling research often typically frames user/producer interaction within the boundaries of the firm. In this dissertation a highly simplified and heuristic perspective on business modelling is used to view user/producer relations on different levels, and from a user perspective. Thus, the relations between users and producers are not only conceptualized at the level of activities (roles). The business model framework is used as a structuring principle to address user/producer relations. In the following chapters, four levels of user/producer relations will be addressed: (1) the functional or technical architecture of a service, (2) the value network of a service (with respect to user and producer roles), (3) the financial model and (4) the value proposition.

The next chapters will present three distinct empirical studies exploring user activities and user/producer relations. In these chapters, the insights from both the historical and this theoretical chapter will be included. Chapter four will show the results of a quantitative content analysis of various online media services. It will answer the question what roles users are enabled to take on in online media services. Chapter five will explore the question what roles users actually take on in online media services, by giving the results of an online user survey. In chapter six, a more in-depth case study will be presented of user roles and user/producer relations in Habbo. This final chapter will be both quantitative and qualitative in nature. Every chapter builds upon the premises presented in this conceptual chapter, but all require a different operationalization and approach. In the methodological sections preceding every chapter this will be further elaborated.

PART

2

Three empirical studies exploring user roles
and user/producer relations in online media
services

4 Analyzing possible user roles in media services

Since 2004, the term web 2.0 is used to characterize new online services (O'Reilly, 2005). Rather than just sending content to 'passive' consumers, these services put users at the centre of the value-creation process and allow for a two-way conversation (Slot & Frissen, 2007; O'Reilly & Battelle, 2009). But how do these services allow users to engage in multiple activities? And how are user/producer relations shaped in these services? This chapter will provide an empirical insight into the ways these new online media services enable users to take on various roles as discussed in the previous chapter. It will answer sub-question three of this dissertation; how do current online media services incorporate user roles and user/producer relations?

This first empirical study provides an analysis and classification of user/producer relations. It will take the four business model levels as a structuring principle. A snapshot is given of 125 international online media services that were analysed in 2008. Furthermore this chapter presents an analysis of the way these online services differ from traditional media services that position the user as a consumer at the end of the value-chain..

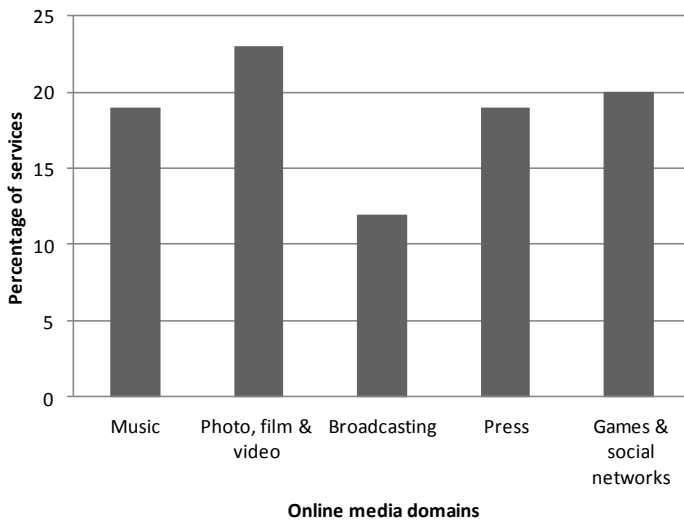


Figure 23 Online media entertainment domain

As explained in the previous chapters, the research domain in this dissertation comprises (1) music, (2) photo, film and video, (3) broadcasting, (4) press and (5) games and social networks. The case sample used for this analysis consists of 125 online media services, which can all be classed into one of these subsectors.⁴¹ In Figure 23, these subdomains are represented. The media services in the case sample are grouped according to the most important content characteristics. Often, services combine more than one domain, for example when a music website is also a social network, and a news website also contains some form of video or photographs. The most important domain is chosen and recorded. Figure 23 shows the percentage of cases that represent that specific domain.

The services were selected in 2008.⁴² The services are analysed on different levels, based on a quantitative content analysis. In this chapter, first the methodology of this framework is explained. Next, the general characteristics of the services in the case sample are discussed. Furthermore, attention is paid to user/producer relations on the four levels defined by the framework.

4.1 Methodology: quantitative content analysis of online services

As explained in the previous chapters, the now widely-used web 2.0 concept implies that users take on many active roles in the value creation process of online services. They supposedly have become the key drivers of innovation. But to what extent do online media services enable users to take on active roles? And subsequently, what roles do producers take on in these services? In order to establish an overview of user roles, producer roles and user/producer relations in media services, and to be able to compare these services on a number of pre-defined variables, a quantitative content analysis is used as a structured way to conduct research.

Content analysis is often used by communication and media scholars who view media as symbolic message – the first articulation of media. Unlike in observations, surveys and interviews (in which people are the main research objects), in content analysis media products are defined as research object. Pleijter (2006) distinguishes two forms of content analysis; qualitative and quantitative. In qualitative content analysis, media

41 See for an overview and description of all services Appendix 1. The services in the case sample represent a broad selection of media services that were available online in 2008. Although this selection presents a diverse view on the scope of media services, it is not possible to determine whether the case sample is fully representative for the entire media domain.

42 In 2010, 90 per cent of these services were still up and running.

material is studied to answer questions about influence, role or function of mass media (Pleijter, 2006; Wester, 2004). Researchers interpret media messages and the way they, for example, influence political processes. In quantitative content analysis, researchers are systematically gathering quantitative data on media messages to analyse the nature of these media products in more detail.

Quantitative content analysis enables a systematic analysis and comparison of pre-defined aspects of media products. Particularly in the online media domain, before researching meaning and actual use, this overview provides valuable insights. Instead of media products like television programmes, newspaper articles or films, in this chapter online media services are analysed. Most of them have content integrated into their websites, but also offer a number of other options. The structure of the content analysis is primarily based on the four business model levels proposed in chapter two: general service characteristics (including value proposition), user and producer roles (value network), financial structure and technical architecture. These four levels are used as exploratory, heuristic concepts representing possible aspects of user/producer relations.

4.1.1 Development of a quantitative content analysis tool

To enable a structured and systematic analysis of online media services, an online tool was used to record the information. This tool was developed in two phases. In March 2007, 139 online media services were analysed to provide the first insights into the important variables for user and producer roles and user/producer relations. The services were selected from an online list of 952 web 2.0 services (<http://www.statsaholic.com/sethgodin>) that were ranked according to generated traffic.⁴³ The first 150 services on the list were selected for a preliminary analysis. Upon closer examination, eleven services were not taken into account. Either they did not exist anymore, or the users of these services were businesses, not everyday users. The final case sample consisted of 139 web 2.0 services. These services were analysed on multiple variables: user roles, producer roles, general characteristics, financial construction and technical architecture. The analysis provided the basic variables of the online analysis tool, including an overview of possible user and producer roles. At the end of 2007, the tool was further developed and tested for inter-coder reliability in a TNO project on social computing (Huijboom, Van den Broek, Frissen & Kool, 2010). The

43 The Seth Godin watch list provided an interesting overview of much used online services that could be classified under the web 2.0 concept. Traffic figures on this list were determined by using Alexa data. Although Alexa is sometimes being criticized for being unreliable (e.g. Scocco, 2008), the Seth Godin list did provide a general overview of popular web services.

results of this project were used to make final refinements and adjustments to the online tool.

After the final adjustments to the content analysis tool, it was used for the first empirical study in this dissertation, a quantitative content analysis of 125 online media services.⁴⁴ The services were selected on the basis of two criteria: (1) they had to operate in one of the five media domains and (2) users needed to be able to take on one or multiple roles. Because of language limitations, only English, Dutch, German, French or Spanish services were analysed. The services were selected by browsing and inspecting websites that listed popular online media services. This can be labeled as a form of purposive sampling. Unique cases were selected for their informative power. This means that the results of this empirical study will give an indication for online web 2.0 services in the media domain, but cannot be used to generalize about the entire research field of online services. But that is not the intention of this research. Below, an overview and explanation is given of the variables that are incorporated into the four levels of the analysis. In this chapter, a general description is given of the variables that were included in the analysis. For a detailed code book of the tool, see Appendix 2.

4.1.2 Level one: service characteristics

Variables in the service characteristics domain highlight the character and nature of online media services. Variables included in this domain enable the differentiation between services in the overall analysis. This domain furthermore sheds light on the value proposition of a service. In the service characteristics domain, basic features of the services like name, web address, a short description, initiators, start year, tag words (assigned by the researcher), state of development (e.g. beta version or fully operational), the country the service is initiated in and the main language of the service are recorded. Furthermore, the way the service is embedded is analysed; services can be independent (stand-alone services) or part of a service portfolio.

Secondly, a selection of variables disclose information on the value proposition of the service. The value proposition sheds light on the nature of use – professional, recreational or functional. It analyses to what extent the service targets certain specific user groups, and the main selling point of the service; selling, information, knowledge or entertainment. Furthermore, the service domain is determined (in which media domain the service can be placed), the nature of the content that is made available and the

44 It needs to be noted that the services analysed in this chapter have only been coded by the author.

social networking aspects of the service. Finally, this selection analyses the direction of interaction; are users or producers the initiative takers in these services?

4.1.3 Level two: value network

The second level of analysis takes the value network of the online media services into account. Given the fact that this dissertation focuses on user/producer interaction, both user roles and producer roles in media services are mapped.

User roles

On the basis of observational data acquired in the pre-course of this study, six categories of user roles are defined: consuming, creating, contributing, sharing/publishing, facilitating and communicating. Subsequently, these categories are divided into more diversified sub-roles (see Table 2 for an overview). Complementing the pre-defined user roles, a last variable is indicated as *other*, enabling also other user roles to be included in the monitor, if necessary.

Consuming content is a rather traditional user role. It is used to describe user activities to acquire and use content. Consuming primarily is an individual user role and comprises a number of sub-roles. Users can view (video/pictures), listen (to music), read (text) or play (games). They can download (films or music), buy products (like books and films), search for content to consume, obtain services (music services for example) and information and subscribe to a newsletter.

A user role that requires more activity, in which users have the freedom to make their own content, is the main role **creating**. Creating can be both creating something from scratch and customizing. Creating is for example uploading photos, creating video or writing a weblog. Customization is the possibility of personalizing the looks of the service or parts of the service according to some pre-defined options. Often user-created content needs to be uploaded to the service, while customization is often web based. As a third option in this category, users can produce content. Users produce when they make content available for others – for example by uploading content. This is not necessarily content they have created themselves. They can also make content available made by others, or remix content and place it online.

Main user role	Sub-role	
Consume	View	
	Listen	
	Read	
	Simulate/ play	
	Download	
	Buy products	
	Search	
	Obtain services	
	Obtain information	
	Subscribe to newsletter	
	Create	Customize
		Create content
	Contribute	Produce
Add information		
Vote/ decide		
Share/ publish	Object	
	Upload	
Facilitate	Send	
	Recommend	
	Create channel	
	Tag content	
	Geotag content	
	Filter content	
	Subscribe to stream/ RSS	
	Remove content	
Communicate	Send message to other user	
	Place comment	
	Chat	
	Debate/ discuss (forum)	
	Rate/ evaluate/ review	
Other	

Table 2 User roles

Users can **contribute** to a service by adding information, voting/deciding or objecting to content or ideas of others, and they can **share/publish** by uploading content/information or send content/links/files directly to other users. **Facilitating** is making it easier for other users or the user him or herself to use the service. Facilitating can for example consist of recommending certain content/ information/ files to one another, creating a stream of content in one specific subject or tagging/geotagging content. **Communicating** is also a traditional role of the audience, but in online services, communication happens online. Services might enable users to place comments, chat, and send messages to other users or debate on a forum. The category *other* is implemented so as to include roles which are not on the pre-defined list.

Producer roles

Above, the various user roles and the way in which these roles are defined are explained. The same procedure was followed for producer roles. Seven main producer roles are defined: creating, publishing, facilitating, consulting, promoting, rating and selling. These main roles are divided into sub-roles (see Table 3 for a complete overview).

Main producer role	Sub-role
Creating	Create content
Publishing	Supply/ publish content Inform users
Facilitating	Intermediary role Moderate Create channels Tag content Filter content Facilitate discussion Facilitate networks Organize
Consulting users	Collect information Decision process Ask for opinions Debate and discussion
Promoting	Promote product Promote idea
Rating	Rate
Selling	Sell product Sell service
Other

Table 3 Producer roles

Producers can **create** (editorial) content themselves and post it online, or they can **publish** content of all sorts. They can **facilitate** the use of their service by playing an intermediary role by connecting users to other users or organizations or vice versa, moderating additions made by users, creating channels to group and arrange content on the website, tag or filter content or facilitate discussions or networks. Furthermore, producers can **consult** users in decision processes, ask for information or opinions. They can **promote** a product or a service, **rate** content or **sell** products or services. Just like in the user role section, the category *other* is implemented so as to include roles which are not on the pre-defined list.

4.1.4 Level three: financial structure

In the financial structure domain, the economic relationship between users and producers is analysed. The variables on this level explore the financial income of producers and the way users pay for (or get paid by) the service (see Table 4 for a complete overview). This level analyses several variables: whether the service contains advertisements, if it is free for users or if they need to pay for the service (per use, via a subscription fee, through premium services or by donating money). Furthermore, it is recorded whether the producers sell products or whether they are sponsored or financed by third parties. Lastly, it is examined if users get a financial reward for contributing – for example by uploading videos or writing reviews.

Financial structure
Advertisements
Free service for users
Pay per use
Subscription fee
Premium services
Donation
Sale of products
Service is sponsored/ financed by third party
Users get financial reward for contributing
Other

Table 4 Financial variables

4.1.5 Level four: functional architecture

The functional architecture level analyses the basic technical characteristics of a service. It helps exploring to what extent online media services have an open or closed character (see Table 5 for a complete overview). Openness could enable more user roles, while closed services might hinder user roles by not allowing them any power in the interaction with producers and the product. The more closed a service is, the higher the threshold for users to participate. It is assessed whether users need to download software to their computers to be able to use the service or whether the service is web based and usable without downloading software. Furthermore, it is recorded if the service makes its source code available (open source software), or applies a peer-to-peer architecture enabling users to function as distributors themselves or if producers rely on a central server for content. Furthermore it is analysed whether the service streams audio/video, and if connections exist between other services (for example by making a direct link with other services on their website). It is assessed whether services make available their API or offer web widgets. Lastly, the accessibility of the service is analysed – whether it is exclusive or not, if it is possible to log-in to the service with an

account from another service and who has control over the content (users or producers). The variables used in this level of analysis all imply more or less openness, but do not function as a scale.

Technical architecture
Downloadable software
Web based service
Source code available
Streaming of audio/ video
Interconnectedness
Peer-to-peer architecture
Central server for content
Availability of API
Web Widget
Accessibility
Log-in with account from other service
Control over content

Table 5 Technical Architecture

4.1.6 Analysis

The information gathered in the online tool is analysed in SPSS. Given the exploratory nature of this dissertation, this analysis is primarily based on descriptive statistics. First a quantitative overview is created of possible user/producer roles and relations in existing online media services. Furthermore, the various media domains are compared to see whether specific media domains offer users and producers different roles. Given the fact that media domain and sub-roles are both nominal variables, all associations are measured using a chi-square-based measure of nominal association; Cramer's V. Cramer's V tests the strength of an association. Significant levels are taken into account to measure the significance of the outcome.

Furthermore, throughout this chapter the results will be presented in charts and tag clouds. A tag cloud is a collection of words (in this case for example a collection of user roles). It visualizes the importance of words in a particular text. The bigger the word, the more often this word is present. In the case of the analysis of user roles the tag clouds visualize the importance of particular user roles in the online services in the analysis. The larger the user role, the more often this user role is enabled by the services. All tag clouds in this chapter are generated with the help of tag cloud generator wordle.net.

4.2 Characteristics and the value proposition of online media services

Media services can be stand-alone services, part of a larger service portfolio (for example when the service is owned by a larger corporation offering multiple services accessible from one portal), or use an already existing application like Google Maps. The largest part (88 per cent) of the case sample consists of stand-alone services. Only 11 per cent is part of a service portfolio and one per cent of providers of the media services use an already existing service. Although a widely heard claim is that web 2.0 services are often in beta stage, meaning they are continuously under development (O'Reilly, 2005), almost 80 per cent of the services are fully operational, 15 per cent are in beta testing phase and the rest are in a concept phase. Services do not target the so-called lead users, but most services (98 per cent) are directed at regular (non-professional) users and do not target specific user groups like men or women, certain age categories or users who have certain professions or live in specific countries.

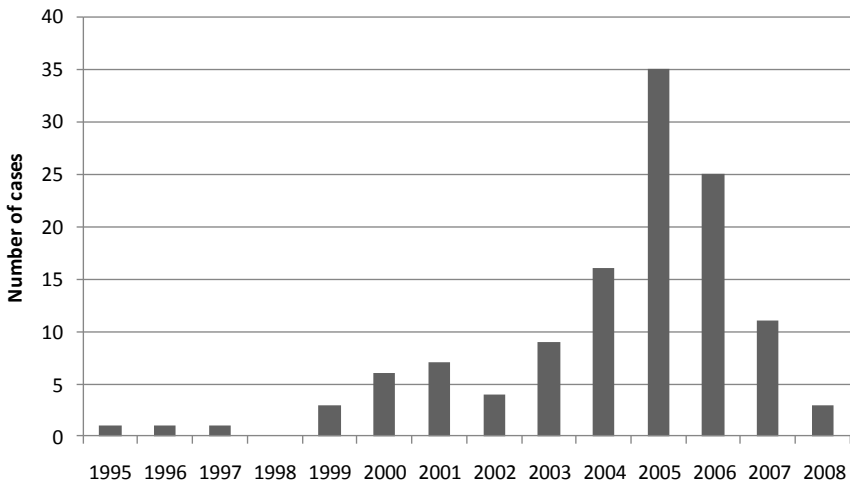


Figure 24 Start year media services in case sample (N=125)

Most services in the case sample started after 2004, the year O'Reilly popularized the term web 2.0 (see Figure 24). The oldest services in the case sample are music services like Allmusic (www.allmusic.com) (1995) and Artist Direct (www.artistdirect.com) (1997). From 1999 on, news and broadcasting services and games and social networks are represented in the case sample; for example Live Journal (www.livejournal.com)

(1999), a community website on which users can keep a diary, blog, or journal. In 2000, Habbo started (www.habbo.com), followed by other social networking sites, such as Friendster in 2002 (www.friendster.com), MySpace in 2003 (www.myspace.com) and Facebook in 2004 (www.facebook.com).

4.3 Possible user roles in online media services

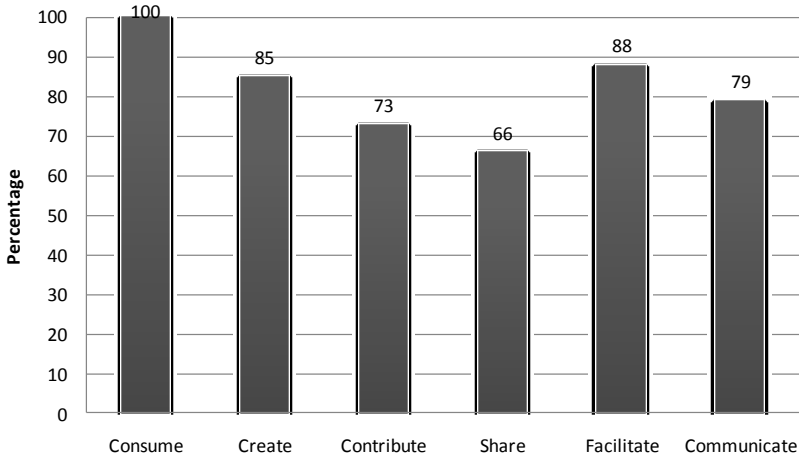


Figure 25 Possible user roles in online media services (N=125)

All online media services in the case sample were analysed for possible user roles. As described in the previous chapter, beforehand, six main user roles were defined: consuming, creating, contributing, sharing, facilitating and communicating. As Figure 25 shows, consumption is still the most often offered user role; all services allow their users to consume content in one way or another. Communication roles are offered in 79 per cent of all cases. In 85 per cent of the cases, users are enabled to create something, in 73 per cent of the cases users can contribute to the service and 88 per cent of the cases allow users to facilitate in one way or another. In 66 per cent of the cases, users are allowed or enabled to share. Below, these user roles are analysed in more detail. To give a more specific insight into these sub user roles, a tag cloud principle is applied to each specific main role. The number of times a specific sub-role is possible in the case sample is reflected in the size of the word in the cloud. Thus, the larger the word, the more important the sub-role in the case sample.

4.3.1 Consuming: traditional consumption roles omnipresent

As illustrated by Figure 25, 100 per cent of the online media services enable some form of consumption. As was explained in chapter two, consumption is traditionally the most important user role in the media domain. Looking at the cases more closely, the role of the consumer can be divided into various sub-roles. The importance of these sub-roles is illustrated in Figure 26 and Figure 27.

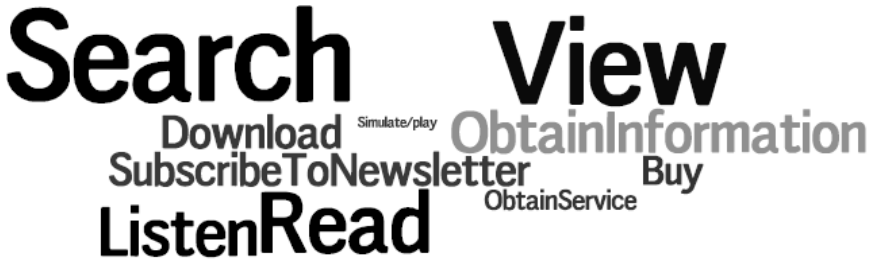


Figure 26 Tag cloud consumption

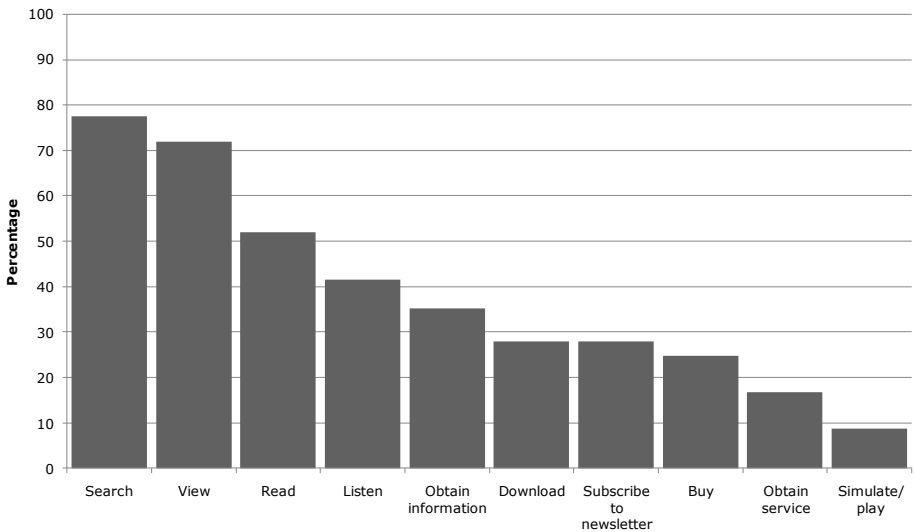


Figure 27 Consumption sub-roles (%) (N=125)

Searching, viewing and reading are the most often offered roles for users when they consume content online. In almost 78 per cent of the services, users are allowed to

search for particular content. Especially because of convergence and all types of content that are available online, this function is very important. In 72 per cent of the services, users can view content - for example online videos or photos. More than half of the services present users with texts, and more than forty per cent of the services offer audio - like music or podcasts. The least important activity offered (available in almost nine per cent of all services) is simulate/play.

The analysis of the consumption roles in online media services even goes one step further. Do differences exist between the type of media domain and the particular sub-role that users can take on? Table 6 presents an overview of the sub-roles which are enabled in the five media domains.⁴⁵ The last two columns list the Cramer's V association and the significance of the outcome. When Cramer's V indicates a number between 0.2 and 0.6, the two variables are moderately related. When Cramer's V is between 0.6 and 1, two variables are strongly related. In the table, next to the column of Cramer's V, significant levels are shown. These numbers indicate whether the association is significant. An outcome will only be considered statistically significant when the approximate significance level is smaller or equal to 0.05.

45 For each media domain, the table shows the percentage of services that enable the particular consumption roles. For example, Table 6 shows that 83 per cent of the services analysed in the music domain enable their users to listen to content. In the press domain, 90 per cent of the services enabled users to search for content, but none of them offered a simulation or a game to play. To give a bit more weight to these percentages, Cramer's V indicates whether a strength of association exists between media domain and sub-role. Thus - whether services in one particular domain enable certain user roles more often than others, and the differences in percentages are not based on coincidence. The level of dependency between two variables is indicated by a number between 0 and 1; a value of 0 means the two variables are completely independent of one another, and 1 means they are strongly dependent. When Cramer's V indicates a number between 0.2 and 0.6, the two variables are moderately related. When Cramer's V is between 0.6 and 1, two variables are strongly related. In the table, next to the column of Cramer's V, approx. significant levels are shown. These numbers indicate whether the association is significant. An outcome will only be considered statistically significant when the significance level is smaller or equal to 0.05. The table shows a moderate statistical relation between the consumption role listening and media domain. This means that producers in certain media domains more often enable this role in their online services than in others. Because the significance is smaller than 0.05, this relation is statistically significant, and can be included in the analysis. The percentages in the table show that listening is more often enabled in services in the music and broadcasting domain than in the other media domains, which makes sense. Another example is downloading content. Also for this consumption role, Cramer's V shows a moderate relationship. But, because significance is larger than 0.05 (0.062), this relationship cannot be included in the analysis.

Media domain/ sub-role	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
View	54 %	86 %	87 %	69 %	73 %	.240	.155
Listen	83 %	17 %	73 %	21 %	36 %	.382	.000
Read	33 %	28 %	27 %	90 %	64 %	.528	.000
Simulate/play	8 %	0 %	0 %	0 %	36 %	.493	.000
Download	42 %	45 %	33 %	86 %	12 %	.265	.062
Buy	46 %	24 %	7 %	21 %	20 %	.225	.241
Search	92 %	72 %	93 %	90 %	52 %	.303	.011
Obtain service	4 %	24 %	27 %	24 %	4 %	.201	.435
Obtain information	29 %	24 %	27 %	59 %	36 %	.246	.127
Subscribe to newsletter	42 %	24 %	27 %	24 %	20 %	.239	.159

Table 6 Consumption roles made available per media domain

The outcomes of the causality tests in the consumption domain support the idea that most online media services offer media content for consumption. Viewing is evidently more often enabled in the photo, film and video domain and the broadcasting domain (respectively 86 and 87 per cent) and less in the music domain (54 per cent). A significant (but moderate) causal relationship exists between media domain and listening to content. In music and broadcasting services, users are more often enabled to listen to content (83 and 72 per cent) than users who visit news services (21 per cent). Reading is more often offered in services in the Press domain (90 per cent). Simulate/play, is a consumption role that is not often offered by media services other than games and social networks. Downloading is more often enabled in the music domain and photo, film and video domain, and less frequently in the other domains.

Although all services also enable users to take on other roles besides their role as consumer (like creating content and communicating), some services are more solely directed at consumption roles than others. The BBC iPlayer (www.bbc.co.uk/iplayer/), for example, is an online video- and radio-portal provided by the BBC network. Users can personalize their own player and can rate content, but there is no other option for interaction.

4.3.2 Users creating content; more or less active

In 85 per cent of the services, users are enabled to create or customize content. Within creation, a distinction can be made between content creation, which requires more creative effort, and the less active customization and production of content. Users can customize a service by using a number of pre-defined options or produce content by putting content online that has been made by others.

Customize
Produce
Create content

Figure 28 Tag cloud create

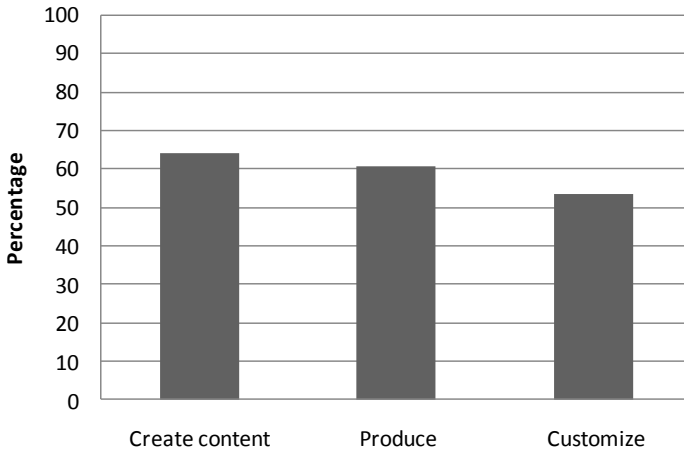


Figure 29 Sub-roles create (%) (N=125)

Figure 28 and Figure 29 display the sub-roles that are gathered under the main role create. In 64 per cent of all services, users are enabled to create some form of content, for example videos, photos or text. In almost 61 per cent of these services, users are enabled to produce content – their own or content made by others. Customizing is offered in more than half of all services.

Table 7 shows the percentages per sub domain. A moderately significant statistical relationship can be detected between media domain and customization. Customization

is, for example, more often offered in the category games and social networks (80 per cent) and less frequently in photo, film and video services (31 per cent). Content creation is offered less in music services (29 per cent) than in photo, film and video services (79 per cent), games and social network services (76 per cent) or broadcasting services (73 per cent).

Media domain/ sub-role	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Customize	54 %	31 %	60 %	45 %	80 %	.275	.041
Create	29 %	79 %	73 %	62 %	76 %	.276	.040
Produce	33 %	79 %	73 %	59 %	60 %	.241	.152

Table 7 Sub-roles create per media domain

Many online media services allow users to create, produce or customize, for example, broadcasting services like BlogTV (www.blogtv.com), Current (www.current.com) and Dailymotion (www.dailymotion.com), who allow their users to upload their own television programmes or videos. Sites in the photo, film and video domain, like YouTube (www.youtube.com), Flickr (www.flickr.com) and Fotolia (<http://eu.fotolia.com>), enable users to post and share video clips and photographs. On social networking sites like Friendster (www.friendster.com) or Facebook (www.facebook.com), users can upload photos and videos. In virtual worlds like Second Life (www.secondlife.com) and Habbo (www.habbo.com) users can create or customize their own character. On the music community OpSound (www.opsound.org), artists are enabled to upload their music and sounds under a copyleft license and the service allows users to download, share and remix this music. Press services like Agoravox (www.agoravox.fr) and Newsvine (www.newsvine.com) allow users to become citizen journalists by writing their own news stories. Services like Blurb (www.blurb.com) and Lulu (www.lulu.com) enable users to publish their own books. The Canadian website Bibli (www.bibli.ca) facilitates users to connect to a community of writers. They can publish (snippets of) poems, stories, scripts, plays and novels. Other users can comment on the writings, add ideas and choose their favourite writings.

4.3.3 Contributing to media services

Contributing to websites is less frequently offered to users than the option to create content. In 73 per cent of all cases, users can contribute to the service in some way or another by adding information, voting or objecting. In slightly more than half of all services, users are enabled to add information. Voting is enabled in 44 per cent of all

media services and objecting to certain content in almost thirty per cent of all cases (see Figure 30 and Figure 31).

Add information Object Vote

Figure 30 Tag cloud contribute

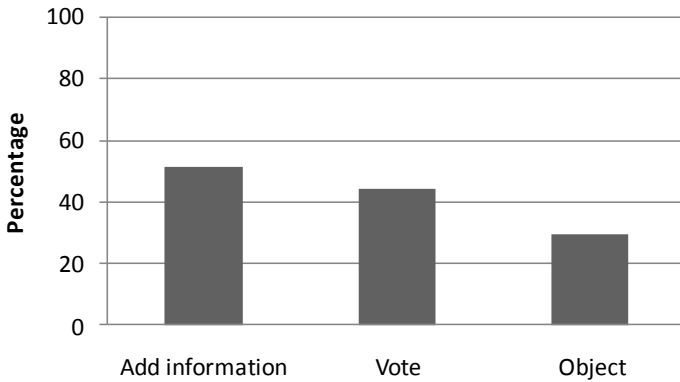


Figure 31 Sub-roles contribute (%) (N=125)

Media domain/ sub-role	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Add information	21 %	31 %	47 %	72 %	76 %	.368	.000
Vote	46 %	41 %	67 %	52 %	24 %	.191	.520
Object	25 %	24 %	53 %	21 %	40 %	.281	.294

Table 8 Sub-roles contribute per media domain

In Table 8 the possible sub-roles under the main role contribute are shown per media domain. A significant and causal relationship can only be established between media domain and adding information. Adding information is more often enabled in social networks (76 per cent) and Press services (72 per cent) than in, for example, music services (21 per cent) or photo, film and video services (31 per cent). An often-used example of a service where users can add information is Wikipedia (www.wikipedia.org) – the user-created encyclopaedia.

4.3.4 Share

Users can share content with each other by uploading it to the internet. Sharing is enabled by 66 per cent of all media services in the case sample. More than half of all these services offer an uploading functionality, and 48 per cent of all services enable users to directly send content from that particular website to another user (see Figure 32 and Figure 33).

Send
Upload

Figure 32 Tagcloud share

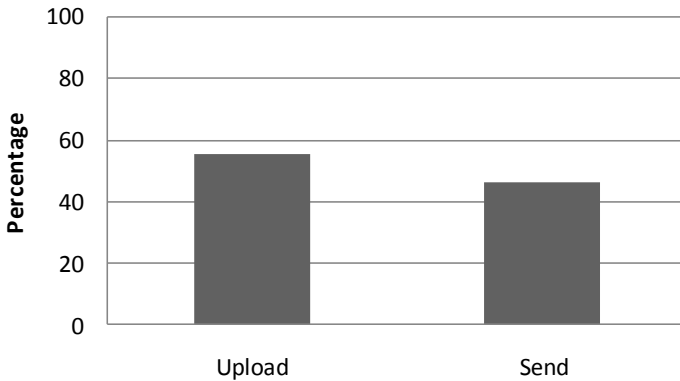


Figure 33 Sub-roles share (%) (N=125)

As Table 9 shows, there are no significant statistical relationships between the sub-roles of sharing and media domains. Online services in the five media domains do not significantly differ in enabling users to share.

Media domain/ sub-role	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Upload	46 %	69 %	73 %	45 %	52 %	.212	.342
Send	29 %	52 %	60 %	55 %	44 %	.200	.441

Table 9 Sub-roles share per media domain

On websites such as Digg (www.digg.com) users can share links to other websites with each other. Plazes (www.plazes.com) is a location-based service that enables users to share their location with friends. Users can determine their location through GPS, or text their location to the Plazes service. This location is then shown on a map. Plazes can be integrated through a widget into services like Facebook, and blogs. The Dutch broadcasting service Tribler (www.tribler.org) is one of the few examples that offer users the possibility of sharing content via a peer-to-peer connection. Tribler offers users P2P television and is based on the Bittorrent protocol. Bookcrossing (www.bookcrossing.com) is a service that allows sharing in a different way. Bookcrossing enables users to release and 'catch' books in real life. Users can leave books they have already read in public places and post the location on the website. Other users can find the book, read it and leave it somewhere else. Users can track the book's journey around the world as it is passed on from person to person.

4.3.5 Facilitate; making services better

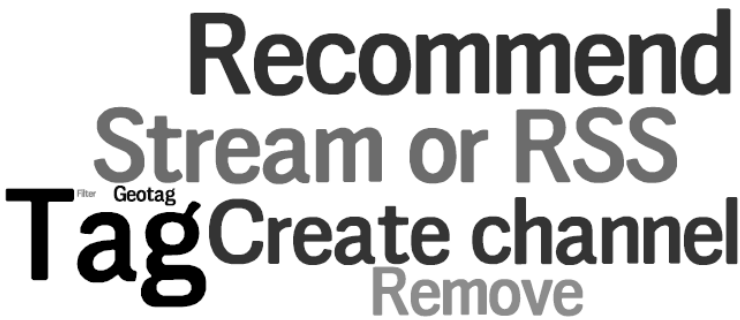


Figure 34 Tag cloud facilitate

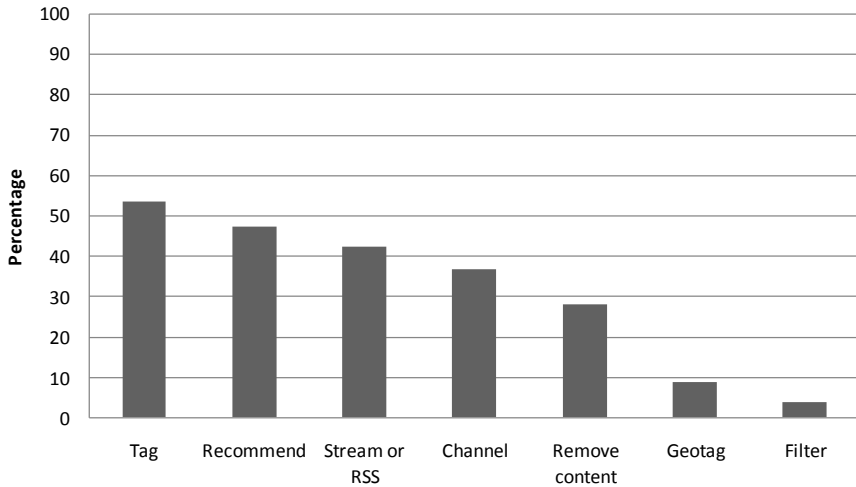


Figure 35 Sub-roles facilitate (%) (N=125)

In almost ninety per cent of all services, users can take on roles as facilitators; they make the service better or easier to use for other users or themselves. Looking at the tag cloud for facilitating sub-roles, tagging, recommending, subscribing to streams or RSS feeds are in the top three of important sub-roles within this category (see Figure 34).

As Figure 35 shows, in more than half of all services, users are enabled to tag content to make it more easily searchable or findable for other users. In almost half of all cases, users can recommend content to one another. In approximately 42 per cent of all cases, users can subscribe to content streams or RSS feeds. In almost 37 per cent of all media services, users can create their own channel of content for themselves and other users to see. Removing content is possible in almost thirty per cent of the cases. Less frequently offered functionalities are geotagging (9 per cent) and filtering content (4 per cent).

Table 10 presents the sub-roles which are enabled in the five media domains. Four sub-roles of facilitating are statistically related to the media entertainment domains. Recommending takes place more often in news, press, publishing (66 per cent) and broadcasting services (67 per cent). These variables are moderately statistically related, and this relationship is highly significant. Tagging is also moderately statistically related to specific media entertainment domains, and this relationship proves to be moderately

significant. Tagging is mostly enabled for users to take on in photo, film and video services (69 per cent) and least in music services (21 per cent). RSS feeds are most often offered in Press services (72 per cent). The association between this variable and the media entertainment domain is moderate, and highly significant. The last statistical association that could be demonstrated is between removing content and media entertainment domain. In 48 per cent of the games and social networks in the case sample, users are allowed to remove content versus eight per cent in music services.

Media domain/ sub-role	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Recommend	50 %	31 %	67 %	66 %	36 %	.321	.004
Channel	38 %	41 %	60 %	28 %	32 %	.220	.276
Tag	21 %	69 %	60 %	66 %	52 %	.301	.012
Geotag	0 %	14 %	0 %	10 %	16 %	.232	.164
Filter	0 %	7 %	13 %	3 %	0 %	.206	.387
Stream or RSS	29 %	48 %	40 %	72 %	16 %	.309	.008
Remove content	8 %	35 %	20 %	21 %	48 %	.356	.000

Table 10 Sub-roles facilitate per media domain

One example of a service that enables users to facilitate is Feedmap (www.feedmap.net), a blog directory that allows users to discover local blogs and news in their neighbourhood. The service offers over 300,000 geo-coded blogs. Another example is CNN's iReport (www.ireport.com), where users can geotag the news stories and photos they take. These are shown on a map. On Clipshack (www.clipshack.com) users can geotag their videos and make them visible on a map. A specific way of facilitating is collaborative filtering. Online radio stations like Jango (www.jango.com) and Last.fm (www.last.fm), for example, allow users to pick their favourite artist or song and build a radio station upon this preference. The radio station is also shaped by musical preferences of other users who like the same artist.

4.3.6 Communication between users and producers

Communication between users is an important functionality in almost eighty per cent of the media services in the case sample. Given the network aspect of the internet and the increased importance of social media, this is not surprising. Looking at the sub-roles tag cloud presented in Figure 36, it strikes the eye that sending messages, commenting and

rating are the largest words, and thus the communicating roles most often offered to users of online media services.



Figure 36 Tag cloud communicate

As is further illustrated in Figure 37, more than half of all online media services offer users the opportunity to place comments (65 per cent) and send messages to each other (51 per cent). In slightly more than half of all services, users are enabled to rate something, for example video content, photos or songs. Chatting is a less popular functionality. It is offered in 12 per cent of all services. In thirty per cent of all services, users are enabled to participate in discussions on a forum.

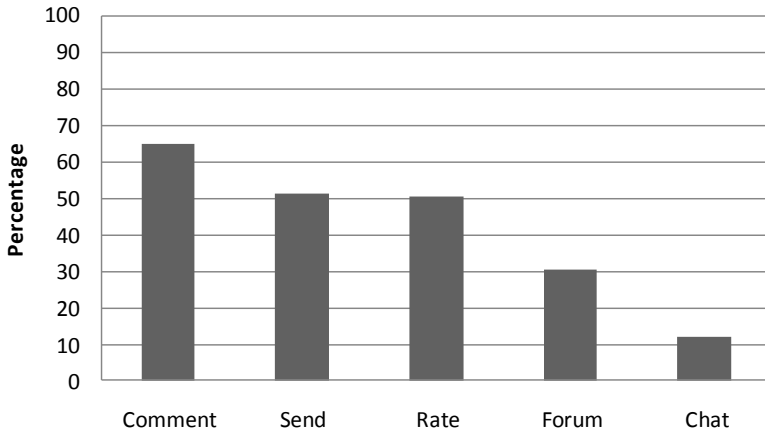


Figure 37 Sub-roles communicate (%) (N=125)

In Table 11 the relationships between communicating sub-roles and specific media entertainment domains are shown. Sending messages is moderately related to the media entertainment domain. It is more often offered in games and social networking services (eighty per cent) than in other services like music (41 per cent) or news/press/publishing services (41 per cent). As with sending messages to other users, most chatting functionalities are offered in games and social network services. The moderate statistical relationship in this case is highly significant. Chatting is possible in forty per cent of the games and social networking services, in 27 per cent of the broadcasting services and in only four per cent of the music services. In the other media entertainment domains, no chatting functionalities are offered. Rating is also statistically moderate, but highly significantly related to the media entertainment domain. Rating is most of all offered in broadcasting services (80 per cent) and least in games and social networking services (20 per cent). Obviously, in broadcasting services video content is rated most often.

Media domain/ sub-role	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Send messages	42 %	48 %	53 %	41 %	80 %	.297	.015
Comment	50 %	66 %	60 %	76 %	68 %	.211	.350
Chat	4 %	0 %	27 %	0 %	40 %	.375	.000
Forum	38 %	17 %	47 %	31 %	32 %	.198	.462
Rate	71 %	62 %	80 %	72 %	52 %	.535	.000

Table 11 Sub-roles communicate per media domain

As the tag cloud at the beginning of this chapter shows, community aspects are important in many online media services. Social communities are based upon communication between users. On micro-blogging service Twitter (www.twitter.com), users can post tweets; 140-character messages that display their senders' current status and what they are doing. Users can follow people they know and get updated each time another user posts a message. Jaiku, a service started in 2005 (www.jaiku.com), is rather similar to Twitter. Users can share short messages called Jaikus. They can create their own stream of Jaikus and follow their friends. Social networking sites like Facebook (www.facebook.com), Friendster (www.friendster.com) and Orkut (www.orkut.com) allow friends to stay in touch. Furthermore, they make networks of friends visible. On LinkedIn (www.linkedin.com), professionals can build their own network. And Ning (www.ning.com) enables users to build their own open or private social network. IMVU

(www.imvu.com) and Kaneva (www.kaneva.com) provide three-dimensional chat services, similar to Second Life (www.secondlife.com).

Rather than primarily interacting with service providers, as was the case in traditional media services, in almost 80 per cent of the cases, users are interacting primarily with other users. This might suggest that the role of the service initiator has become more facilitating in nature than it was before.

4.4 User roles in perspective

As shown at the beginning of this dissertation, traditionally users were primarily enabled to take on consumption and communication roles in media services. They bought media products such as music albums, cinema admission tickets and books, and paid for their subscription to a newspaper, or provided the producer with income by viewing commercials alongside media content. After purchase, people consumed these products by viewing, reading or listening and communicated about their interpretation of media messages. Although many media have always relied on a close relationship with their users (think for example about contestants in a game show on television, or an opinion page in a regional newspaper), these participating relationships have been rather small-scale. Online, media producers have the opportunity to engage with their audiences on a much larger scale, and communication about media (content) is more visible. In the first part of this chapter, these user roles were analysed.

Within the context of online media services, a large variety of user activities is enabled. Figure 38 shows a tag cloud of all possible user roles in the analysis. The main roles are printed in capital letters, the sub-roles in lowercase letters. The bigger the letters, the more often that particular role is enabled by the online media services. In the first place, users are still enabled to be consumers of content. This role has certainly not disappeared in the online domain. Users can search content, view, read and listen on a large scale. Services that offer most consuming options for users are services in the music and news domain. It strikes the eye that only in less than thirty per cent of all media services are users enabled to buy something – content or products. Most services offer (at least part) of their content free of charge. This will be further elaborated on in the financial section of this chapter.

In addition to consumption and creation (the user roles which are conceptualized most often in theories (as was explained in the theoretical chapter of this dissertation), users are also enabled to take on a number of other roles. Users can contribute (by adding information), share and facilitate. Contributing by adding information is offered most by broadcasting services and services in the news domain. Sharing content is enabled most by services in the photo, film and video domain and the broadcasting domain. And photo, film and video, broadcasting and news services are offering users the most options to facilitate.

Communication is the last more traditional user role that is analysed. Traditionally, the audience communicated about media products and messages among each other. As the previous chapter showed, active interpretation was one of the first conceptualizations of more active user practices in the 1980s. In the online domain, these communication possibilities are extended and incorporated into the services. A lot of services that are analysed have community aspects. Many online media services allow users to communicate on a large scale. They are not only enabled to communicate with their direct friends and family (for example by sending them messages or adding them to their friends list), but also to communicate with strangers they meet, for example, based on their content preferences. Broadcasting services and games and social networking services offer users most possibilities for communication.

When all user roles are put together into one single figure in more detail (see Figure 39), one notices that 'new roles', like creating content, uploading, tagging, rating and customizing are often a part of media services. They are not marginalized or less important than traditional roles like reading or listening. The most offered functionality is searching for content.

This first part of the analysis has shown a number of possible user roles. But only offering the possibility of being active does not mean that these possibilities are actually used. In the next chapter, the user survey will shed more light on actual use practices in the online domain. The remainder of this chapter will explore the roles producers take on in these services and the way they organize their services in a technical and financial way.

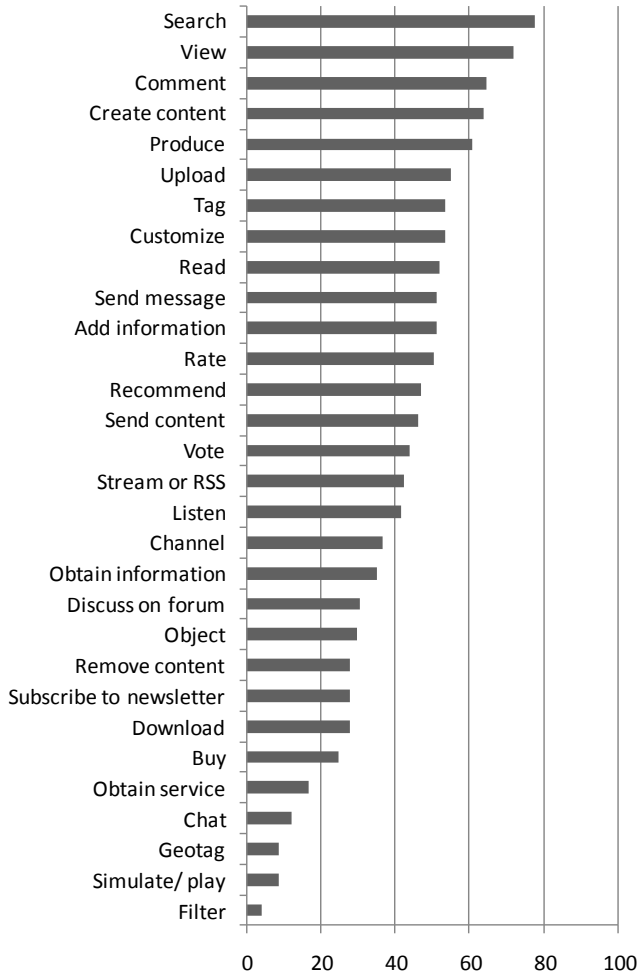


Figure 39 User roles in online media services (%) (N=125)

4.5 Producer roles in online media services

Taking stock of the producer roles in online media services, one sees that these roles are more limited than possible user roles. The most important role of producers of online media services is facilitating the users in fulfilling all their roles. In 95 per cent of all services, the initiators of the service facilitate in one way or another (see Figure 40). Publishing is a role taken up by almost three-quarters of all initiators of the services. Other roles are much less popular. In 29 per cent of all cases, facilitators consult their users on specific subjects or sell products or services. In 19 per cent of all services the service initiators promote a product, idea or service to their users and in only 14 per cent of the online media services, initiators create content themselves. Producers only rate content in three per cent of all services.

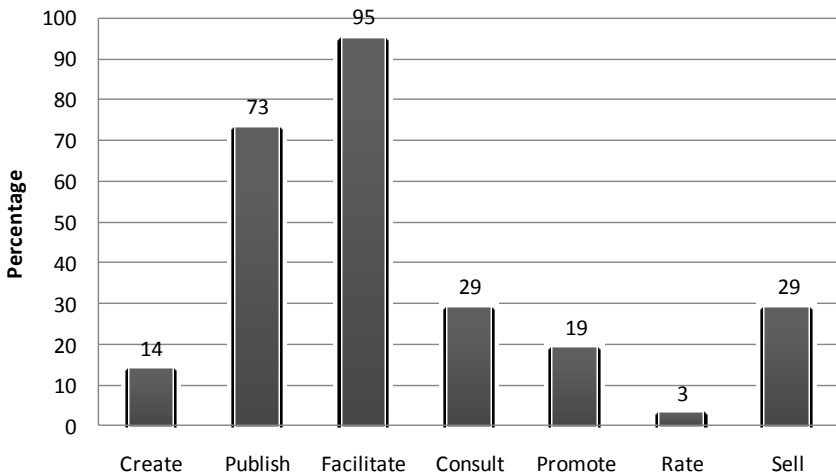


Figure 40 Producer roles in online media services

Just like in the user role section of this chapter, producer roles are divided into multiple sub-roles. They will be discussed below. Similar to the section on the user roles in this chapter, it is asked if services in one particular domain enable certain producer roles more than others.

4.5.1 Creating content: minimal

In this section, only one sub-role is distinguished – creating. As was shown in Figure 40, providers of online services rarely create content themselves. Most of the time, they publish content made by others – for example artists or their users. In broadcasting

services, producers take on a creating role least often (seven per cent) while in news services, producers take on creating roles most often (21 per cent). But there is no statistically significant association between creating and media entertainment domain in the case sample (see Table 12).

Sub-role create	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Create content	13 %	14 %	7 %	21 %	16 %	.188	.549

Table 12 Create content per media domain

Online, web 2.0 media services where producers also create content are rare⁴⁶, but examples are the BBC iPlayer (www.bbc.co.uk/iplayer) – a platform where the BBC offers its own content for users, Artist Direct (www.artistdirect.com) a platform for information about music and artists. The producers have their own editorial team that writes messages. On Crackle, a video website (www.crackle.com), producers distribute digital full-length traditional programming from Sony Pictures. Some services supply editorial content besides user-created content, such as Newsvine (www.newsvine.com) and NowPublic (www.nowpublic.com).

4.5.2 Producers as publishers of content created by others

In almost three quarters of all services, producers take on a publishing role – they make content made by others available to a larger public. Two sub-roles are distinguished; publish and inform. Publishing is making information or content available online. To inform is providing users with information on specific topics, for example, by placing news messages or other content online.

46 Partly, this can be explained by the selection of services for this content analysis. By focusing on web 2.0 media services, who use the web as a platform and their users as the main value-adding actors, it is not surprising that the producers themselves do not often engage in content creation. It is an interesting research outcome though in the discussion about the value of traditional media companies, for example in the news sector.

Inform Publish

Figure 41 Tag cloud publish

Figure 41 shows that publishing is more often taken on by producers than informing the public. In 62 per cent of the cases in the case sample, producers are engaged in the sub-role publishing and in 24 per cent of the cases they are informing their public (Figure 42). The statistical relationship between the publishing sub-roles and the online media entertainment domain is very small and not significant (see Table 13).

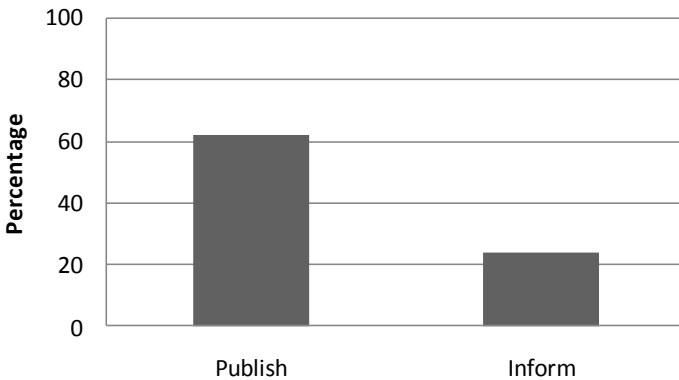


Figure 42 Percentages sub-roles publish

Sub-role publish	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Publish	75 %	65 %	73 %	55 %	48 %	.187	.555
Inform	29 %	10 %	20 %	41 %	16 %	.229	.217

Table 13 Sub-roles publish per media domain

On the internet, many services function as platforms to show content like photos, videos, news messages and weblogs. Famous examples are Youtube for videos

(www.youtube.com), Flickr for photos (www.flickr.com), and Blogger (www.blogger.com) for weblogs. Another lesser-known example is Sleeveface (www.sleeveface.com), a website where users show photos with one or more persons 'obscuring or augmenting any part of their body or bodies with record sleeve(s) causing an illusion'. Or Glypho (www.glypho.com), where users write a novel or story as a group by adding, changing and writing additions to chapters. In those cases, producers do not create the content, but only provide the platform for content to be shown.

4.5.3 Facilitate; the most important producer role

Facilitating is the role that is taken up in some way or another by almost all of the producers (95 per cent) and contains most sub-roles (eight). As the tag cloud in Figure 43 shows, the sub-roles intermediating, facilitating networks and creating channels are the most important sub-roles in this category, while few producers engage in tagging, filtering and organizing offline events.



Figure 43 Tag cloud facilitate (producer role)

Figure 44 shows the sub-roles in more detail; in more than two-thirds of all services, producers intermediate between users and others, like artists, writers, media companies or other users. For example Podomatic (www.podomatic.com), a service that enables users to make, find and share podcasts. Another example is iStockphoto (www.istockphoto.com), a photo website where users can store and sell their photographs to others. In almost sixty per cent of all services, producers facilitate their users to form networks. Not only social networking sites like Myspace (www.myspace.com) and Orkut (www.orkut.com), but also music websites that connect music lovers like Garageband (www.garageband.com). In half of all services, producers create channels for specific content, for example video streams related to a specific subject, or news messages on a particular theme. Examples of these kinds of services are YouTube (www.youtube.com), and Current (www.current.com), an online television

channel that allows users to create groups. The other sub-roles in facilitating are less frequently taken up by producers. In 31 per cent of all cases, producers enable discussion in some way or another – mostly by presenting a forum. Tagging is done by twenty per cent of all producers – much less than tagging by the users (more than half of all services enable users to tag content). Moderating is (visibly) done by 17 per cent of all services. But this role might be underrated, since in 40 per cent of all cases it is unclear whether producers actively take on this role. Filtering content is (visibly) done by 13 per cent of all producers. FreeTube for example (www.freetubetv.net) offers a family channel where all inappropriate content is filtered out. Only seven per cent of all services sometimes organize offline events for their users.

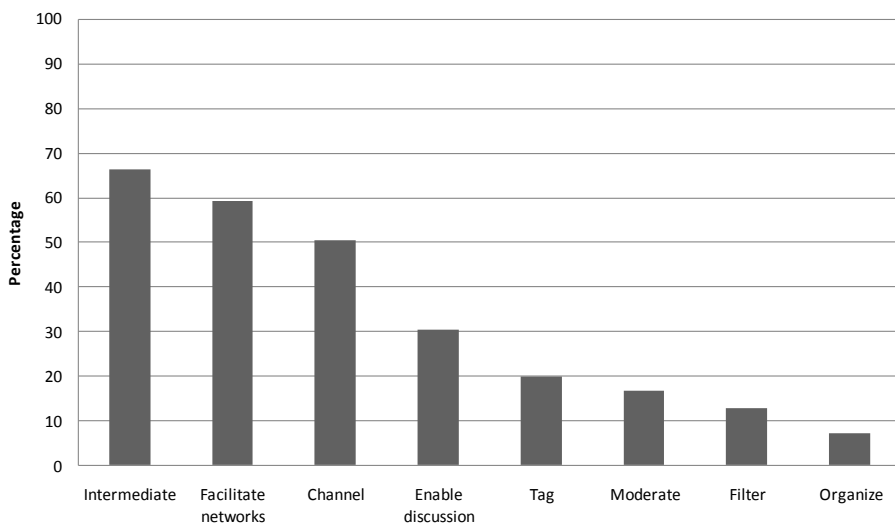


Figure 44 Sub-roles facilitate (%) (N=125)

Significant statistical relations are found between three different sub-roles and media entertainment domains (see Table 14). The first is tagging. In twenty per cent of all cases, producers engage in tagging content to make it better searchable for their users. Tagging is least of all taken up by producers that offer services in the photo, film and video domain (seven per cent). In the news domain, tagging is taken up by almost one-quarter of all producers, in the broadcasting domain in one third of the cases and in the music domain in 45 per cent of all cases. Filtering is taken up least in the photo, film and video domain (seven per cent), followed by the news (ten per cent) and broadcasting domain (13 per cent). In the broadcasting, games/social networking and music domain,

filtering is taken up more often with 13, 16 and 21 per cent respectively. Networks are facilitated in almost sixty per cent of all services, most of all (not surprisingly) in the games and social networks domain (92 per cent). Other domains, like photo, film and video, music and news are all social networks in approximately half of all cases.

Sub-role facilitate	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Intermediate	67 %	59 %	60 %	76 %	64 %	.177	.645
Moderate	17 %	14 %	20 %	21 %	12 %	.232	.200
Channel	63 %	55 %	67 %	48 %	28 %	.224	.248
Tag	46 %	7 %	33 %	24 %	0 %	.329	.002
Filter	21 %	7 %	13 %	10 %	16 %	.322	.004
Enable discussion	21 %	14 %	40 %	45 %	36 %	.206	.365
Facilitate networks	50 %	48 %	60 %	55 %	92 %	.297	.015
Organize	17 %	7 %	0 %	7 %	4 %	.171	.692

Table 14 Sub-roles facilitate per media domain

4.5.4 Consult; asking users for help

Online services enable producers to easily consult their users on various subjects. In almost thirty per cent of all cases, producers consult their users in some way or another. Consulting is divided into four different sub-roles; collecting information, debating, asking for opinions and involving users in the decision process.



Figure 45 Tag cloud consult

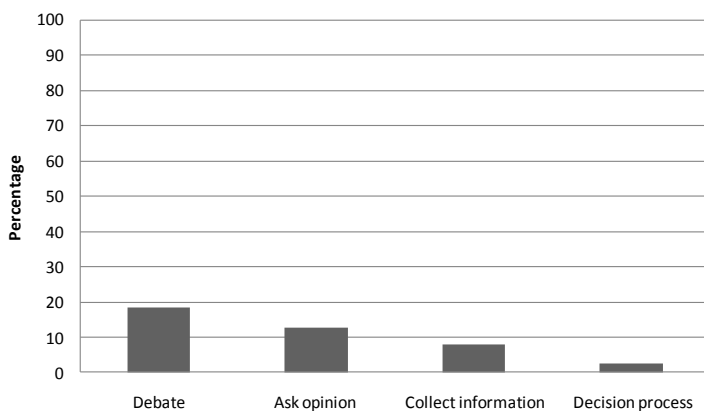


Figure 46 Sub-roles consult (%) (N=125)

Figure 45 shows that most producers consult their users by enabling debate or discussion on a specific theme, for example, by offering a user forum around a particular subject (not simply a general forum). Approximately 18 per cent of all service producers engage in this activity (see Figure 46). A much smaller percentage of producers (13 per cent) ask the opinion of their users – for example through a poll on their website. One example is Agoravox (www.agoravox.fr), a French website that presents citizen journalism. On the website, the producers enable users to share their opinions on articles using comments. Another website, Eventful (www.eventful.com), enables their users to request specific events in their town. In eight per cent of the services, producers use their visitors to collect specific information and in slightly more than two per cent of the services, the producers engage their users in decision processes. A famous example is Wikipedia (www.wikipedia.org), an online encyclopaedia made by users. Wikipedia allows users to write and edit articles on a large variety of subjects. The way an article is written can be discussed and this discussion is also visible for all other users.

As Table 15 shows, only one sub-role of consulting shows a moderate statistical relationship with the media domain. In news services and music services, producers more often engage their users in the decision process. But because of the small numbers, this role is not offered in most services.

Sub-role consult	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Collect information	17 %	7 %	0 %	10 %	0 %	.235	.181
Decision process	4 %	0 %	0 %	3 %	0 %	.263	.068
Ask opinion	13 %	17 %	13 %	17 %	0 %	.202	.419
Debate	21 %	17 %	20 %	21 %	16 %	.134	.921

Table 15 Sub-roles consult per media domain

4.5.5 Promoting products and services to the public

Promote product

Promote service

Figure 47 Tag cloud promote

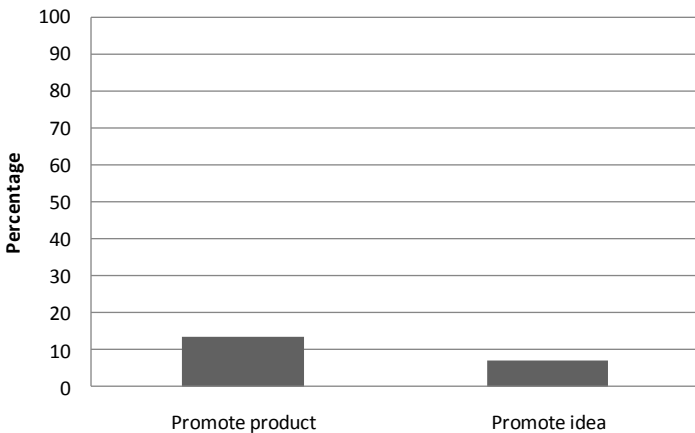


Figure 48 Sub-roles promote (%) (N=125)

In almost twenty per cent of all services, producers use the service to promote products or services. As Figure 47 and Figure 48 show, promoting products is more popular than promoting services. In almost 14 per cent of all media services in the case sample, producers promote products – for example specific artists in the case of Jamendo

(www.jamendo.com) – a legal music downloading platform. In slightly more than seven per cent of the cases, producers are promoting a specific idea through their services. Examples are Tribler (www.tribler.org) promoting free television and Meetup (www.meetup.com) promoting real-life meetings.

As Table 16 shows, no significant statistical relationships exist between promoting and media entertainment domain.

Sub-role promote	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Promote product	33 %	14 %	7 %	10 %	4 %	.241	.152
Promote idea	4 %	7 %	7 %	14 %	4 %	.153	.887

Table 16 Sub-roles promote per media domain

4.5.6 Rating content; a user activity

The least important role in all media services in the case sample is rating content. In only three per cent of all services, producers take on this role. Table 17 shows the various percentages per media domain, but statistically, there is no relationship.

Sub-role rate	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Rate	4 %	0 %	13 %	3 %	0 %	.249	.114

Table 17 Rate per media domain

4.5.7 Selling products and services

Almost thirty per cent of all media services in the case sample offer products or services to buy. As Figure 49 and Figure 50 show, slightly more than 18 per cent offers products and approximately 15 per cent of all services in the case sample offer services for sale.

Sell product Sell service

Figure 49 Tag cloud sell

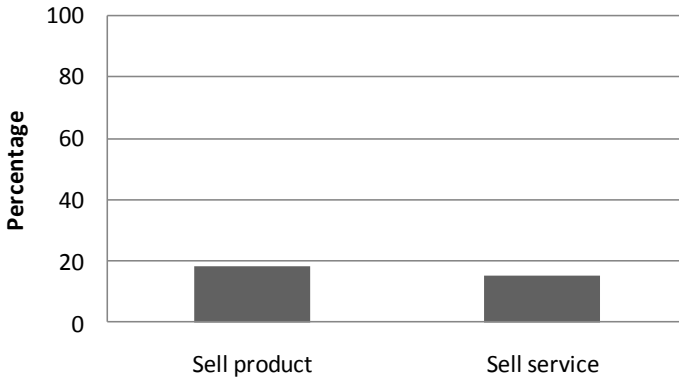


Figure 50 Sub-roles promote (%) (N=125)

A moderate statistical relationship is found between selling products and selling services in the various media entertainment domains. Producers of music services are more often selling products than the producers of other media services. Photo, film and video services are more often selling services to their users than other media services – for example a subscription to a certain amount of storage space.

Sub-role sell	Music	Photo, film and video	Broadcasting	Press	Games and social networks	Cramer's V	Approximate significance
Sell product	46 %	14 %	7 %	14 %	12 %	.275	.042
Sell service	4 %	31 %	14 %	10 %	12 %	.275	.093

Table 18 Sub-roles sell per media domain

Online music services like Artist Direct (www.artistdirect.com) and Deezer (www.deezer.com), offer music albums for sale. Grooveshark (www.grooveshark.com),

another music service, offers downloads and ringtones. But the service also enables users to remove ads for a specific amount of money a month. On Readitwapit (www.readitwapit.com), users can swap books they have already read. But they can also buy new books – the service offers links to books via Amazon. Some media services, like Blogtronix (www.blogtronix.com), sell services (which they call solutions). In the case of Blogtronix, the service builds online communities for large corporations. Clickcaster (www.clickcaster.com) is a webhosting service specialized in podcasts, but also usable for video and photo publishing. The basic service is free of charge, but for more storage and channels, users need to pay a monthly fee. Photo and video storage websites like Phanfare (www.phanfare.com) and Flickr (www.flickr.com) also offer extra storage capacity. The online community builder Ning (www.ning.com) was free of charge up until July 2010. Users could pay a monthly fee for the service to remove advertisements. Since 2010, users need to pay for the service.

4.6 Producer roles in perspective

Both the second and the third chapter of this dissertation showed that traditionally, producers were the creators and suppliers of media content. They served a mass audience and were gatekeepers in the selection process. Especially with limited shelf space, limited space in newspapers and limited broadcasting hours, the gatekeeping process for analogue media was an important one. Also the traditional innovation model (Rogers, 1995) showed that producers were responsible for all the steps in the production process, until the product was dispatched to consumers. But, as explained in chapter one, since the diffusion and adoption of computers and the internet, this has changed. According to Jenkins and Deuze (2008), convergence is both a top-down and a bottom-up process. The top-down process shows that producers are increasingly incorporating the possibilities of digital, two-way media. Hence, they are enabled to give their audience more activities and responsibilities. This might indicate that online, their new roles are different from their traditional roles.

Looking at the results from the analysis of producer roles in online media services, the most striking outcome is that the main role of the producers has shifted from a producing to a facilitating role. The analysis of the producer roles shows that only 14 per cent of the producers are responsible for creating content, while in 95 per cent of the services the producers take on a facilitating role. Services in the news domain are the services that most often offer content that they have created themselves.

Besides creating content and facilitating people to use their services, the analysis has shown that producers can also take-up a number of other roles. Nevertheless, these roles are far less often integrated in online services than user roles. In games and social networking services the producers are taking up specific roles. They leave most interaction and activity to their users. Producers of music services are more often taking up roles like promoting services or products, selling things and consulting their users. Rating is the least important role and is primarily left to the users of the services.

4.7 The technical architecture and financial arrangements

Besides user and producer activities, users and producers can also develop a relationship on two other levels. These two levels are based on the business model framework presented in the previous chapter. In the remainder of this chapter, the technical architecture and the financial arrangements of online media services will be analysed.

4.7.1 Technical architecture

The technical architecture of a media service enables relationships between users and producers to be more open or more closed. Technology can provide opportunities for or constraints on certain user activities. Subsequently the accessibility of the online media services, the way to provide content and the openness of the services for users to access them will be discussed

Accessibility

Almost all – 97 per cent – of the services are web-based. Users do not have to download software to access the (basics of these) services. Nevertheless, to fully be able to use the services, in 21 per cent of all cases, users need to download (additional) software. Examples are media players that can be downloaded on Livestation (www.livestation.com), Miro (www.getmiro.com), Songbird (www.getsongbird.com) and Tribler (www.tribler.com). To enter three-dimensional online worlds like Secondlife (www.secondlife.com), Kaneva (www.kaneva.com) and IMVU (www.imvu.com), users also need to download software. Downloading software can provide a threshold for users to use the services.

Figure 51 shows the accessibility of online media services. In 18 per cent of the cases, the services are non-exclusive. All users can access the services without logging in or meeting certain criteria. In 38 per cent of all services, the service can only be accessed if users meet certain criteria, for example, they need to live in a predetermined geographic location (which is checked through the IP address of the computer) or users

need to provide some personal details to log-in. In 40 per cent of the cases, the services are partly exclusive. Often their basic functionalities are freely accessible, but to personalize the service, to get access to more detailed information like user profiles, to add content or to download or purchase something, users need to log in. They have to give the service provider some personal details like name, email address, country, gender, zip code or credit card information.

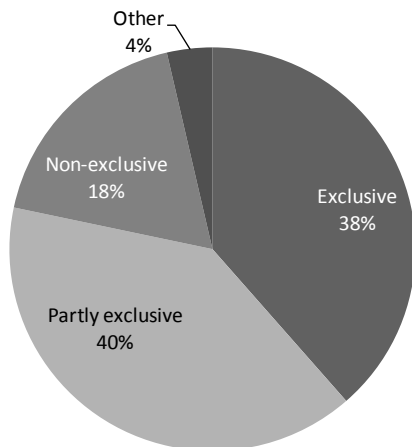


Figure 51 Accessibility online media services (N=125)

Providing content

More than half of the services offer users streaming audio or video on their website and 61 per cent of the services are interconnected with other websites (for example bookmarking websites, blogging platforms and social networking sites). Users can easily transfer interesting links or content to other online services they use. Approximately 78 per cent of the initiatives have a central server to store content. Only 5 per cent of all services use P2P to store and share content. One example, which has already been given in this chapter, is Tribler (www.tribler.com).

Technical openness

Almost one third (31 per cent) of the services have an API (Application Programming Interface) available. An API enables users to build upon the service. And approximately 29 per cent offer a widget, a building block with information or an application that can be embedded into another website. Both technical features make connections between

services possible. Freetube (www.freetubetv.net) for example offers a widget to integrate the television channel into a weblog. The Plazes widget (www.plazes.com) can be integrated into a user's Facebook account (www.facebook.com). Dizzler (www.dizzler.com) offers a widget and allows users to embed the Dizzler music and video player into their own websites.

Only seven per cent of the services provide their service as open source software, enabling users to copy and build upon their source code for free. Plogger (www.plogger.org) is an example of an open source photo gallery. Plogger is a tool that enables users to integrate their photos into their own websites. Songbird (www.getsongbird.com) is a free open source software audio player and web browser.

4.7.2 The financial domain

The online content analysis tool also characterizes the financial arrangements of media services, a second level besides the technical level, on which users and producers form relationships.

Income

Almost all of the services - 94 per cent - are free for users. They do not have to pay for using (the basics) of these services. But since operating online services (and providing content) costs money, producers have to generate income. Figure 52 shows the various ways in which producers of online media services generate an income.

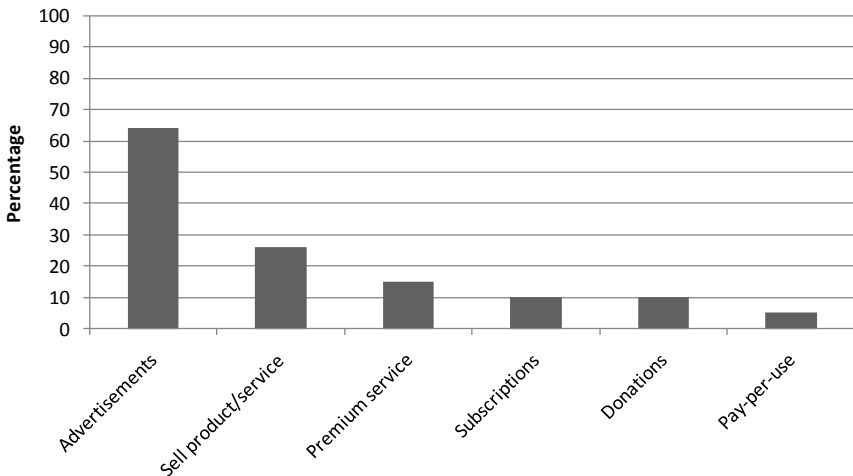


Figure 52 Income online media services (N=125)

Approximately 64 per cent of all services do so by featuring advertisements on their website. Most of them are Google advertisements. But producers of online media services also have other methods to generate an income. Approximately 26 per cent of the services offer products or services for sale and 15 per cent of the media services in the case selection offer users additional (premium) services. Think for example about a premium subscription to get more storage space for videos, or more options in a game or social networking site. Approximately ten per cent of the services offer a (additional) subscription system. Users can subscribe (primarily monthly) to an extra service and five per cent of all services have a pay-per-use system.

Almost ten per cent of all services in the case sample acquire additional income through voluntary donations by their users. Users themselves often initiate these services and the service providers offer the content under a creative commons license or use open source software. One example is Wikipedia (www.wikipedia.org). The Wikipedia foundation only generates money through donations. At the beginning of 2010, Wikipedia founder Jimmy Wales announced on the website that at the end of 2009, Wikipedia had raised 7,500,000 Dollar. Another example of a service that fully relies on donations is Feedbeat (www.feedbeat.com), an open video publisher.

User rewards for participation

Approximately 16 per cent of the services reward their users for participating. Most of them share advertising revenue with the users. One example is Newsvine (www.newsvine.com). This citizen journalism website offers its users part of its advertising income from advertising-accompanied articles on their personal Newsvine page. Orato, another news website (www.orato.com) hires editors, for example freelance journalists, but also experts. They have an editorial system which provides writers with personalized editor feedback per article. Authors receive twenty per cent of advertising income per month as long as their articles are exclusively placed on the Orato website. On Fotolia (www.fotolia.com), users can upload their photos and visuals to sell to other users. Fotolia splits revenues with the photographers. The percentage of royalties is based on ranking (based on number of images sold) and exclusivity. Most royalties are between 33 and 64 per cent. Gather (www.gather.com) is a social networking site directed at conversations. On this network, users gather around specific themes. The network has several sub-domains focusing for example on books, family, food, health and money. By being active on the network, Gather awards its users Gather points. These points can be cashed in for gift cards from partners (e.g. Amazon, The Gap and Starbucks) or cash.

4.8 Technical architecture and financial arrangements in perspective

Helped by digitization and convergence, the technical possibilities of media producers have increased. As the first three chapters showed, the internet offers them a two-way street; they can both provide content to their audience *and* engage their users in a dialogue. Increasingly, producers are incorporating new features into their services. But, as stated before, this also requires new skills from users, and the easier and more compatible a service is, the more likely it is adopted by new users (see Rogers, 1995). The analysis of the technical and financial features of the services showed that online media services are often very easily approachable for users. Most of the time users do not need to download software to operate the service. All they need is a computer with an internet connection. Services seem to be open, in a sense that almost all basics of the services are free of charge. Sometimes, users need to log-in and provide personal information, but mostly, no special log-in is required.

At the same time, the analysis shows that only a very small minority of the services is also technically open in the sense that users can play with the source code of the service. As stated in the introductory chapter, many techno-utopians state that the internet provides users with numerous options to do things by themselves, and the developments 'democratize' media (Gillmor, 2009). This indicates that users are free on all levels and the differences between users and producers disappear. But the analysis in this chapter shows that complete freedom for users is rare. Many producers in online media services do not offer their services in an open way. They do not provide the source code for users.

One of the issues featuring in debates on the changes brought about by the internet (see chapter one), is the way producers generate revenue with online media services. In the pre-internet era, the production process was much simpler. Analogue content was sold on paper, on cassette tape, on video. Advertisements were printed in the newspaper and shown on television. Online, users have an extended choice, and can get a lot of content free of charge. In the historical chapter, attention was paid to users downloading music and movies without paying. Also, newspapers struggle with users who are not willing to pay for content online. Thus, the financial arrangements of media producers are under pressure. Many producers struggle to find a balance between offering their content for free and charging users for their content. Nonetheless, the internet also provides opportunities to generate money in different ways. The long tail principle (Anderson, 2006) opens up many small niche audiences, shelf space is infinite

and money can be made by targeted advertising, donations, pay-per-view arrangements and other revenue models. But do the producers make use of these options? The analysis in this chapter shows that financially, most services still rely on advertisements to generate an income. Nonetheless, a number of services are implementing alternative revenue models like offering premium content or relying on donations. In a small number of services, users share revenues when they act as content creators. This is a significant change compared to traditional revenue models in the offline media domain.

4.9 Conclusion: a wide variety of opportunities

In the above sections, possible user roles and producer roles and technical and financial arrangements were analysed by means of an online tool for quantitative content analysis. These outcomes were illustrated by presenting examples of online media and entertainment services in the case selection. At the end of this chapter the third sub question can be answered: how do current online media services incorporate user roles and user/producer relations? Also, a comparison can be made between traditional media services (as presented in the previous chapter) and online media services (as analysed in this chapter).

Traditional (offline) media and entertainment services provide content to consumers in an analogue way. In music stores, people can buy music albums or singles. In bookstores, people are offered books. On television and in cinemas, movies and television programmes are shown following a predetermined schedule. Newspapers offer a selection of daily news, opinions and backgrounds. Media companies acquire an income through the sale of these products, subscriptions and advertising. Offline, the wall separating the producing world from the consuming world is practically impermeable. If users want to create a video of their own, if they want to recommend a certain music album to others or if they want to talk about a book they have read, they depend upon themselves and their social circle for doing so. More active user roles therefore can be taken on, but only on a small scale and confined to the domestic and private domain.

The analysis in this chapter shows that media services on the internet offer different opportunities. They open up boundaries and make user/producer interaction easier. Even more, they enable large-scale user-to-user interaction by enabling users to gather in communities and find like-minded people. Online, users and producers can interact much easier than in the pre-internet age (McMillan, 2002). Since 2004, the online domain has witnessed an increase in these media services. Especially the web 2.0

concept can be used to classify these services. They place the user at the centre of the services, and function as platforms for all kinds of user interaction. In a few years, many of these services have outgrown the beta stage. But contrary to claims that the internet has made the consumer obsolete (Shirky, 2000), the analysis in this chapter shows that just as in traditional media services, consumption is still a very important role. It is, in a sense, also a precondition for other roles; users are audience and participants at the same time. This underlines the importance of the idea of produsage as coined by Bruns (2008).

Although not all producers engage in creating content themselves anymore, most of the services supply content to audiences. But the services also offer extra functionalities. The roles which are offered to users range from content creation to sharing, facilitating and communicating. They have been explained in the section on user roles in this chapter. Many services have a community aspect; they enable users to find people who love the same music or care about the same subjects enough to write news articles about. In numerous social networks, users find friends they already know from their (professional) real life or have never met before. Users are enabled to personalize these services to a great extent, listening to music they love and music that like-minded individuals have liked. Thus, online media services in the case sample enable users to take on other roles besides consuming media content and communicating about it. They are enabled to become prosumers, engage in user-created content, take up a role in crowdsourcing or directly help a producer by participating in co-creation projects.

A big difference with analogue media services is that content creation in online media services is often taken up by the users themselves. The users can indeed become creators and suppliers of content instead of only consuming it. A large variety of websites offer user-created content, rather than producer-created content. In only 14 per cent of the services, producers make the content themselves, while in 85 per cent of the services, the users provide the content. This has extensively enlarged the online offer of media content. Furthermore it has put the traditional gatekeeping role of content producers into a different perspective. The most important role for media service producers online is facilitating the process of content creation, facilitating users to find the content they want, store content for users, provide them with the tools to create and facilitate networks.

Technological features of the media services in the case sample provide users easy access. Most services are web based or can be downloaded via the web. Users do not have to be very technically oriented to use the services. The interface of most services is

simple. Technical possibilities enable services to link to and build upon one another, creating a social web. Many services provide links to other websites, enabling users to store their links in various places, show their tweets on their LinkedIn account or their photographs on their social network. By offering widgets or APIs, services give away a small part of their code for users to do with as they please. But true technical openness is reserved for only a few. Not many media services make use of open source software or peer-to-peer file-sharing.

Traditionally, media entertainment producers got their money through the sale of products, subscriptions or advertisements. In the online domain, producers primarily still rely on these revenue models. Most services have advertisements, some sell subscriptions to (premium) content and some sell products like books. But the online domain also enables other revenue models, for example, small-scale donations made through PayPal, micropayments for additional options in social networks or premium content. And since the services heavily rely on user-created content, some services reward users for participation. Sometimes users are paid in virtual credits, but more often they receive real money, like part of advertising revenue. This is significantly different from the traditional organization of the media entertainment industry before the deployment of the internet.

This chapter has shed light on *possible* roles users in online media services. Although the selection of services was based on a list of popular online websites and it is clear that many of them have a large and active user base, the absolute use of these services and the exact way users make use of the functionalities offered is not yet analysed. Therefore, in the next chapter, the focus will shift from *possible use* to *actual use* of online media services.

5 Actual user practices in online media services

The previous chapter presented an analysis of online media services and compared them on a number of pre-defined variables. The analysis showed that many services have embraced the possibilities for users to become active. But *possible use* does not always equal *actual use*. As mentioned in the first two chapters of this dissertation, the concept of participation inequality and the 1% rule (Nielsen, 2006) indicate that not all users will take on content producing roles online. To acquire more understanding of actual practices of users in online media services, and to see whether these online user activities differ from offline media use, an online survey has been carried out. In this chapter, the results of this survey will be discussed, providing the answer to sub-question four; what roles do users actually take on in online media services?

This chapter starts with an explanation of the methods used for the user survey. Subsequently, the results are presented, roughly following the structure of the business model levels, as introduced in the third chapter. Firstly, the results regarding general characteristics of the respondents and their offline media use are presented. Secondly, online user roles and differences between user groups are discussed in consumption, creation/customization, contribution, sharing, facilitating and communication roles. Thirdly, in addition to an analysis of differences in media use between different user groups, the differences between online and offline media use are analysed in all five media domains. Fourthly, the way users play a part in financial and technical arrangements of online media services is reviewed, followed by an overview of user opinions on changing user roles and shifting user/producer relations. Throughout this chapter, possible differences between different user groups are presented.

5.1 Methodology: online user survey

In this chapter, focus shifts from media services as research units to users as units of analysis. Therefore, a cross-sectional online user survey is carried out (a copy of the survey can be found in Appendix 3). Surveys are an often used method to generate data from a large group of respondents in a relatively short period.

5.1.1 Research subjects and data collection

In online user surveys, internet users are the research subjects, in principle including all people who use the internet for media entertainment purposes in their spare time. No distinction was made between age, gender, education or skills, but the user survey was

only presented in English or Dutch, therefore limiting the participation of people from other countries who do not master one of these languages. Before the survey was put online, first, the survey was filled in by five respondents to see whether the questions were adequately formulated. After receiving their feedback, the survey was further adjusted and made available for a larger group of users.

The respondents were collected in the social network of the researcher by sending an invitation for participation with a link to the survey. A link to the online survey was also placed on the researcher's website, the website of TNO and it was sent to students of the master programme Media and Journalism at Erasmus University Rotterdam through a mailing list. Furthermore, Habbo and Sugababes/Superdudes users were contacted who had indicated in a previous research project that they wanted to participate in a research follow-up. Respondents were asked to complete the survey and send the link to other internet users. This can be characterized as a snowball method. The first respondents are used to generate more responses. One important shortcoming of this method is that not all internet users have an equal opportunity to be included as participants. Therefore, the results are not representative for the entire internet population. But it will give an insight into the internet use of a representative user group. This research aims to explore the behaviour of everyday internet users, and especially people in the younger age groups, like students or Habbo/ Sugababes users are regularly online. Furthermore, the strength of the snowball method is that users are probably more willing to complete a (long) questionnaire if they know the person who sent it to them. The online survey was online from half September to half December 2008 and was filled in by 750 internet users, of whom almost 80 per cent (598) fully completed it. Only the completed surveys were used in the analysis.

The division between male and female respondents is 43 to 57 per cent. The average age of the respondents is 32 years. The youngest respondent is 13 years and the oldest is 70 years. Table 19 shows the breakdown between age categories. As can be seen, the 25-44 age group is the largest group of users, and thus shows an age bias. Initially, a fourth age category was defined as 65+. But since this category consisted of only 2 respondents, it was merged with the category 45-64 and renamed the 45-70 category (see Table 19).

Category	Percentage of respondents
13 – 24 years	53%
25 – 44 years	29%
45 – 70 years	18%

Table 19 Age division respondents survey

The survey was provided in Dutch and English. Most respondents were Dutch (92 per cent). Dutch-speaking Belgians and Swedes accounted for two per cent. Americans and Italian respondents accounted for one per cent each. The remaining two per cent consisted of respondents from Australia, Burundi, Chile, China, Colombia, the Philippines, Germany, Greece, New Zealand, Poland and Spain. Unfortunately, due to these small numbers, a comparison between different countries cannot be made. As explained above, the respondents were gathered in the social networks of the researcher, and via mailing lists of university students. Thus - in addition to a young age bias - it is probable that the respondents will have the Dutch nationality and a higher education than average. This presumption is confirmed by the education level indicated by the respondents in the survey. Almost half of the respondents indicate they have a college Master's degree; three per cent have completed a dissertation. Almost one-quarter have a college Bachelor degree. Approximately twenty per cent have a high school diploma. Only two per cent of the respondents indicate that they have finished a secondary school for lower general/vocational education. This high level of education needs to be taken into account when the results of the survey are interpreted.

5.1.2 Survey construction

The survey was constructed in Survey Monkey, a tool for designing questionnaires. Online, many tools exist that offer researchers the possibility of constructing online surveys. Most services are web-based and easy to use. Surveys can be distributed by sending a link to a specific web address. Participants can fill in the survey anonymously and data are automatically gathered in a spread sheet for analysis. Survey Monkey uses a premium business model and offers various services: a basic service free of charge, and a number of paid subscriptions. For this survey, a paid subscription is used, which offers more security and more options.

The questions in the survey are specified to explore actual user roles online and offline. Besides asking users about their personal characteristics (to enable comparison between various user groups), the questionnaire generally covers the business model levels as described in the third chapter. Since the study focusses on users instead of specific services or producers, only the value network, financial and technical levels are

taken into account. Most emphasis is placed on user roles, thus the value network level is most important and most questions of the survey are directed at the activities of users in offline and online media. The user roles are questioned on the basis of the user roles as described in the third chapter. They structure the answering categories.

First, users are asked about their media use. They are invited to indicate which media they use in their spare time. Users will also use the internet for work-related activities and studies, but because the research is directed at media services, which will primarily provide entertainment and relaxation, the focus lies on media use in free time. Secondly, they were asked to characterize themselves concerning purchasing and using new technological gadgets and their computer skills. These variables will help construct the different use types based on the well-known typology of Rogers (1995) (innovators, early adopters, early majority, late majority, laggards). Furthermore, the respondents are asked how many minutes a day they spend on the internet in their spare time and whether they engage in cross-media activities like watching television on their mobile phones or ordering a film on digital television. These two variables are used to further clarify user types.

In the second part of the survey, respondents are asked to indicate their offline behaviour concerning media activities. This question shows whether the internet enables users to take on completely different roles, or if users are employing the same activities on- and offline. Especially literature about internet use indicates a difference between the net generation (Prensky, 2001) and older internet users who did not grow up using digital media technologies. These older generations might be more inclined to use the media they grew up with. Furthermore, an interesting comparison will be whether users engage in similar or different activities online and offline. In other words, is the internet an extension of their offline behaviour, or not. The third part of the survey assesses the online consumption activities of users. They are asked very detailed questions whether they, for example, read e-mail, subscribe to newsletters, watch short films, and listen to podcasts etcetera. All consumption roles are detailed for the five media entertainment domains defined in chapter one. The fourth survey part is about users creating content online and contributing to online services. They are asked whether they write weblogs, make websites, edit photos, write news messages, and upload music. The fifth part of the survey is about facilitating roles like recommending or tagging content. The sixth part covers communicating roles, for example commenting on a news message or reacting to a weblog. The survey also provides room for additional roles which respondents have not yet seen represented in the question list so

far. The user roles are an adaptation and expansion of the roles used in the quantitative content analysis of media services.

In the eighth part of the questionnaire, questions are asked about internet use in general. The questions are formulated in the financial and technical domain of the business model. Questions like 'do you ever buy media products online?' or 'do you ever use Open Source Software like Linux or Firefox?'. The ninth part of the survey represents a list of statements concerning internet use, the role users play and the way users and producers interact. The survey closes with general user information like gender, age, nationality and education. These variables are used to further detail the user groups and to compare gender, age and level of education.

5.1.3 Analysis

The survey results are analysed in SPSS and Excel. Primarily, the analysis consists of descriptive statistics. Furthermore, in this dissertation, internet users are not treated as a homogeneous group of people. Differences in age, gender or user type might influence the use of online media services. Therefore, in addition to an analysis of frequencies and average use, the group of respondents is divided into different categories and compared according to age, gender, user type and skills. Because of the nominal and ordinal level of the variables in this survey, all relations indicated in this chapter are measured by using crosstabs and a chi-square-based measure of nominal association, Cramer's V. As explained in the previous chapter, Cramer's V tests the strength of an association. Approximately significant levels are taken into account to measure the significance of the outcome. The level of dependency between two variables is indicated by a number between 0 and 1; a value of 0 means the two variables are completely independent of one another, and 1 means they are strongly dependent. To narrow the analysis down, only moderate (V is $0.2 < 0.6$) or strong (V is between 0.6 and 1) associations will be included. This implies that V needs to be at least 0.2 . For a small number of variables, which are measured on an ordinal or interval level, different statistical measures could be used, like correlation or regression. But since this is primarily an exploratory and descriptive research, it is not necessary to determine the direction of causality. Therefore just simple statistical measures are used to determine whether the differences between different ages, gender and skills are sufficiently relevant to discuss or not.⁴⁷

⁴⁷ One last note should be added on the structuring of the various activities within the defined main user roles. Methodologically, the main roles could be conceptualized as a summated rating scale on

5.2 Media use and user types

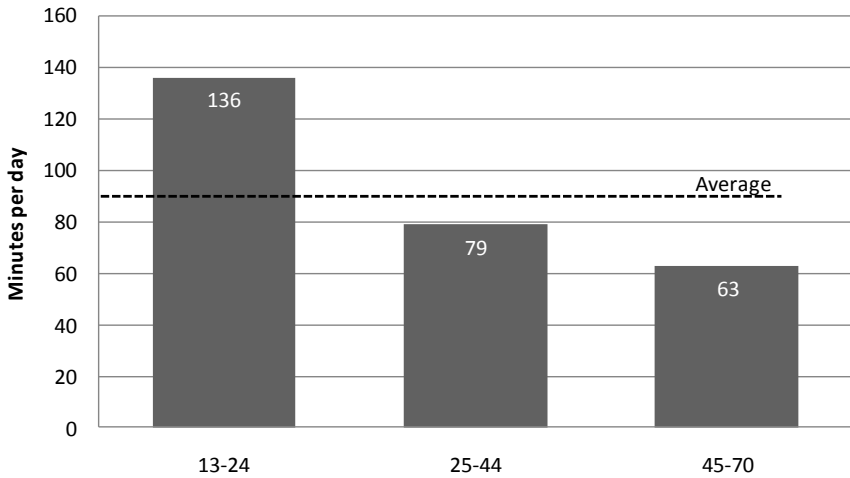


Figure 53 Average minutes online a day per age group (N=598) (spare time)

The respondents spend on average approximately 1.5 hours per day on the internet in their spare time (the median is one hour). Men spend on average more time online than women, but the difference is small: 98 minutes versus 89. The differences are more apparent by looking at age groups (see Figure 53). The youngest group of respondents (13-24 years old) are online on average 136 minutes a day, well above average. They spend more time online than the 25-44 age group (79 minutes) and more than double the time respondents between 45 and 70 years old spend online in their spare time (63 minutes).

which the activities serve as items (Nooij, 1996). In that case, statistical item analysis (by using, for example, Cronbachs Alpha, component or factor analysis) needs to be undertaken to determine to what extent the items fit the scale. To underline the exploratory character of this dissertation, and to be able to handle the large amount of data available in all three empirical studies, the construction of scales is postponed for further research. The objective of this dissertation is not to find rigid user activity scales, but to explore the broad palette of user roles in online media services. For now, the main user roles are thus applied to provide a general structure for the analysis.

5.2.1 User types

Following the conceptual approach of this thesis, in this chapter different user groups and their offline and online media use are studied. The general characteristics of the respondents (age, educational level and gender) were already explained at the beginning of this chapter. In the analysis, furthermore, a distinction is made between fast or slow adopter types and computer skills.

The respondents were asked to describe how they purchased and used new technologies. They could choose from five categories loosely based on the five adopter types of Rogers (1995); (1) advanced, (2) fast, (3) average, (4) hesitant and (5) lagging behind. Two per cent of the respondents consider themselves advanced users. They always immediately acquire the newest technological gadgets, mostly before anyone else does. They are very keen on trying out new media technologies. This category is related to the innovator user type of Rogers. Approximately 21 per cent of the respondents think they are fast in acquiring new technologies. They state they usually wait a little while before acquiring or using new gadgets until they have heard or read some more about them. But they still are very quick in acquiring new technologies. This category can be compared to the early adopter category of Rogers. The largest number of survey respondents, almost 50 per cent, indicate they are average users. They wait a while before they acquire or use a new gadget until they really know something about it, for example because they have seen it being used by others. These users can be considered to equal the early majority of Rogers. Approximately 25 per cent of all users state they are hesitant in buying or using new technologies. They indicate that they wait until most other people already own the new technologies before they decide to purchase them. Rogers considers this group to be the late majority. And finally, the last group of users, five per cent, consider themselves to be behind the times. They are very hesitant about buying or using new technologies. They try to wait as long as possible and when they finally acquire or use a new technology, probably everybody else already uses it. Rogers calls this group 'laggards'.

When the adopter types of Rogers and the user types in this research are compared, it might be concluded that the survey respondents are slightly more willing to acquire and use new technologies than would be expected in society at large. Both the group of fast users (or early adopters) and average users (Roger's early majority) is larger – approximately 7 to 10 per cent. And the hesitant and lagging behind categories (Roger's late majority and laggards categories) are smaller than the categories of Rogers (approximately 10 to 12 per cent). This might be explained by the fact that Rogers did not validate his user categorization for the internet population. Internet users are

already using technology; this might indicate they are more susceptible to technologies in general. The higher education level of the respondents could provide another part of the explanation.

Gender differences are present in the way users classify themselves (see Figure 54, Cramer's V is .249 and significance is .000). Male respondents classify themselves more often as advanced or fast adopters of technology (respectively 4 and 29 per cent) compared to women (0.3 and 15 per cent). Women view themselves as more hesitant when it comes to adopt and use new technologies and media.

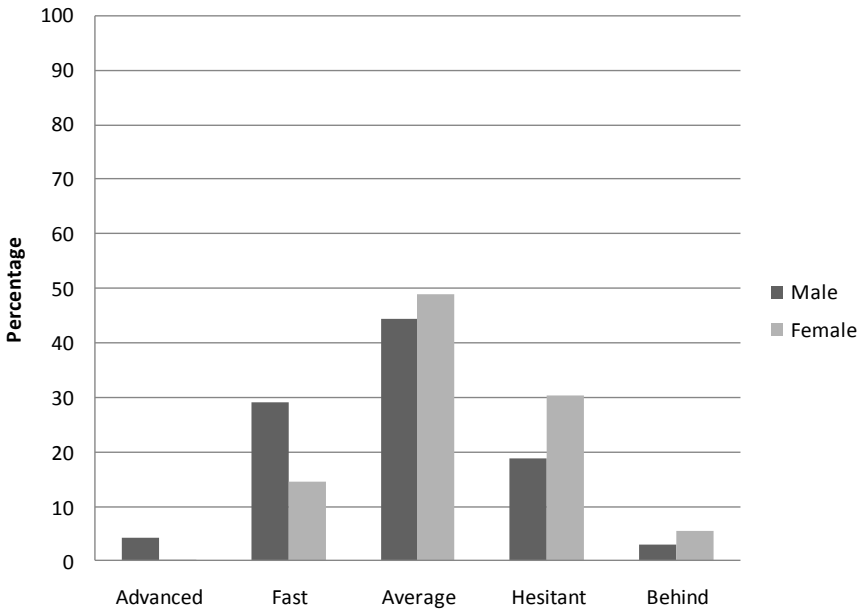


Figure 54 Gender differences in user types (N=598)

Figure 55 shows the differences between the age groups and user types. The most important difference is the fact that the 25-44 age group indicate they are reasonably fast in acquiring and using new technologies. But these differences are only weakly statistically related (Cramer's V is .122, significance is .007).

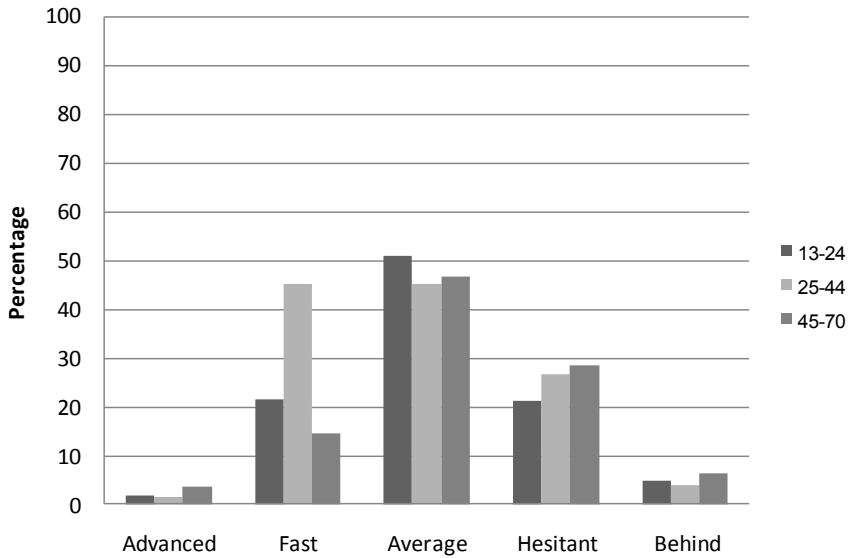


Figure 55 User type by age group (N=598)

5.2.2 Computer skills

Respondents to the survey were asked to classify their computer skills. As Figure 56 shows, no respondent classified their skills as minimal. This is not striking, since minimal would mean they only knew how to start a computer, but not how the internet worked. One respondent is a novice when it comes to computer skills. She knows how to start a computer and sometimes visits the internet. She knows the rudiments of software like Word, but she does not have a lot of knowledge about software programs and always needs a lot of help. Average computer skills account for 22 per cent of the respondents. They can find their way on the internet and master the most necessary software like word processing. Sometimes they still need help because they don't know some programs well enough. A majority of 63 per cent of the respondents think their computer skills are good. They can find their way on the internet and have mastered the most important software (for example word processing programs, spread sheets and image-editing programs like Photoshop). They practically never come across problems that they cannot fix. And 15 per cent of all respondents state their computer skills are very good. Their technical skills are high; they can handle most software well and can find their way on the internet easily and even have programming skills.

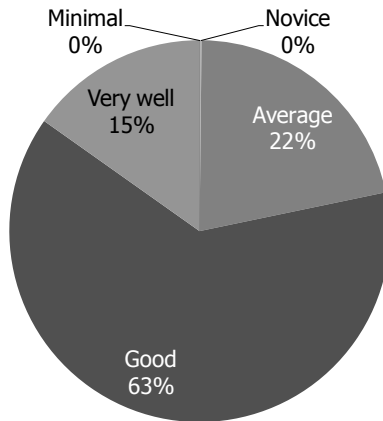


Figure 56 Computer skills (N=598)

These figures are well above average compared to the skills of computer users in the Netherlands generally. According to Statistics Netherlands (CBS, 2008), 34 per cent of the Dutch population of computer users had average skills in 2008 and 33 per cent had high skills. One-fifth of the population had few skills and 13 per cent no skills. These two last user categories are clearly underrepresented in this study. This difference might be explained by the fact that users had to assess their own computer skills based on one question. The length of the survey did not allow for a more extensive operationalization of the concept skills, neither could the skills of the 598 respondents be measured in a qualitative way. Another explanation might be that internet users, who decide to fill in an online survey, are the ones who have more computer skills.

5.2.3 Media use

The respondents use, on average, nine different media technologies (see Figure 57 for an overview of media used). Almost 100 per cent of all respondents have a computer or a laptop. Around 60 per cent have both, 29 per cent only a computer and 11 per cent only a laptop. Mobile telephones are used by 97 per cent of all respondents, and 71 per cent of these telephones is equipped with a camera functionality. Almost 95 per cent own a television, and 46 per cent have a digital television subscription. Almost 85 per cent of all respondents have a digital camera. Almost 80 per cent of all users read newspapers, of which 32 per cent only read free newspapers. Radio, MP3 or MP4 players, DVD players, magazines (both free and subscription) and CD players also have a high penetration (between 78 and 71 per cent). Approximately 35 per cent of all respondents own a game device like a game console (e.g. Playstation, Xbox, Wii) or

handheld (e.g. Nintendo DS or Playstation Portable). Video or DVD recorders, PDAs and HD recorders are less frequently used.⁴⁸

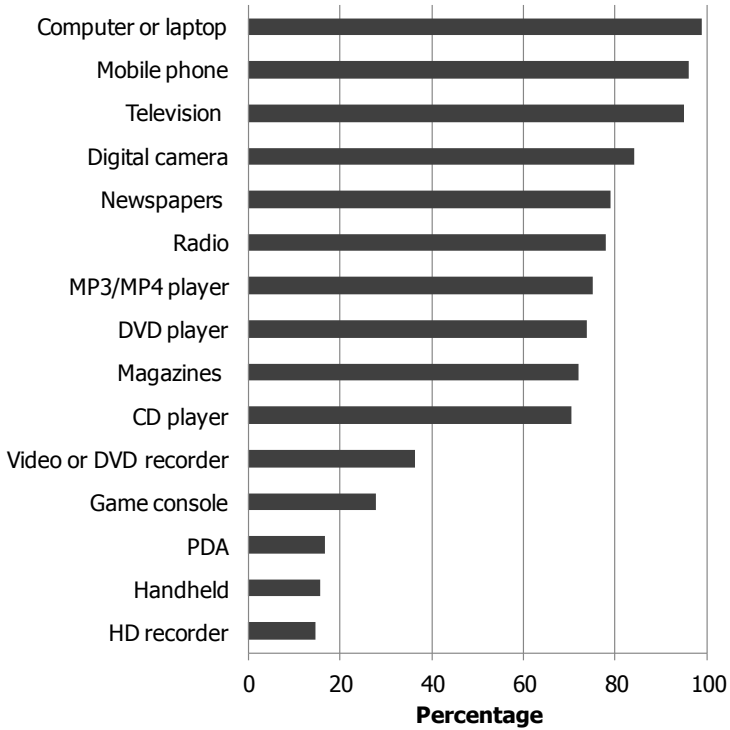


Figure 57 Media technology ownership (%) (N=598)

Looking at differences of media ownership and use between the different user categories, particularly differences between age groups and user types catch the eye. Younger users are more likely to have and use game consoles and mobile phones. Older user groups more frequently have a subscription to a newspaper and own a CD player and PDA. Users who classify themselves as advanced or fast adopters are more likely to own game consoles, mobile phones, MP3 and MP4 players or a PDA (see Table 20).

48 While the user survey was carried out, tablet computers like the iPad or eReaders were not yet widely used. Therefore, they are not included in this survey.

	13-24	25-44	45-70	Cramer's V	Approximate significance
Game console	39%	29%	9%	.219	.000
Mobile phone with camera	85%	70%	53%	.239	.000
Newspaper subscription	37%	45%	69%	.216	.000
CD player	51%	76%	85%	.283	.000
PDA	5%	18%	31%	.241	.000

Table 20 Age groups and ownership of media technologies

5.2.4 Convergent media use

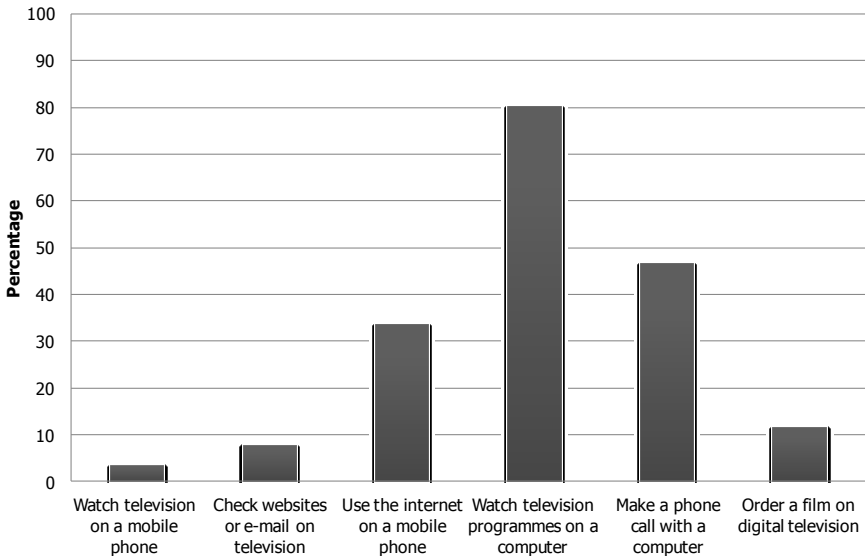


Figure 58 Convergent media use (N=598)

Since the respondents seem to be technology oriented and skilled above average, it can be expected that they are using these media in convergent ways, for example, by checking their e-mail on the television screen, watch television on their mobile phone or on their computer. This converging media use is represented in Figure 58. Three per cent of all respondents watch television on their cell phone and eight per cent use the internet on their television. Slightly more than ten per cent order films on digital television. The computer seems to be functioning as a more suitable screen for convergent media use; almost half of all respondents make phone calls with their

computer (e.g. through Skype) and a large portion of respondents, 80 per cent, use the computer to watch television programmes.

5.3 Offline media entertainment use

To gain a better understanding of regular, offline media use, the respondents were asked to indicate if, and how often they engaged in offline media activities.⁴⁹ On average, respondents chose 17 out of 23 activities. The average respondent watches television multiple times a day, meets with friends, listens to music and radio and reads newspapers and books at least once a week. The average user, furthermore, reads magazines, looks at photos, watches a DVD or video, looks up information on teletext and buys a book at least once a month. Less frequent activities are going to the cinema, playing games (both board games and video and computer games), buying a music CD or DVD or a movie on DVD or video, copying a CD or DVD from someone, making videos and looking up information in the library. These actions are carried out at least once a year by the average user. Practically no one keeps a diary, sells things to others or gambles.

Figure 59 shows offline media activities in more detail. The activities are arranged in order of importance. Each bar shows the percentage of users who engage in that activity and how often they carry out this activity. The five-point scale is converted to match three use categories; seldom use (less than once a year), regular use (approximately once a month) or daily use (at least once a day). A clear division can be observed between media entertainment activities that are carried out on a regular basis and activities that are carried out less frequently. Users for example buy media products like CDs, DVDs or books, but not every week. Traditional ‘passive’ consumption roles like watching television, listening to music, reading newspapers, magazines and books are carried out more often. Meeting friends is also a regular activity. Almost forty per cent of all respondents meet their friends at least once a week.

49 Respondents could make a choice on a five-point Likert scale (never, sometimes (at least once a year), now and then (at least once a month), regularly (at least once a week), often (at least once a day) or multiple times a day).

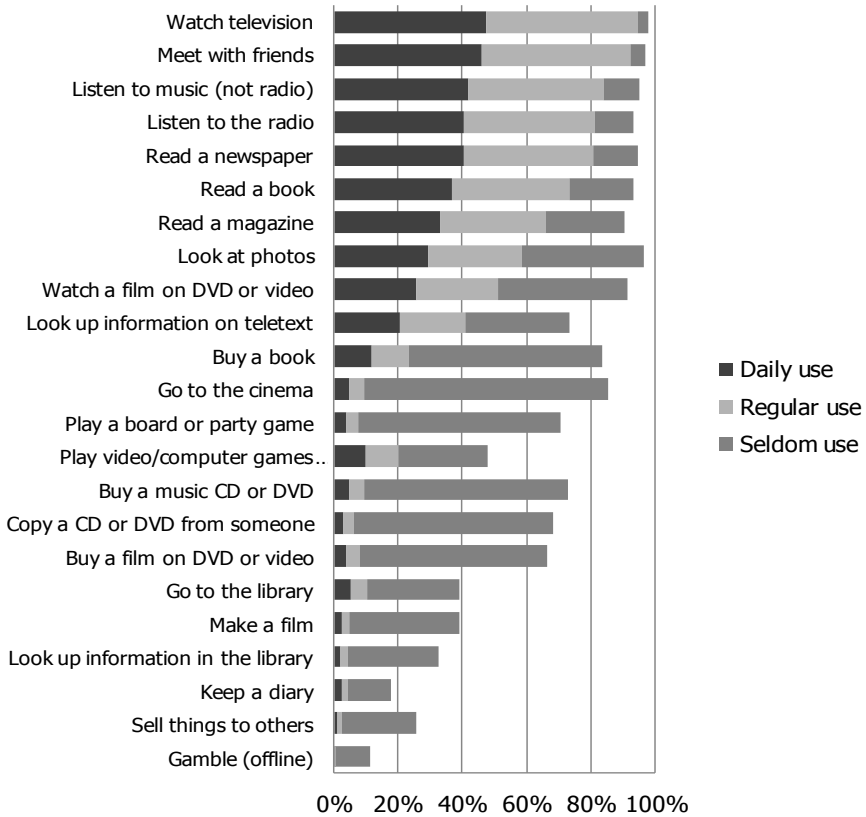


Figure 59 Overview of offline media use (N=598)

Most activities are equally important among the various user groups. Analysis shows that age is the most important differentiating variable. Younger users (between 13-24 years old) more often play games (offline) than older users. In the age group of 13-24 year olds, 25 per cent never plays offline games versus 62 per cent of the users in the oldest age groups (Cramer's $V=.211$, approximate significance=.000). Also, younger users meet with friends (see Figure 60, (Cramer's $V=.262$, approximate significance=.000) and listen to music (besides the radio) more often than older users do (see Figure 61, Cramer's $V=.217$, approximate significance=.000).

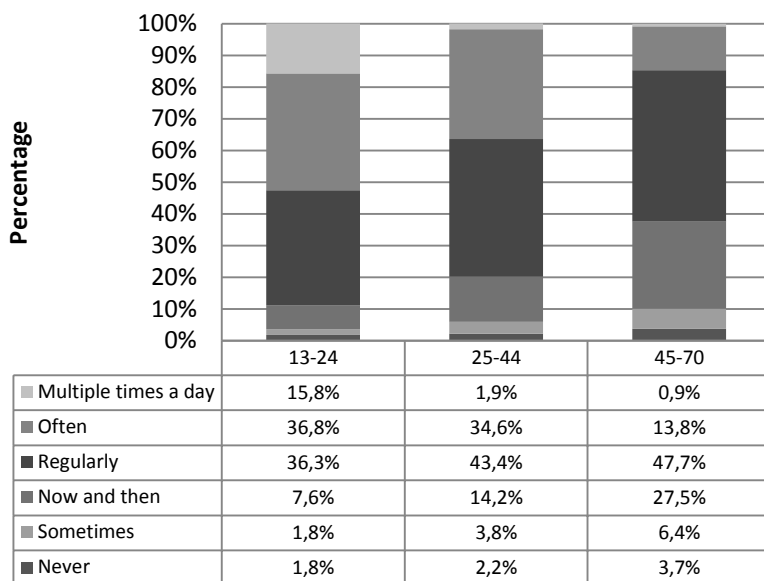


Figure 60 Offline activities and age: meet friends (N=598)

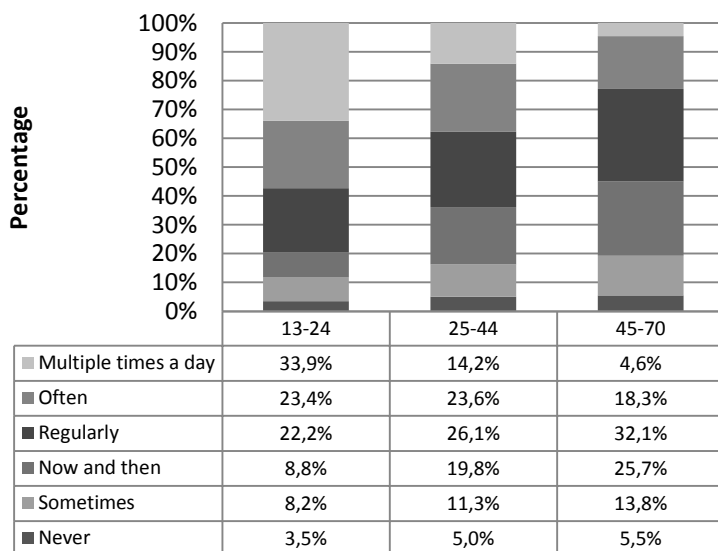


Figure 61 Offline activities and age: listen to music (N=598)

Older users, on the other hand, are more likely to buy books (see Figure 62, Cramer's $V=.220$, approximate significance=.000). There is no significant statistical association between age and reading books as there is between age and buying them. Older or younger users do not differ much in reading books (Cramer's $V=.157$, approximate significance=.001).

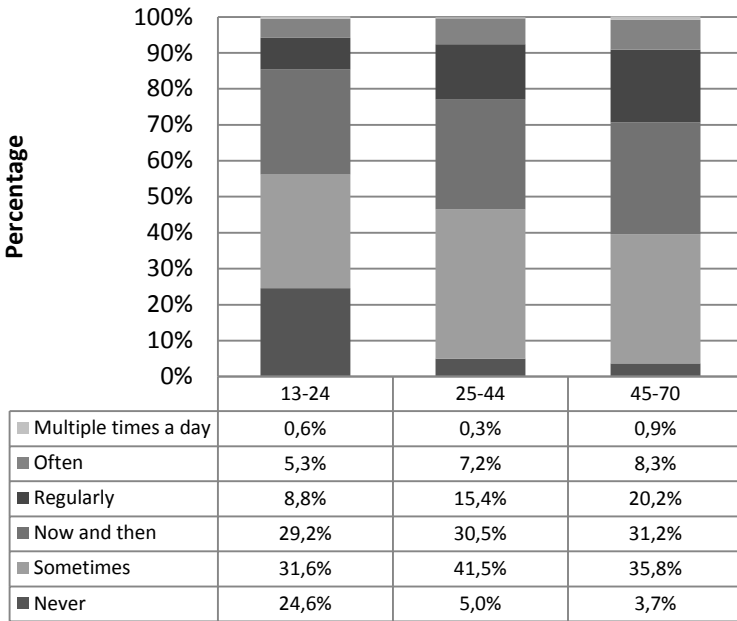


Figure 62 Offline activities and age: buying books (N=598)

Gender differences are only statistically significant in keeping a diary. Women are more likely to engage in this activity than men (see Figure 63, Cramer's $V=.244$ approximate significance=.000). Almost 90 per cent of all men never keep a diary, against 70 per cent of all women.

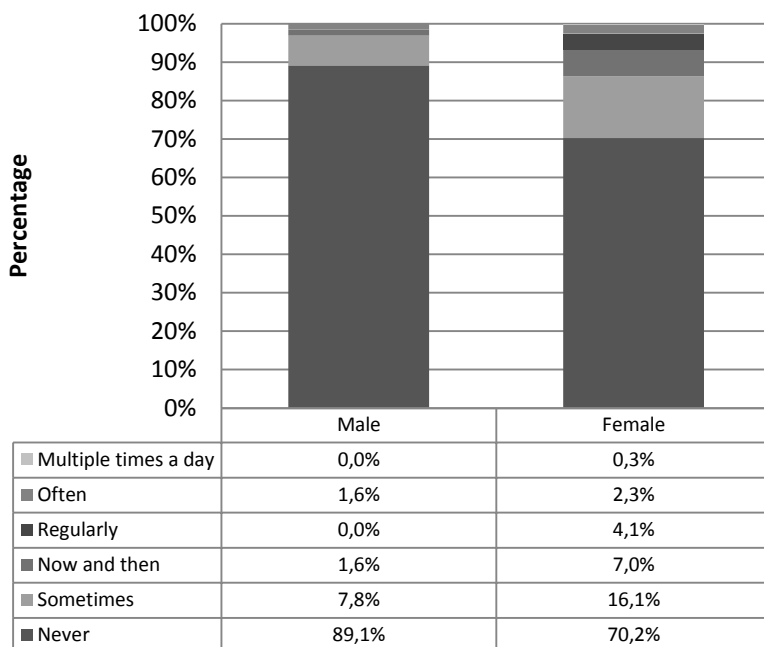


Figure 63 Offline activities and gender: keeping a diary (N=598)

5.3.1 Offline user activities in perspective

The respondents who filled in the survey spend on average 1.5 hour per day online in their spare time. They are adopting technologies and new media rather fast and are skilled above average. This might reflect both the age and education bias as reported in the methodology section of this chapter. The respondents can, furthermore, be classified as active offline media users. But most of all, they are consumers. Analysis of their offline media use shows that they are all engaging in traditional media consuming activities, like watching television or reading a newspaper. In the survey, also questions about more creative activities were posted. The analysis shows that users overall consume more often than engaging in more active and creative activities like making a film or keeping a diary. Overall, the youngest age group is more active than the older age groups.

Although this analysis does not shed light on the motivations of users, it does underline that offline media use is primarily consumption-oriented. Considering the one-way orientation of traditional analogue media, and the high threshold for users to engage in producing activities, this outcome is not surprising. In the discourse on online media, emphasis is put on the two-way direction of communication, the possibility of

interaction and the opportunities for users to create user-generated content and become producers, but the analysis in the next section could paint a different picture. It will shed light on the *online* media use of people. Does the internet provide tools to all users to become producers of content themselves, and do they make use of these tools?

5.4 Online media use

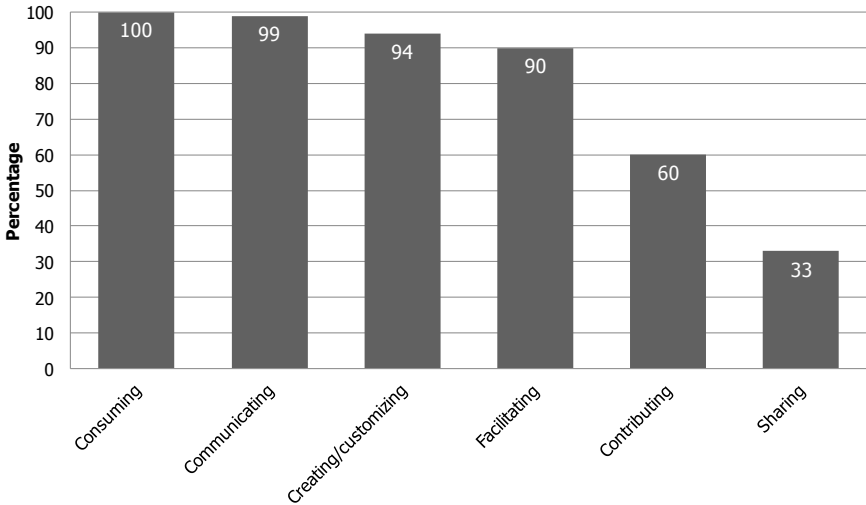


Figure 64 Overview of online user activities (N=598)

Thus, in addition to offline media use, respondents were questioned about their online activities. Figure 64 shows the extent to which users engage in the main user roles defined. The results of the survey show that in general, consuming and communicating (the most traditional user roles) are carried out by almost all users. Creating/customizing and facilitating is done by approximately 90 per cent of the respondents. Less popular roles are contributing (60 per cent) and sharing (approximately thirty per cent).

Comparing age groups, it is evident that consuming and communicating activities are equally taken up by all age groups. Differences are visible in creating, facilitating, contributing and sharing activities. In all of those user activities, the younger age groups are more often active than the oldest age group. Figure 65 shows the varieties between age groups. All three groups consume and communicate for 100 per cent.

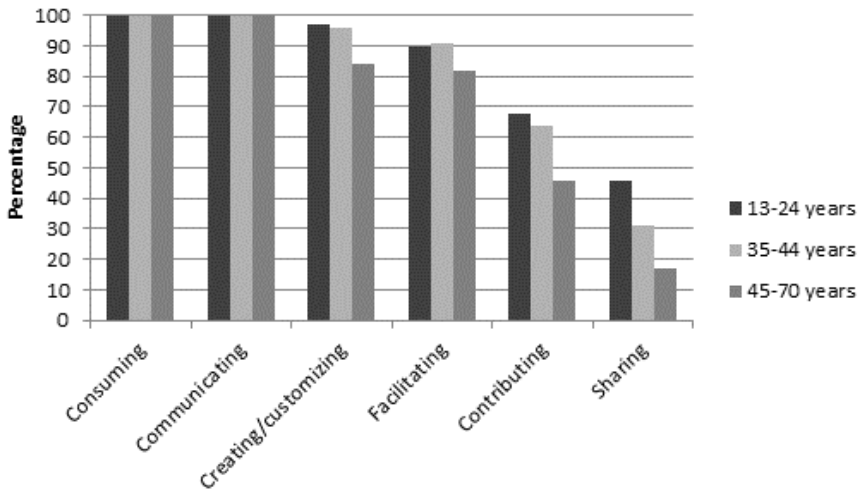


Figure 65 User roles per age group (N=598)

The percentage of users who create is high in all groups, but highest in the youngest age group. Almost 97 per cent of all users aged 13-24 engage in one or more creating activities, compared to 84 per cent of oldest users. And while 68 per cent of the users between 13 and 24 and 64 per cent of the users between 25 and 44 contribute to online media services, less than half of all respondents in the oldest group contribute. The percentage of users who share content is even lower; 17 per cent of the oldest user group share content, compared to 31 per cent of the users between 25 and 44 and almost half of the youngest user group. But in spite of these differences, and at first sight, all users seem to participate very actively online. Below, consumption, creation, contributing/sharing, facilitating and communicating activities are analysed in more detail.

5.4.1 Everybody is a consumer

All users who completed the survey are consumers of media content online (see Figure 66). Of the 26 different consumption roles discussed in the survey, respondents engage on average in 17 consumption activities at least once a year. Users surf the internet, read e-mails and spend time looking for specific content. Many users view photos online and read the news. Approximately 72 per cent of the respondents download music for free at least once a year. And more than one-quarter of the respondents indicate they pay for downloaded music at least once a year.

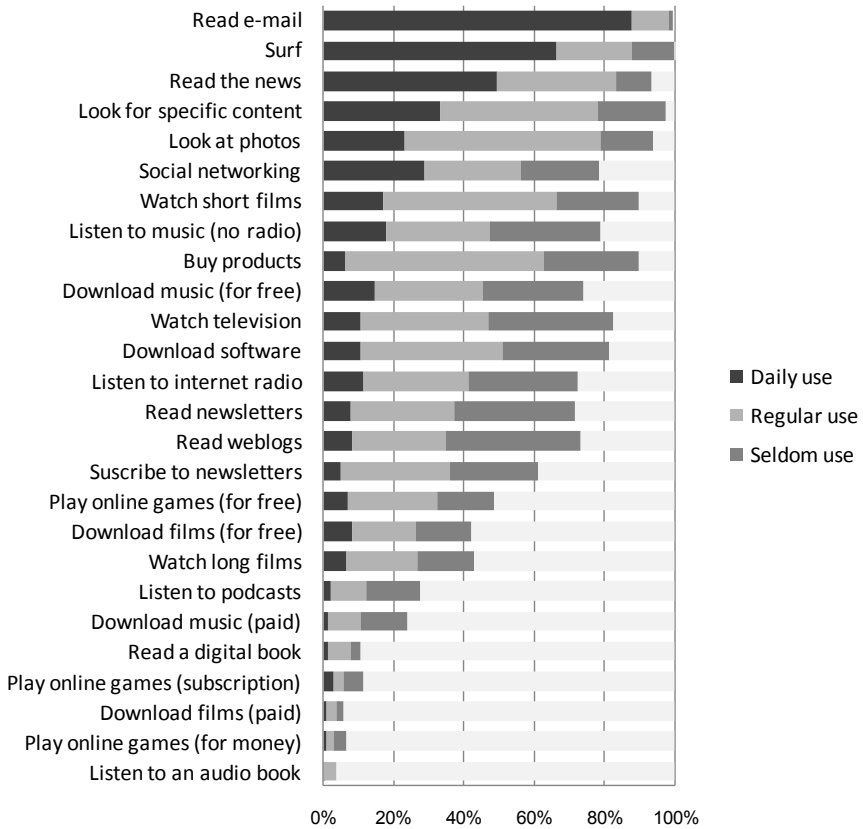


Figure 66 Overview of consumption roles (N=598)

More than 90 per cent of all respondents watch short films online, on YouTube, for example. More than half of all respondents play online games. Slightly more than eighty per cent watch television on their computers. More than three-quarters of all respondents are active on a social networking site and lastly, almost 91 per cent buy products online, books and DVDs, for example. Respondents even engage in lesser-known activities like reading digital books (almost twenty per cent) or listening to podcasts (almost 29 per cent) at least once a year. The least popular activities are downloading music and films through legal (paid) download services, reading digital books, playing online games through a subscription, playing online games for money (e.g. poker) and listening to an audio book. Figure 66 shows a more detailed view of consumption activities by users, arranged according to popularity. Approximately 72 per cent of the respondents download music for free at least once a year. And more

than one-quarter of the respondents indicate they pay for downloaded music at least once a year; 53 per cent of the respondents only download music for free, five per cent only download paid music and twenty per cent do both. Approximately 22 per cent of all respondents never download any music. More than ninety per cent of all respondents watch short films online, for example on YouTube. Watching short films is more popular than watching long, feature films online. But still, almost 43 per cent of the respondents indicate they watch long films on their computers at least once a year. More than half of all respondents play online games. Slightly more than eighty per cent watch television on their computers – this figure is consistent with the question on convergent media use discussed at the beginning of this chapter. More than three-quarters of all respondents are active on social networking sites and lastly, almost 91 per cent buy products online, for example books and DVDs. These results show that consumers are not dead, but consumption is actually very much alive.

When differences between user groups are analysed, age differences are statistically most significant. Younger users are more active in consumption activities in general. They furthermore are more likely to look at photos, watch short and long films, watch television, listen to music (not internet radio), download music, play online games and are more likely to be active on social networks. Particularly the relationship between age and social networking is apparent; 43 per cent of the 13-24 age group claim to be active on a social network multiple times a day, against nine per cent of the 25-44 age group and 0 per cent of the 45-70 age group. Approximately seven per cent of the youngest age group are never active on a social network against 21 per cent of the group 25-44 and 57 per cent of the 45-70 age group (see Figure 67, Cramer's $V=.419$, $\text{approx.sign.}=.000$).

Other moderate statistical relationships can be found between men and women and more and less advanced internet users. Men tend to read online news on a more regular basis and download more films and software, while women are more active on social networking sites. Respondents who classify themselves as being advanced or fast users are more likely to read weblogs and download paid music (for example through iTunes) and software. Downloading software is also connected to the computer skills users assign themselves. More skilled users are likely to download software more often. And if users employ more offline activities, they are also more likely to engage in online consuming activities. Users who engage in one to ten offline media activities are on average taking on 13 consuming activities. Users using 11 to 15 offline media take on approximately 15 consuming activities, users with 16 to 20 offline media activities

engage in 16 activities and the heaviest users, engaging offline in 21 to 25 media activities, have approximately 18 online media consumption activities.

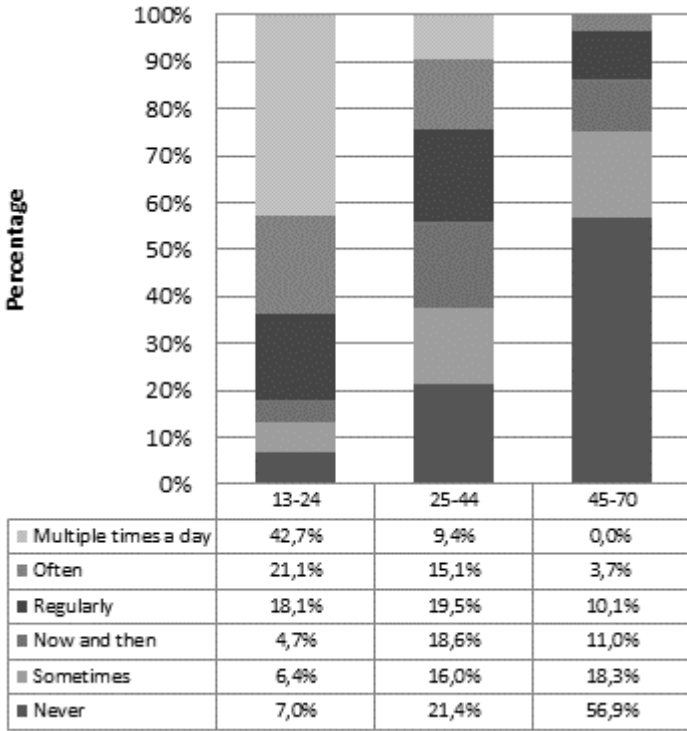


Figure 67 Social networking per age group (N=598)

5.4.2 Communication is key

The internet facilitates communication on an unprecedented level. Practically all internet users who filled in the survey communicate via online media services in one way or another. In the survey, ten communicating roles were presented, of which respondents on average chose five. Sending someone an e-mail is most popular; the average user sends e-mail at least once a day. At least once a month, the average user sends other users a private message through an online media service – for example through a social networking website. Also placing public messages on social networking sites is done on average at least once a month. Sometimes, at least once a year, the average user sends a message to a service, for example with a comment or complaint. Participating in a forum discussion, reacting to a weblog and commenting on a video or photo are carried out at least once a year on average. Writing a comment on a news

message (for example on a newspaper website), writing a review and commenting on something in a video message is less popular. The average user practically never does this. An overview of communicating roles is presented in Figure 68.

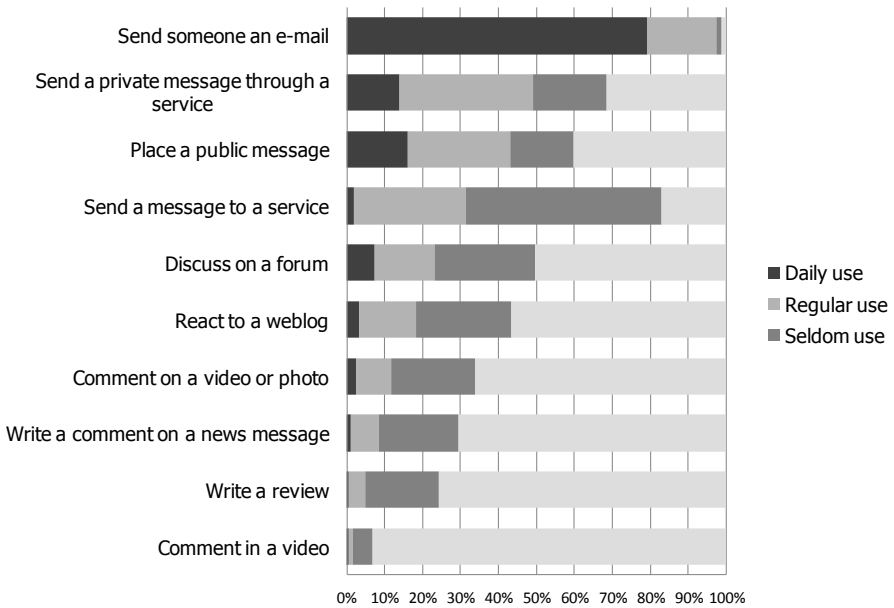


Figure 68 Overview of communicating roles (N=598)

Sending messages, public or private, via e-mail or an online media service is very popular. Almost 100 per cent of all respondents send someone an e-mail at least once a year; 46 per cent do this multiple times a day and 34 sends e-mail at least once a day. Almost seventy per cent of all respondents use a particular service, for example a social networking site, to send a private message to another user. More than twenty per cent do this at least once a month. Almost sixty per cent of all respondents place public messages on websites at least once a year. Communication between users and producers is also facilitated by the internet; 83 per cent of all respondents send a message to a service at least once a year, almost one-quarter at least once a month. Almost half of all respondents participate in discussions on a forum at least once a year, four per cent do so multiple times a day. Almost 44 per cent of all users who completed the survey react at least once a year to a post on a weblog. One third of the respondents react at least once a year on a video or photo, for example on YouTube or Flickr. Almost six per cent do this at least once a month. Almost thirty per cent of all

users write comments on news messages at least once a year. Writing a review is less popular – 24 per cent of the users engage in this activity. Placing a comment in the form of a video message is least popular, few respondents (seven per cent) engage in this activity at least once a year.

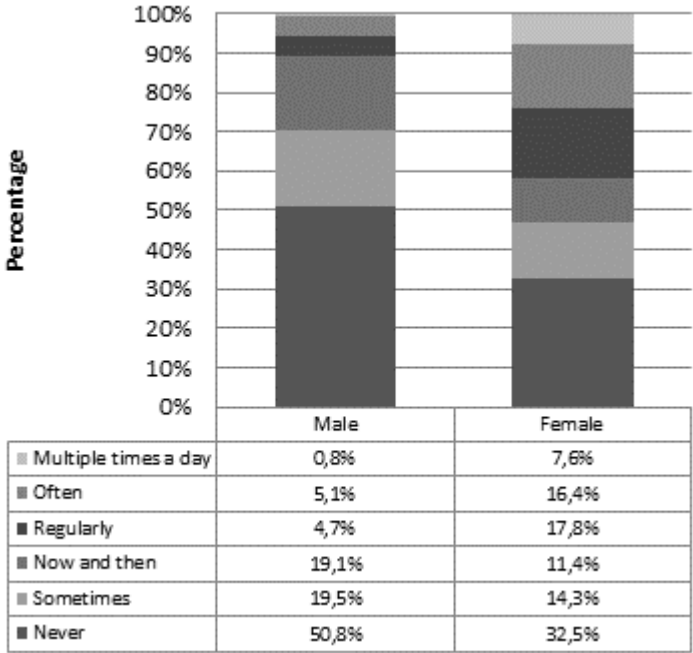


Figure 69 Placing a public message/gender (N=598)

Looking at gender differences in communicating activities, the only moderate statistical relationship can be identified in sending messages through specific services (for example social networking sites). Women are more active in sending public and private messages through these services. Almost 59 per cent of the male users send private messages to others via online services, compared to 77 per cent of female users. Almost twenty per cent of the women send these private messages at least once a day, compared to nine per cent of the male respondents (see Figure 70, Cramer's $V=.260$, approximate significance=.000). Almost 68 per cent of all women place a public message on a website at least once a year, against 49 per cent of all men (see Figure 69, Cramer's $V=.347$, approximate significance=.000).

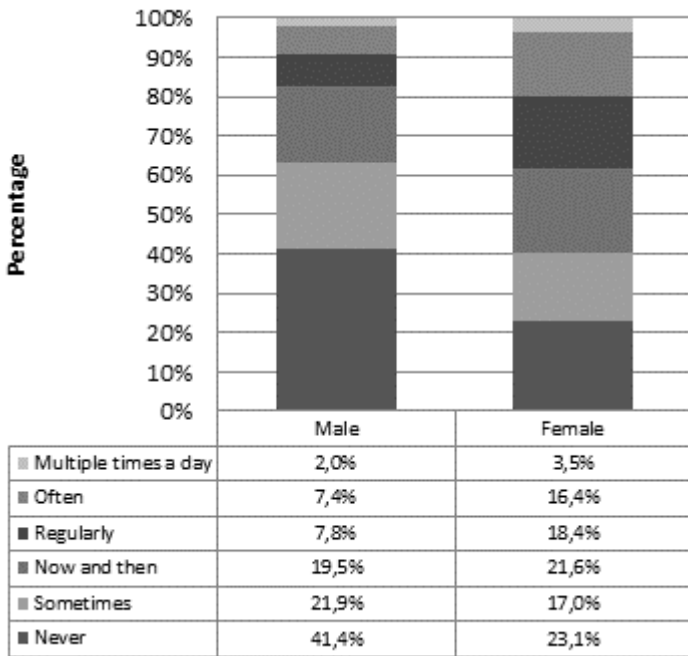


Figure 70 Sending a private message through a service/gender (N=598)

Besides gender, a variety of communicating roles is related to age. And again, younger respondents are more active in communicating online than older respondents (see Figure 71). Especially the differences between the youngest and oldest internet users strike the eye. Users between 13 and 24 are more likely to comment on videos or photos (53 per cent), send each other private messages through for example social networks (84 per cent), place public messages (81 per cent), react to weblogs (63 per cent) and participate in participating in a forum discussion (64 per cent). The user group aged between 25 and 44 and 45+ is more likely to send e-mail messages to other users than the younger users. But the differences between the user groups are very small; 100 and 99 compared to 97 per cent. Thus, in general, younger users are more likely to use the internet for communication purposes.

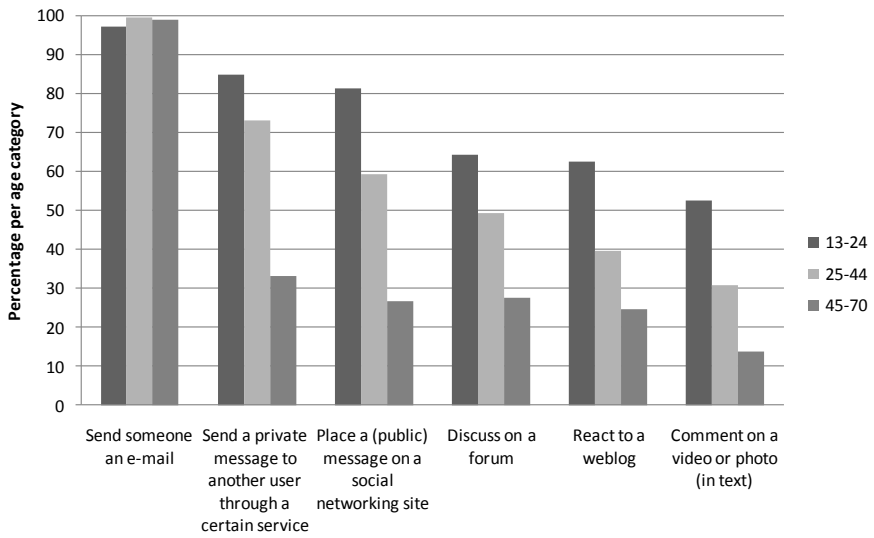


Figure 71 Overview communicating activities relating to age (N=598)

5.4.3 User-created content or customization

After the more traditional consumption and communication roles, users were asked how often they engaged in creating and customizing content online. In the literature review, these activities were labelled under user-generated content, the users as prosumers or the activity as produsage. All scholars so far to study user roles in online services, as discussed in the third chapter, have added this producing role to their typology or classification. It seems to be one of the most distinct roles taken up by users in this age of participation. The survey offered 13 different creating/customizing roles. On average, respondents chose four of them. Remarkably, creating activities are carried out much less frequently than consuming activities, and customizing is more popular than creating (see Figure 72). Thus, in online media services, not all users have become producers of content. The average user at least once a year changes their information on a personal profile, for example on Facebook, MySpace or Hyves (a Dutch networking site). The average user sells things on for example eBay, edits photos, film or music, personalizes services, makes a website, programs software and writes a weblog at least once a year. But the average respondent practically never makes and uploads a short film, writes a news message, mixes existing content, writes a newsletter, records a podcast or makes a game. Figure 72 shows the data on creating activities in more detail.

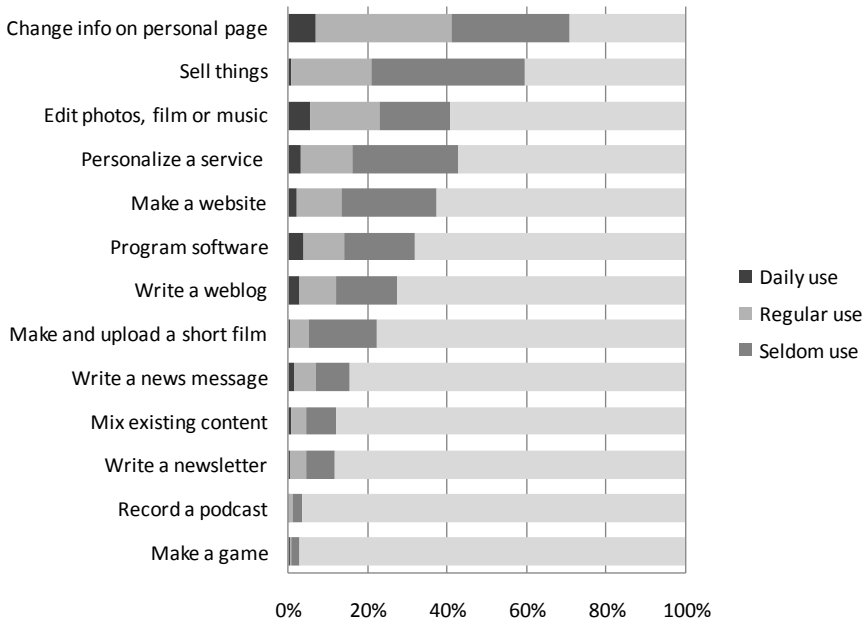


Figure 72 Overview of creating roles (N=598)

Almost 71 per cent of all respondents at least once a year change their profile or personal information on a website. This is consistent with the percentage of users who are active on a social networking site at least once a year (76 per cent). Almost 13 per cent do this at least once a week. Almost 60 per cent sell things via the internet; 39 per cent sell items at least once a year, 14 per cent sell at least once a month. In the Netherlands, most people use the website Marktplaats (Marketplace) to sell things to one another. Approximately 41 per cent edit photo, film or music files on the computer or internet. And five per cent of the respondents engage in editing activities at least once a week. More than 37 per cent of all respondents have their own website and 27 per cent write a weblog at least once a year. Taking these two activities together, it shows that half of all respondents have a weblog, website or both; almost 23 per cent only have a website, 13 per cent only a weblog and 14 per cent have both. Almost one-quarter of the users program software at least once a year. Recording a podcast (four per cent) and making a game (three per cent) are the least popular activities among users.

The results of this analysis show that online, users do take the opportunities of the internet to become active as producing consumers. More than in analogue media, users are enabled by technologies to become active in the sense of creating or customizing content. But there are some limitations when it comes to these activities. Not all users are becoming producers online. Users are especially active with customizing their social networking sites. On these sites, users can create a profile and present themselves. Activities that require more creative effort, like keeping a weblog or recording a podcast, are far less popular among users. The users who engage in these kinds of activities are a minority of the total internet population (at least as far as the group of people who filled in the survey is concerned). Taking into account that the user group of this survey is biased in age and level of education, the creating activities of the internet population as a whole can be expected to be even lower.

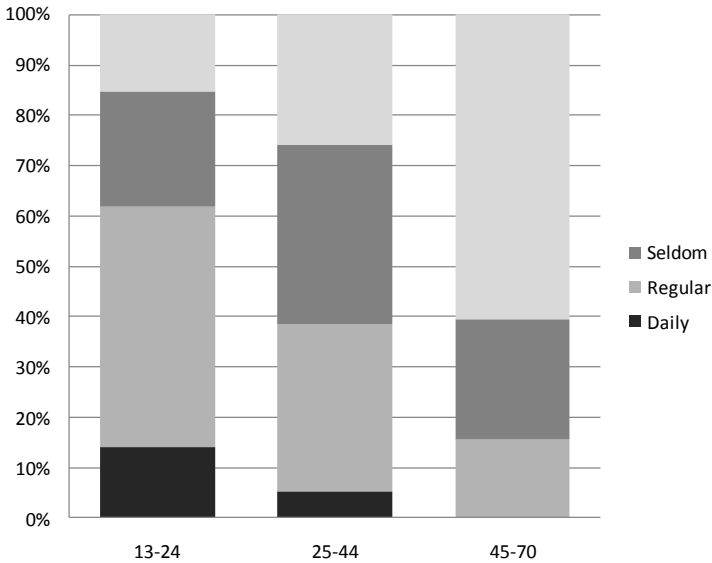


Figure 73 Change information on personal site per age group (N=598)

Differences between user groups are, again, mostly visible between age groups. The youngest age group (13-24 years old) is more likely to engage in editing photos (56 versus 37 versus 25 per cent) and, furthermore, more often changes information on a personal page (see Figure 73). Almost 85 per cent of the respondents between 13 and 24 years old change the information on a personal page like their profiling page on a social networking service, at least once a year. Approximately 14 per cent do this at

least once a day. Approximately 74 per cent of the older age group of internet users between 25 and 44 change information on their personal page at least once a year, 5 per cent do so at least once a day. The oldest age group changes information less frequently; 39 per cent do this at least once a year and nobody changes information at least once a day (see Figure 73, Cramer's $V = .302$ and approximate significance is $.000$).

No statistically relevant differences exist between men and women in online creating activities. Creating and customizing however is to some extent moderately related to the skills internet users have. Users who classify their skills as very good or good are more likely to make their own website or program software. This is not a remarkable result, since these activities are much more specialized and users need more computer skills to perform these tasks. Furthermore, internet users who engage in a lot of consuming activities are more likely to also engage in creating activities. This might suggest that active internet users are more active on all fronts, and might be more likely to perform more creative activities as well. The next section will shed light on the other roles that users might assume in online media services.

5.4.4 Contribute and share

Since contributing and sharing are smaller categories with fewer activities than the others, they will be discussed together. To start with contributing; users were offered two activities (vote and add information to a website). They on average chose 0.8 activities. The average user votes online, for example for their favourite song, picture or contestant at least once a year. But the average user almost never adds information to a website (like Wikipedia). Of the two activities defined in the share category, respondents on average picked 0.5. The average user uploads music at least once a year, but practically does not upload films. Figure 74 shows the overview of these activities in more detail.

Just as creating activities, contributing to an online media service or sharing seems a more specialized activity, taken up by a small minority of users. The activity that is taken up most often is voting, a relatively simple activity that does not require a lot of creative effort. Voting is done by 58 per cent of the users, but not very regular. The largest part of the user group that vote (38 per cent) do this at least once a year. And uploading music is more often carried out than uploading films; 32 per cent upload music at least once a year. Compared to the percentage of users who download music for free, this indicates that uploading and downloading are not always combined. More than twenty per cent of the respondents are adding information to websites, for example Wikipedia. But most often, this is not a regular activity.

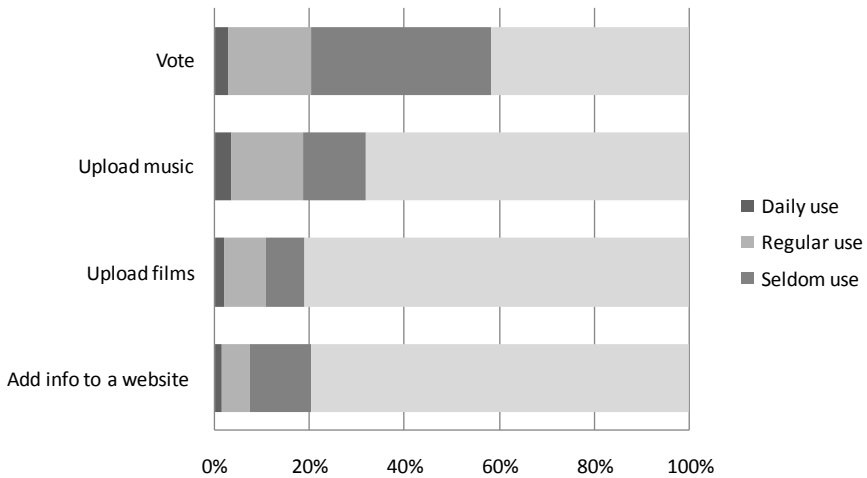


Figure 74 Overview of contributing and sharing roles (N=598)

Within this group of activities, few statistical significant relations exist. Only the youngest users (between 13 and 24) are more likely to upload music than the older age groups (Cramer's $V=.225$, approximate significance=.000). Almost half of all users between 13 and 24 upload music at least once a year. This is much more compared to the 25-44 age group (29 per cent) and the 45-70 age group (17 per cent).

5.4.5 Facilitating in online media services

In addition to consuming, creating, contributing and sharing, computers and internet enable users to facilitate. As was explained in chapter three, facilitating is one of the most important roles for producers, but also users engage in this activity. Approximately ninety per cent of all users facilitate at least once a year. The respondents were offered 12 different facilitating activities, and chose on average 3.7 different ones. The average user sends content to other users through e-mail (for example, photos, music or videos) most often. Users engage in this activity approximately once a month. Recommending content to other users (for example by voting), rating a product or content, sending files to other users through specific services (for example news messages directly from a newspaper website), subscribing to an RSS feed and tagging content are also all carried out by the average respondent, but on a less frequent basis – at least once a year. Least frequently, almost never, the average user manages a website on a certain theme, offers content on a specialized website or weblog, makes use of a service like del.icio.us

to recommend content to others, geotags content or makes an online channel to gather films on a specific theme. Taking these activities into account, again, it can be noted that the activities that require less user effort are more often carried out than less demanding activities. Figure 75 presents an overview of the various facilitating roles, ordered according to importance for the respondents of the survey.

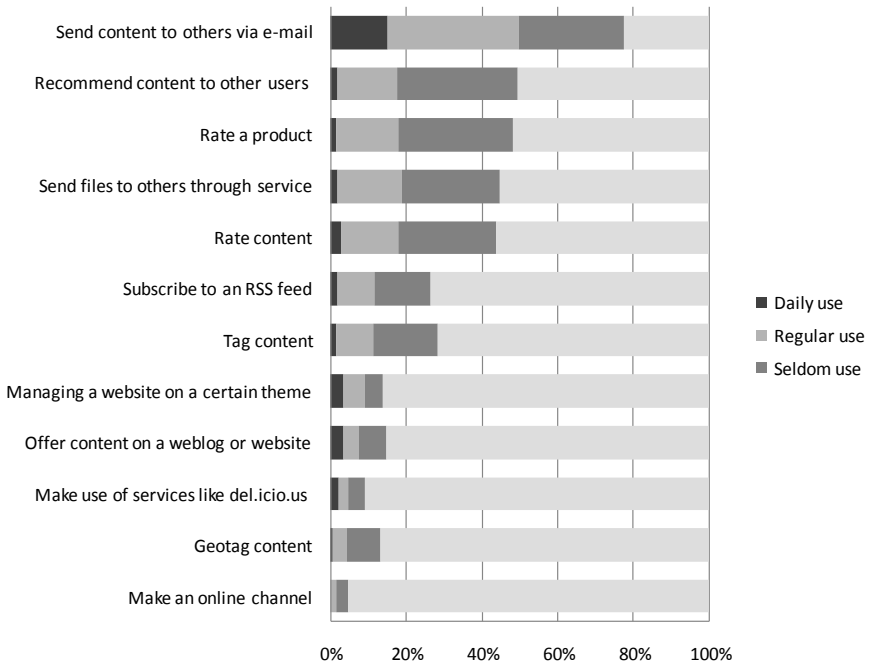


Figure 75 Overview of facilitating roles (N=598)

Geotagging content (adding geographical keywords/data to content) is not a frequent activity of users. But nevertheless, more than 13 per cent of all respondents engage in this activity at least once a year. Tagging content is more popular; 28 per cent do this at least once a year. Analysis of the data shows that users often combine these activities; almost 90 per cent that use geotags also tag content. Rating content and products online is carried out at least once a year by respectively 44 and 48 per cent. Almost half of all users recommend content to other users. And more than three-quarters of all respondents send content to others via email; 28 per cent do this at least once a year, 20 per cent once a month, 15 per cent at least once a week, 11 per cent at least once a day and 4 per cent multiple times a day.

Statistically significant associations between facilitating roles and age differences are practically absent. The younger users rate content slightly more often than older users (Cramer's V=.200, approximate significance=.000). Figure 76 shows that more than half of all users younger than 25 say they rate content online at least once a year. The older age groups rate content less frequently; 45 per cent of 25-44 year old users rate content at least once a year and 23 per cent of users above 45 years old. Other difference between user groups can be found in the activity subscribing to RSS feeds. This activity is more likely to be carried out by men and users who have classified themselves as the advanced or fast user type.

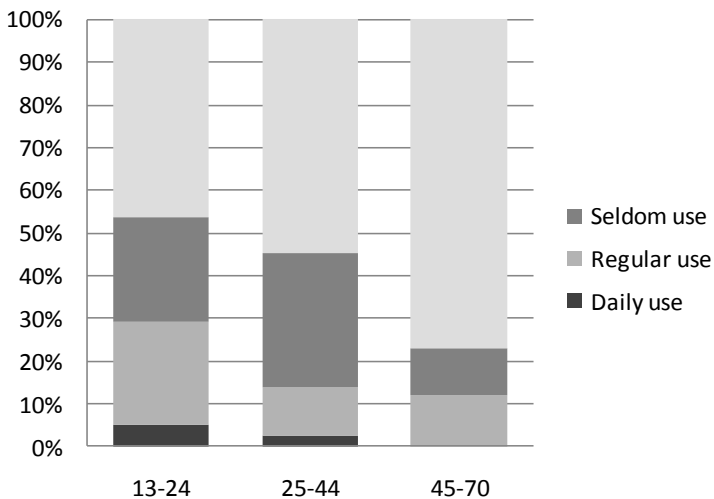


Figure 76 rating content per age category (N=598)

5.4.6 Online user roles in perspective

The analysis of the user survey shows a diversified image of online media use. Overall, users are active and engage in multiple activities. Practically all users take up traditional media consumer roles and communication roles. This strengthens the assumption stated at the beginning of the dissertation that the consumer is not dead. All internet users still are consumers of content. They also communicate with friends, relatives and others directly through media services, via e-mail or on social networking sites. As opposed to analogue communication, public messages are directly visible for other users too. But use possibilities got extended to include creating/customizing, contributing, sharing and facilitating, hence the title of this dissertation: the extended

media consumer. This extended range of activities provides a more detailed understanding of the types of activities users engage in, and the extent to which they engage in them. Instead of providing a typology of internet users by the activity they engage in most, this study shows the variety of user practices. It does not focus on one service in particular, but does shed light on the user activities in online media services as a whole. In some services, users will act as consumers, while in others they might take on the role of the producer. The analysis in the previous chapter showed that most producers offer a platform online with multiple functionalities, so users can easily assume other activities if they please.

The analysis in this chapter shows that, although the internet and media technologies provide users with the tools to become active creators, facilitators and communicators, this does not mean that all internet users also engage in these activities. Similar to domestication studies which showed users have negotiation space in the way they use technologies, also in online media services, producers offer functionalities, but not all of them will be used by their audience and some of them will be differently used than intended. Figure 77 shows a comparison between the possible user roles in online media services as presented in the previous chapter, and actual use practices in online media services as analysed in this chapter. Although the two cannot be compared on a one-on-one level (they both measure different things), it is interesting to notice that, although approximately 80 per cent of online media services offer communication options, almost all media users who filled in the survey engage in communication activities. Also in the case of creating/customizing and facilitating, these activities are (slightly) more popular than those offered by producers. For contributing and sharing functionalities, the opposite is the case. This might indicate that these activities are enabled by producers on a large scale, but are less popular among users.

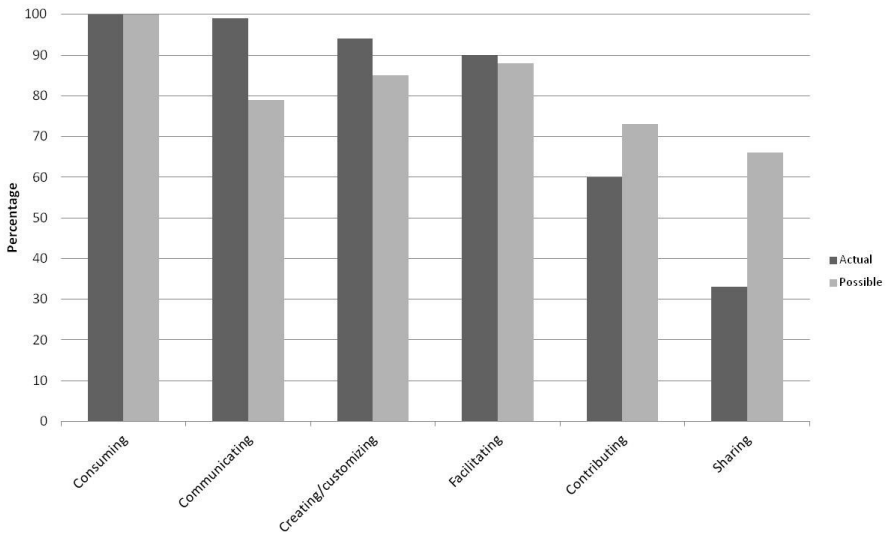


Figure 77 Comparison between possible and actual user roles

The research outcomes show that users perform a large number of roles in online media services. But, as explained in the theoretical chapter, not all user roles are equally active. Some activities require more (creative) effort than others. Consumption, for example, can be classified primarily as a low level activity, while creating content requires a higher level of user involvement. In other words: users have to put in more effort to make a video and post it online than to update a profile on a social networking site. Therefore, to gain a better understanding of the level of user participation, all sub-roles that users can take on are divided into low-level, medium-level and high-level participation. Writing a weblog, making and uploading a video and making a website are classified as high-level user activities. Writing comments on news messages, participating in a discussion on a forum, sending e-mails and uploading music are classified as medium-level user activities. Low-level user activities are consumption activities like reading, watching, buying and downloading. Voting, tagging and rating are also included in this category. For each category, the average percentage of users who assume these activities at least once a year is calculated.⁵⁰

⁵⁰ For every activity, the percentage of users engaging in this activity is calculated. These percentages are added up, and divided by the number of activities present in the low, medium or high category. This average percentage is taken as an indication for the average level of user participation.

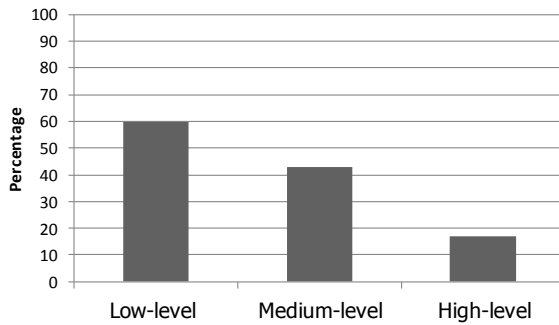


Figure 78 Average level of user participation (N=598)

Figure 78 shows the average percentage for low, medium and high-level user activities. This figure is an indication that there are more users that take up low-level activities (that require less effort) than high-level activities. The average level of user participation is an indication of the average percentage of users taking up one of these activities at least once a year in this category. The figure shows that the average level of user participation declines when the activity requires more effort from the users; on average 60 per cent of the users of online media services engage in low-level activities, 43 per cent in medium-level activities and 17 per cent in high-level activities. Thus, generally it can be stated that users have a tendency towards 'less active' user roles. Customization is more often taken up than creation (while services offer users more creation possibilities) and users send e-mail more often than actively contributing to a forum discussion. Thus, although internet positivists herald the opportunities of the internet for all people to become producers of content, the research results in this section suggest that not all users engage in high level user activities that require (creative) effort.

This part of the analysis has also shown that the audience indeed is not a homogeneous group of people. As research strands such as audience studies and innovation studies have indicated, various user groups use technologies differently. The user survey has shown that the most important differences in online activities are visible in age categories. Younger users engage in more activities and also activities that require more effort than older users of online media services. This substantiates the existence of a Net generation that grew up with media technologies and has integrated these into their lives to a greater extent than people who did not grow up with digital technologies. But still, also in this highly active group, some users do not participate.

5.5 Offline versus online media use

Another interesting question is whether users employ new use patterns online, or whether their online activities reflect their offline behaviour. Statistical analysis shows some (weak) statistical relations between online and offline media use. This indicates that offline media use does influence online use (for example people who read the paper version of a newspaper will also more often read a digital newspaper), but not to a very large extent. Below, all five media entertainment domains will be reviewed. This analysis is interesting in the light of the discussion about digital products cannibalizing on analogue media products.

5.5.1 Music; listening, downloading and buying

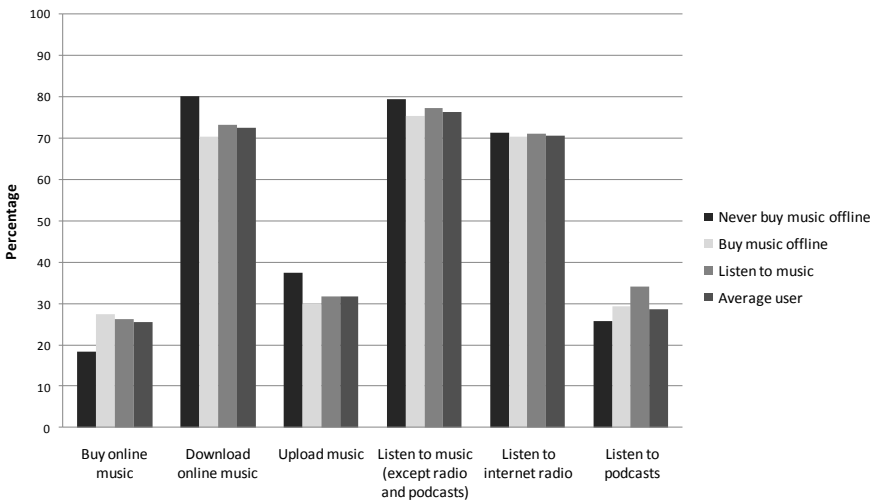


Figure 79 Offline versus online music use (N=598)

Listening to music is a very popular activity among respondents. More than 95 per cent of the respondents listen to music (not radio) at least once a year and more than 77 per cent buy music in a store at least once a year. This indicates that a minority of users (23 per cent) never buys music offline. These three specific user groups (listeners to music, offline music buyers and users who never buy music offline) are compared to the average online music use (see Figure 79).

The analysis shows that users who never buy music offline, also tend to buy less music from paid downloading services online than average (18 versus 25 per cent). Users who buy and listen to music offline, tend to buy slightly more music from paid online

services. And users who never buy music offline, tend to download online music for free more often; probably this is related to age – younger respondents tend to buy less offline and download more music for free online. This group as a consequence also uploads music more often. Listening to music and listening to internet radio is practically equal between the different groups and users who listen to music offline listen to podcasts more often than average (34 to 29 per cent).

5.5.2 Film and video; offline versus online use

Almost 73 per cent of all respondents say they buy films on DVD or video at least once a year, 96 per cent watch a film on DVD or video at least once a year. Approximately 91 per cent go to the cinema at least once a year and 47 per cent indicate they make a video at least once a year. Do these activities have a relationship with online film and video use?

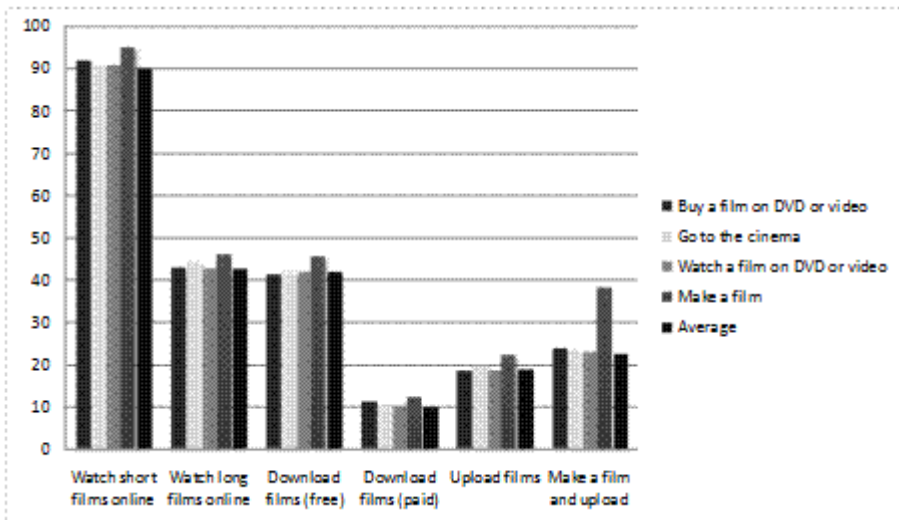


Figure 80 Offline versus online film use (N=598)

The overview of online film and video use (Figure 80) shows that the various user groups do not differ significantly compared to their average film and video use. Nevertheless, one can see a slight difference between users who make videos in their spare time offline and watching films online, downloading films and particularly making and uploading films. As to be expected, users who make videos offline are more likely to upload them to the internet than users who do not make films offline.

5.5.3 Broadcasting; listening and watching

Broadcasting consists of radio and television. Almost 93 per cent of the respondents listen to the radio offline. A slightly higher percentage of these users listen to online radio compared to the average user (73 versus 71 per cent). Furthermore, a slightly higher per cent of radio listeners (thirty per cent) listen to podcasts than average (29 per cent). But these figures are not statistically associated, and can be based on coincidence.

Television is a widely used domestic medium. Approximately 97 per cent of the respondents say they watch television at least once a year. On the computer, many respondents also watch television shows. Approximately 81 per cent say they watch television online at least once a year. Of these users, 17 per cent watch offline television only, two per cent only watch television online, two per cent do not watch and 80 per cent indicate they watch both offline as online television.

5.5.4 Press; buying and reading

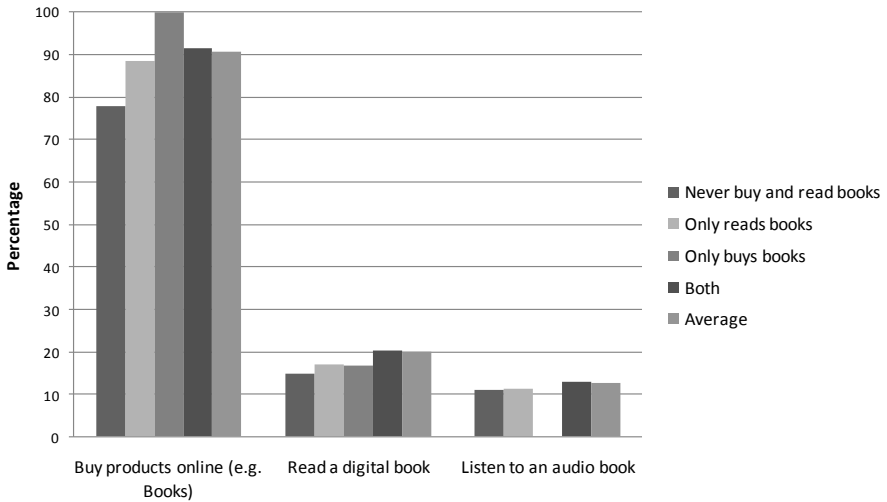


Figure 81 Offline versus online book use (N=598)

Books are bought by almost ninety per cent of the respondents. Almost 95 per cent indicate they read books. Less than five per cent of the respondents never buy or read books, six per cent only read books but never buy them and, interestingly, one per cent only buy books, but never read them. Figure 81 shows offline versus online book use.

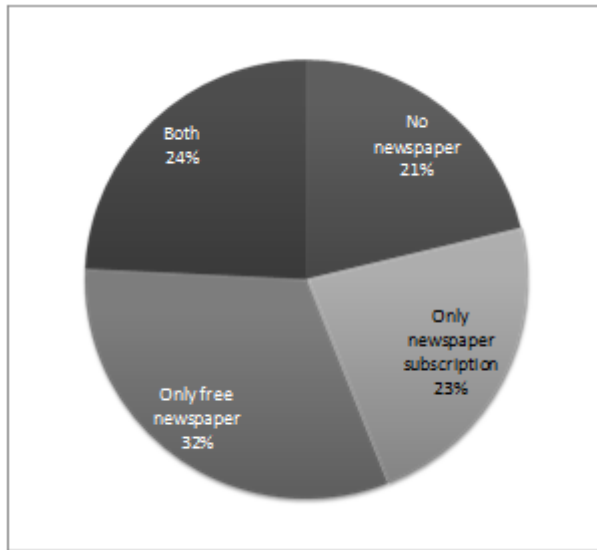


Figure 82 Offline newspaper use (N=598)

As can be seen, users who buy books also buy books online more often than average, while users who never buy books in the store also buy fewer books. They also read slightly less digital books than average. The group that only buys books but never reads them, also never listens to an audio book.

Slightly more than twenty per cent of the respondents never read a newspaper, 23 per cent only have a newspaper subscription, 32 per cent only read free newspapers and 24 per cent do both (see Figure 82). In Figure 83 these user groups are compared on their online news use and the average respondents online news use. Practically all user groups read the news online, but users who only read free newspapers (provided, for example, on railway stations) are more likely to read online news, newsletters and weblogs. Users who do not read any newspapers, tend to read newsletters less frequently than average (58 versus 71 per cent). Users reading both free newspapers and subscription newspapers on the other hand tend to read newsletters more often (82 per cent). The same holds true for reading weblogs. Interestingly, users who never read any newspapers offline tend to write weblogs more often than average (36 per cent versus 27 per cent). Writing newsletters and news messages is done less frequently than average by users who only read free newspapers.

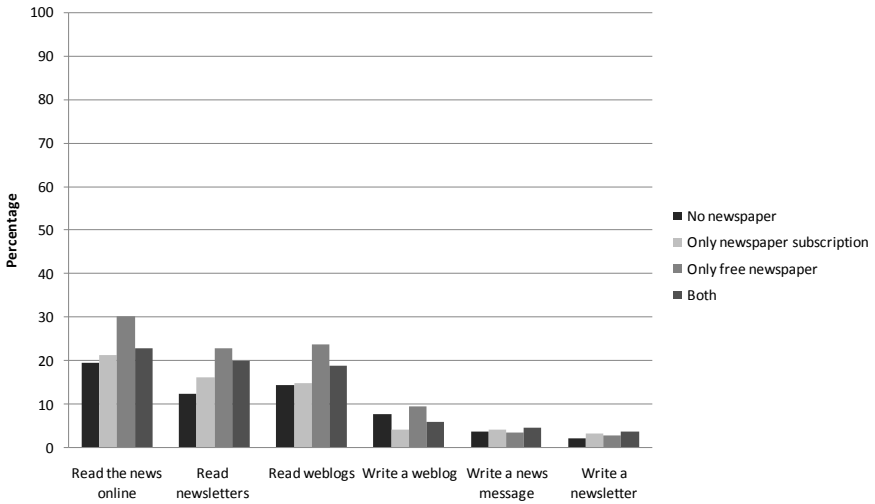


Figure 83 Offline versus online news use (N=598)

5.5.5 Games; offline and online games

More than half of all respondents (59 per cent) play computer games offline (like patience on a computer, or a racing game without an online connection). Almost 80 per cent (79 per cent) play board games at least once a year, while 14 per cent gamble. Almost 100 per cent (98 per cent) say they meet with friends at least once a year.

Figure 84 compares offline with online game and social community activities of users. As the figure shows, users who play computer games offline (71 per cent) and users who gamble (67 per cent) tend to play online games more than average (51 per cent). Users who gamble (for example by going to a casino) also tend to play more online games for money than average – 22 per cent play games on a subscription basis against 8 per cent on average. And 21 per cent play online games (e.g. poker games) for money online versus five per cent of users on average. Users who play computer games and gamble are slightly more active on social networking sites than average. Making a game is not very popular. On average, three per cent of the respondents engage in this activity. Users who play computer games engage in this activity slightly more; four per cent make a game at least once a year.

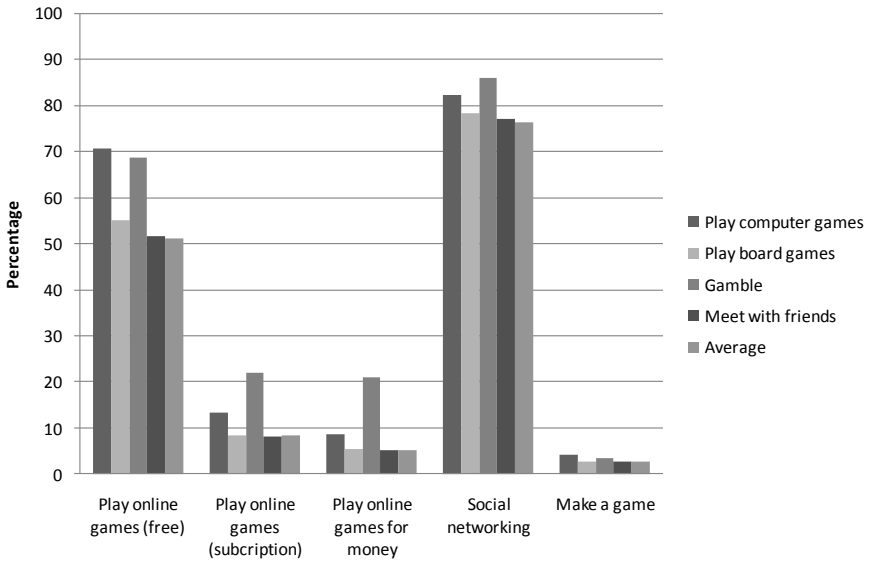


Figure 84 Offline versus online game activities (N=598)

5.5.6 Offline and online media use in perspective

Although age is the most influential aspect on the way people use online media, this chapter also shows that offline media use plays a (small) part in explaining the extent to which users engage in online activities in media services. In general, it can be stated that the more users engage in offline media activities, the more likely it is that they also engage in many online activities. Within each media domain, the relationship between online and offline media use is analysed. This analysis shows that offline media use slightly influences online media use; users who buy music albums offline, tend to buy online music more often than users who do not buy music albums offline; users who engage in offline gaming (e.g. casino's) are also more often engaged in online gaming sites (like poker sites for money). But at the same time, the analysis provides evidence to show that users also engage in a lot more online activities.

Although this study does not shed light on the motivations for users to engage in certain activities, the outcomes of this section of the analysis indicate that online behaviour does not necessarily cannibalizes offline behaviour. It also indicates that online, users will engage in activities that they are more familiar with or already interested in. Research conducted by Rogers (1995) on the reasons for adopting an innovation might provide an explanation for this. According to Rogers, people are more willing to adopt

an innovation when it is similar to something they already know. Thus, people who are active in writing offline might also be more interested in writing a weblog online.

The last part of this analysis will shed light on some financial and technical aspects of user activities online, and opinion of users on online user/producer relations.

5.6 Financial and technical arrangements

In addition to an extended overview of offline and online user roles, the survey also pays attention to financial arrangements and technical features of online media services. Users were asked to indicate whether they use these technical features, or if they pay for online media services.

5.6.1 Financial arrangements; to pay and to get paid

Most producers of internet services in the media entertainment domain place advertisements on their website to earn an income (see previous chapter). Do users click on advertisements displayed on websites? Of all respondents, 67 per cent indicate they click on advertisements. One third never click on advertisements, 49 per cent sometimes, 6 per cent regularly, 2 per cent often and 10 per cent most often click on advertisements (like banners) by mistake (see Figure 85).

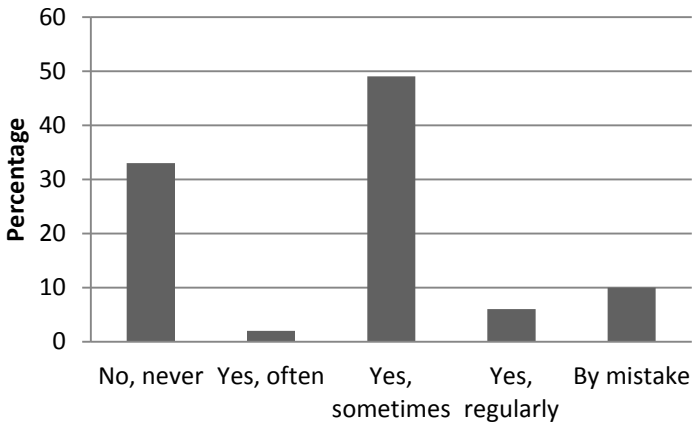


Figure 85 Clicking on advertisements (N=598)

Approximately 83 per cent of the users buy media products online, for example books, music and films, 22 per cent do so regularly. In discourse surrounding online media use, it is often said that people are used to getting things for free online. Many media

companies struggle to find a working revenue model online. More than one-quarter (26 per cent) pay for an internet service. This does not include the internet subscription they pay to their service provider. Think for example about an account they might have on a news service, music websites such as Spotify or an online game. Four per cent pay for an online service regularly. The previous chapter showed that approximately 16 per cent of the services paid their users for adding content. But the number of users who get paid for their online activities is low. Only four per cent indicate they have ever been paid for adding content to the internet, for example news messages, photos or video. And three per cent are paid by business parties (e.g. Google) for placing advertisements online. Thus, the analysis in the previous chapter showed that many media services that fall under the web 2.0 description, offer a platform for users to upload their own content. The initiators of these services do not engage in content production themselves. They rely on their users to provide the content and interaction. And they expect their users to do this for other reasons than monetary rewards.

5.6.2 Technical arrangements and openness of services

As the previous chapter showed, in online media services, few users are enabled to play a direct technical role. Most of the time, the technical features are "black boxed" and shielded off from regular internet users. Although 32 per cent of the respondents state they program software at least once a year, it is unlikely that users will engage in programming activities while using media services. In the questionnaire it was asked whether the respondents used open source software and P2P file-sharing software. Almost 60 per cent (58 per cent) indicate they sometimes use open source software like Linux or Firefox. And almost 51 per cent indicate they use file-sharing software. But practically no user does this regularly. This provides an indication that services are not open in the sense that users can modify them, but most users do not have the ambition to do so anyway.

Some moderate statistical relations exist between use of technologies and gender. Men indicate they use P2P software more often (59 versus 37 per cent) (see Figure 86, Cramer's $V=.269$, approx.sign.=.000). Almost 10 per cent of the women indicate they have no idea what P2P software is, against one per cent of all males. Men are also more likely to use Open Source Software than women (71 versus 40 per cent, see Figure 87, Cramer's $V=.319$, sign. approx.=.000).

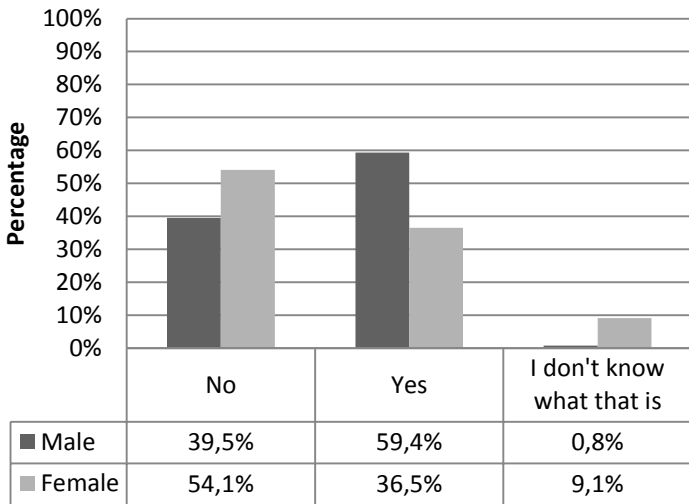


Figure 86 Gender and the use of P2P (N=598)

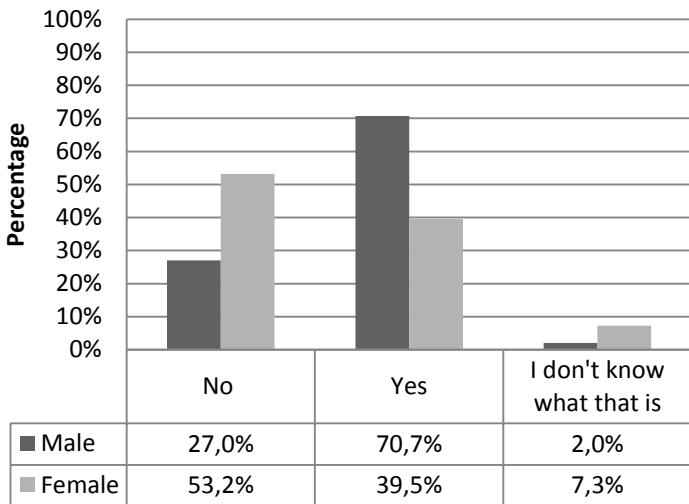


Figure 87 Gender and the use of Open Source Software (N=598)

5.7 Users' opinions on user roles and user/producer relations

How do users qualify their own online activities and roles in online media services? Besides a large variety of possible user roles, respondents were asked to give their opinion on several statements about changed user roles and shifting user/producer relations. These statements can be put in the context of the discourse on user roles online as presented in the first and third chapters.

The analysis in this chapter shows that, although most users above all consume online content, they to a large extent also engage in other activities. But if users are asked to react to the statement *On the internet, I am not just a consumer, I actively contribute to producing, distributing and facilitating content (such as music, films and photos)*, more than half of the users (58 per cent) do not agree. Approximately 28 per cent are neutral and only 15 per cent agree with this statement (this number relates to the average level of user participation) (see Figure 88).

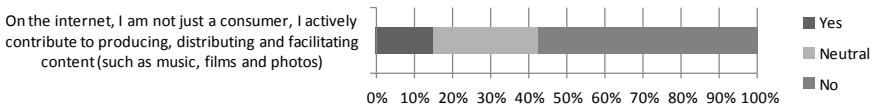


Figure 88 Statement 1 (N=598)

Users who have also indicated that their computer skills are high, agree with this statement more often than less skilled users (24 per cent agree). Although the majority do not think they are active contributors to the online domain, 37 per cent think it is easy to make/create and upload things to the internet. A similar percentage are neutral about this statement and a quarter of all respondents disagree. Men (50 per cent) and skilled internet users (60 per cent) are more often positive about this statement than women and less skilled users.

Another statement concerns the quality of user-generated content. Only 12 per cent of the respondents think user-created content is just as good as professionally-created content. Almost half of all respondents (47 per cent) are neutral on this statement and 42 per cent do not agree (see Figure 89).

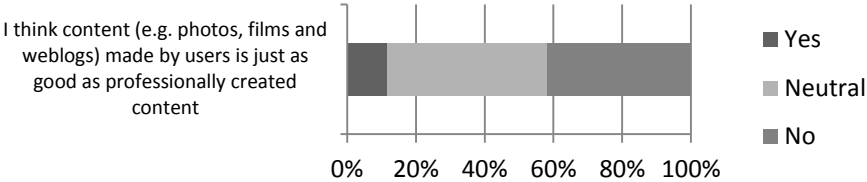


Figure 89 Statement 2 (N=598)

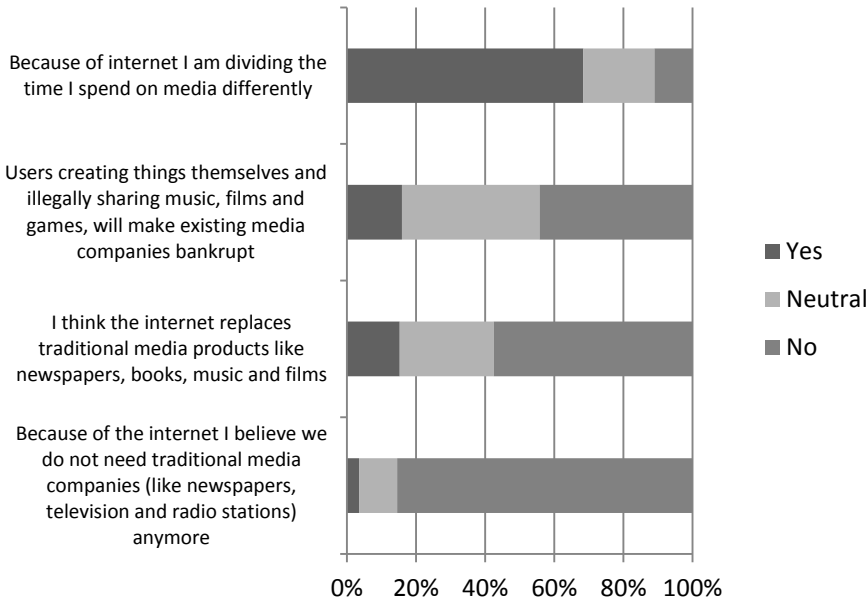


Figure 90 Statement 3, 4, 5 and 6 (N=598)

Asked whether the internet replaces traditional media products like newspapers, books, music and films, the majority of 58 per cent of all users disagree – only 15 per cent agree with this statement (see Figure 90). More than 85 per cent of the respondents believe that traditional media companies (like newspapers, television and radio stations) are still needed. Approximately 16 per cent of the respondents to the survey believe that users creating things themselves and illegally sharing music, films and games, will cause existing media companies to go bankrupt. Women are more inclined to agree to this statement (women 20 per cent versus men 11 per cent). In general, the internet is much more conceived like a supplement to traditional media; more than 85 per cent of the respondents agree. But, according to the users, internet does affect the

way they use the different media. A majority of 68 per cent of all users say they divide their media time differently because of the internet. This is consistent with the fact that the time people spend on media has remained practically the same in the past 25 years, but the range of media has expanded.

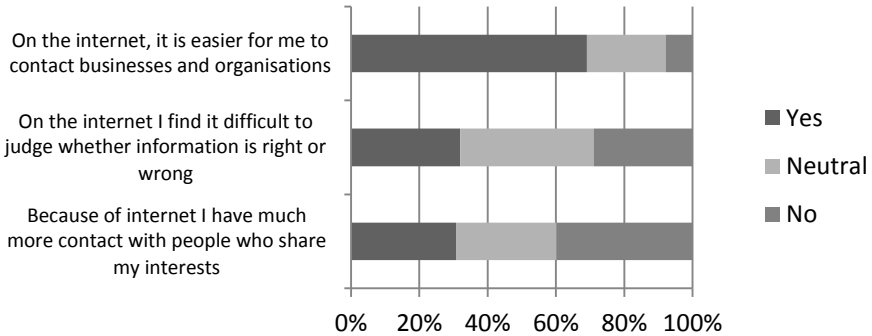


Figure 91 Statement 7, 8 and 9 (N=598)

How does the internet affect the users? Does the internet enable users to have much more contact with people that share their interests? Users are fairly divided on this statement; 40 per cent disagree, 29 per cent have a neutral stance towards this statement and 31 per cent agree (see Figure 91). Users are just as divided on the statement *On the internet I find it difficult to judge whether information is right or wrong*. Approximately 32 per cent agree, 39 per cent are neutral and 29 per cent state they do not find it difficult to judge what is true or false. The internet lowers the threshold for many users to communicate with producers. Approximately 69 per cent of all respondents agree to the statement that *on the internet, it is easier for me to contact businesses and organizations*; only 8 per cent disagree with this statement.

5.8 Conclusion: the extended consumer

In the quote at the beginning of this dissertation, Shirky claims that online, all users have become media outlets and consumers have disappeared altogether. Also in academic discourse on developments in online media, the producing capabilities of the audience are often highlighted. Especially at the beginning of the web 2.0 development, users were assigned agency or power to create their own content, and the monopoly position of large media corporation seemed to be broken. But the research results presented in this chapter nuance this. Online, users can still be classified as consumers of content. They read newspaper articles on websites, watch television shows on their

computer screens, listen to music and play online games – on the internet, every user is, most of all, a consumer. Thus, the fact that consumers are enabled to take on other roles online can be seen as a complementary development rather than a complete turnaround.

Consuming and communicating activities are most popular online. A full 100 per cent of the users who completed the survey consume online media and communicate through the internet with other users in one way or another, at least once a year. And they consume content on a regular basis. Compared to traditional consuming roles, the variety of sub roles has extended significantly. But internet users also engage in a large variety of other activities; 98 per cent of the internet users are taking on a role besides consuming content or communicating with other users. Based on the analysis, it is safe to say that computers and the internet have indeed lowered the threshold for a very large group of users to assume a variety of roles in the media domain on a large scale. Contrary to primarily acting as consumers, users create, facilitate, share and communicate.

The theoretical chapter shows that in academia, active users have often been conceptualized as producers of content (e.g. prosumers) or as help for designers to create products (lead-users, co-creation). As already indicated in the previous chapter and the theoretical chapter, creating content seems to be the most discussed and studied new user role. All classifications of user roles (e.g. Shao, 2008; Schols et al., 2011; Van den Beemt, 2010) take production of content into account as an important activity. Also the analysis in this chapter has shown that a large percentage of users are creating/producing or customizing online, although less frequently than consuming activities. The most popular activity is changing information on personal pages (for example on a social network). More creative activities like writing a weblog, making a website or short films are carried out by fewer users and much less frequent.

But this chapter has also shown that besides focusing on the user as either a producer (prosumer) or a creator of content, the active-user concept can be broadened to include all kinds of (everyday) activities. The central outcome of this dissertation is thus that users are *extended consumers*. Internet respondents primarily contribute to online services by voting for specific content. Sharing content by uploading films and music is less popular among internet users. Facilitating activities, for example sending content to other users via e-mail and other services or rating content and products, are carried out at least once a year by almost 90 per cent of the respondents. Respondents that communicate, do so primarily by sending each other messages – through e-mail,

directly to the producer of a service or product or by placing a message on a social networking site. More interactive ways of communicating like engaging in a discussion on a forum, reacting to a weblog or writing a review are carried out less frequently.



Figure 92 Tag cloud all user roles

Overall, it seems that users are very active online. The more active users are with media, the more offline media activities they perform, and the more minutes they spend online, the more active they tend to be in the online domain.

But the findings also suggest that the level of ‘active’ user participation can be nuanced. Low-level and more traditional participatory activities, such as consuming content and communicating, are among the most popular user roles. The variety within these roles is large and users often engage in these activities. On average, far fewer users engage in truly creative and high-level user participation, like making websites and uploading self-made videos, than users who engage in easy and low-level activities. Thus, generally, users have a tendency towards ‘less active’ user roles. Customization is more often done than creation (while services offer users more creation possibilities) and sending e-mail is more often done than participating in a discussion on a forum. Figure 92 also shows the popularity of less-active user roles. It displays a tag cloud of the extent to which users in the online domain take up specific media activities. The larger the word, the more often it is carried out by the respondents. Activities like reading and sending e-mail, looking at photos, reading news, surfing and looking for specific content are often

carried out, while more creative/active activities like making a website or editing photos or participating in a discussion on a forum are smaller, and thus, less popular.

These outcomes are in line with the offline media activities of users. Both in the offline and the online domain, users tend to engage in less active activities more often, while creative or more active activities are carried out by a small part of the public.

5.8.1 Age differences

The research results indicate that, except for a small number of activities (like engaging in social communities or more technical activities like programming and downloading software), gender is not an important variable in explaining the differences in internet use. The differences between the age groups are more evident. Internet use seems to be much more dependent on generational than on gender differences. Of the user groups, six per cent of the oldest users do not engage in any activities besides consuming and communicating. This is a significantly higher percentage than was obtained for the user group between 25 and 44 (one per cent) and the youngest group between 13 and 24 (two per cent).

The so-called Net-generation, or the digital natives (Prensky, 2001) are behaving differently than older users. They (on average) tend to be online longer each day and engage in more activities than users in older age groups. All three groups consume and communicate for 100 per cent. But the younger age groups for example communicate on more levels than older users, who primarily send e-mails. They engage in more new activities, like rating content and uploading music. They furthermore are significantly more active on social networking sites.

The percentage of users who create is high in all groups, but highest in the youngest age group. Almost 97 per cent of all users aged 13-24 engage in one or more creating activities, compared to 96 per cent of the users between 25 and 44 and 84 per cent of the users between 45 and 70 (which still is a very high percentage). And while 68 per cent of the users between 13 and 24 and 64 per cent of the users between 25 and 44 contribute to online media services, fewer than half of all respondents (46 per cent) between 45 and 70 contribute. The percentage of users sharing content is even lower; 17 per cent of the oldest user group share content, compared to 31 per cent of the users between 25 and 44 and 46 per cent of the youngest user group. The 25-44 age group is most active in facilitating themselves and other users – 91 per cent do this, compared to 90 per cent of the youngest and 82 per cent of the oldest users.

But this chapter has also shown that older age groups are also taking on many active online roles. Although they might be online less frequently and engage in fewer activities, they still engage in a large variety of user roles.

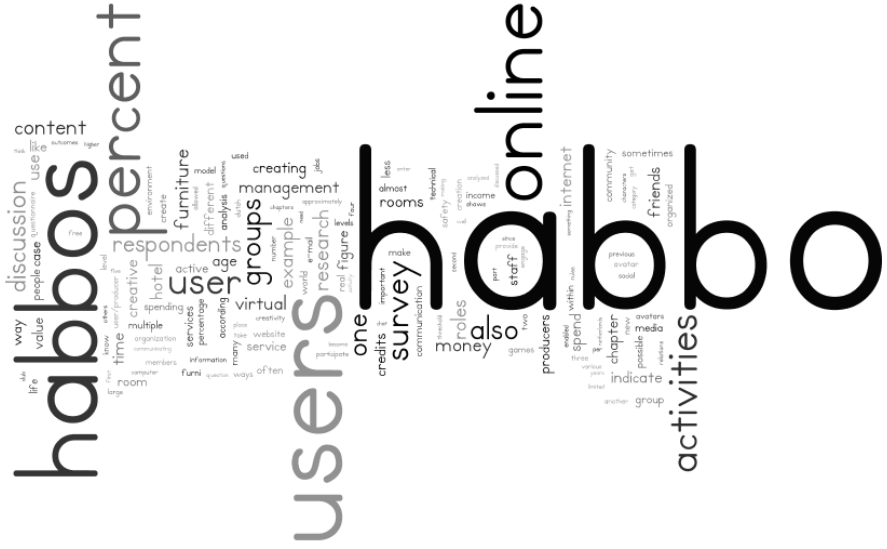
5.8.2 Offline versus online media use

The analysis in this chapter shows some interesting differences in online and offline media use. Often, users who engage in an offline activity also tend to engage in that same activity online. Users who buy offline, seem to be buying more than average online, users who play computer games, play more games on the internet than average. Users who make home videos, tend to digitize and upload these films more often than average. And users who read a variety of newspapers, also tend to read other news sources like newsletters and weblogs above average. The internet does not seem to be replacing traditional media. Often the online varieties of media complement the existing supply. Many traditional media activities, like reading the news, watching television and movies, listening to the radio and reading a book, are possible online. And this makes the internet much more connected with our real lives than is sometimes believed.

Of course, online media are different from traditional offline media. Because of the two-way channel, internet provides users with the tools to engage in a large variety of extra roles (the third articulation). Users can start publishing their own weblog, comment on news messages, upload their own films. This chapter has shown that, although users do engage in these activities in large numbers, they are still not as popular as consuming and communicating activities. Users do create, facilitate and share, but on a less frequent scale. Customizing is easier and more popular than creating, and communicating by sending messages is easier and more popular than active forms of communication like engaging in a forum discussion. The younger user groups are more active in these newer forms of internet use and seem to be better at home engaging in activities outside the traditional domain. It might be interesting to repeat this survey in ten to fifteen years, to find out whether age differences are slowly fading away or that they remain present. Also, since throughout the analysis the bias in age (young) and education (high) had to be taken into account, a more representative and large-scale user survey could further help to develop our understanding of use activities of the population as a whole.

In the next chapter, one case will be analysed in more detail. This case involves the youngest user group and shows user roles and user/producer interaction in Habbo.

chapter 6



6 User roles and user/producer relations in Habbo

In this dissertation, user activities are seen as a social practice in the context of online media services. Users are enabled by the internet to perform roles besides consuming content and do things that are not always intended by producers. The previous two chapters highlighted both possible and actual user roles and user/producer relations in online media services. These chapters were built upon quantitative data gathered through a content analysis and a user survey. These chapters have provided insightful but generic information on user roles and user/producer relations. In this final empirical study, the focus lies on the way user/producer relations are shaped in one particular case: Habbo. This case will provide a more in-depth account of actual user roles and user/producer relations. This chapter will answer the third and fourth sub-question of this dissertation for one particular case; how do current online media services incorporate user roles and user/producer relations and what roles do users take on in online media services?

This case study is based on desk research, interviews, an online user survey among more than 3,000 Dutch Habbo users ('Habbos')⁵¹ and virtual discussion groups with more than forty Dutch Habbos. User roles and user/producer interaction in the online community of Habbo are explored on different levels, roughly following the business model levels introduced in chapter three. Firstly the value proposition will be discussed, indicating what value Habbo offers to its users. The focus on one case enables providing a more detailed description of the value that is offered for the users than in the quantitative content analysis and the user survey. In this chapter, the value proposition is conceptualized from a user perspective. Secondly, the Habbo value network will be analysed. As described in the third chapter, in the description of this business model level, the focus will lie on both user and producer roles. And lastly, the technical and financial arrangements will be discussed. But first, as in every empirical chapter, the research methodology will be explained.

6.1 Methodology: Habbo case study

Habbo is an example of a virtual world with game aspects in the media entertainment domain. The concept was developed by the Finnish corporation Sulake in 2000. Capitalizing on popular user communities like MSN, Habbo provides a digital, online

51 For the questions of the survey (in Dutch), see Appendix 4.

hotel environment in a number of countries, where users can walk around, chat and play games. According to Sulake, at the end of 2008, 117 million Habbo avatars had been created worldwide, and more than 10 million users visited Habbo monthly. The target audience of Habbo is between 12 and 20 years old (ninety per cent is between 13 and 18). This case study involves Habbo in the Netherlands; a joint venture between Sulake and the Telegraaf Media Groep (TMG), owner of (among other things) a number of Dutch magazines. Habbo 'aired' in the Netherlands in February 2004 and in two-and-a-half years, more than 4.4 million Habbo avatars were created and Habbo Netherlands had become second in terms of worldwide revenues.

Habbo is an interesting case study within the context of this dissertation. Firstly, Habbo is an online service that enables users to assume all sorts of different roles. They are consumers, but also creators of content. Habbo started out as an amateur project (Mobiles Disco), but was further developed because of its success among users (Au, 2007). Producers (Habbo management) have very direct contact with their users. Secondly, Habbo has an interesting business model. The users are the backbone of the service. But rather than generating money by selling their target audience to advertisers, Habbo receives the largest part of income from the sales of online, virtual furniture (furni). In Habbo, users can alter their surroundings by decorating their own hotel room. According to Sampo Karjalainen, chief creative officer of Sulake, users create 95 per cent of the content (Borst, 2006). Part of the revenue model behind Habbo is that users are allowed to enter the hotel for free; a room doesn't cost any money. But users are charged for furniture and other extras like playing games. Thirdly, the previous chapters have shown that especially the younger user group of online media services is active on various levels. These young internet users are also the target audience for Habbo.

6.1.1 Multi-method approach

To explore the interactions between users and producers in Habbo, desk research, interviews with Habbo management, an online user survey and data from online discussion groups were combined. Firstly, by means of desk research and interviews with the Habbo management, the business model behind Habbo was analysed. Besides gathering general information about technical and organizational issues, the role of the users in the business model was clarified. In the survey and discussion groups, user roles and attitudes towards Habbo were further explored.



Figure 93 Habbo research room

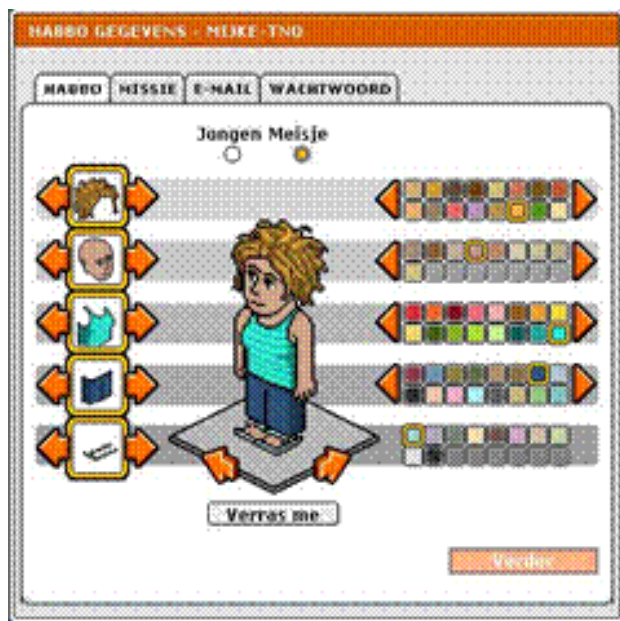


Figure 94 Habbo character

6.1.2 Habbo user survey

To gain more understanding about user roles of the Habbos, a user survey was placed on the Habbo website. Every month, Habbo NL is visited by approximately 500,000 users. In May 2006, a link to the online survey was offered online. All users were enabled to complete the survey. Sampling occurred through self-selection. In five days, more than 3,000 people filled in the questionnaire. Almost as many boys (46 per cent) as girls (54 per cent) filled in the questionnaire. This differs five per cent from the division in gender as provided by the Habbo management (boys 51 per cent and girls 49 per cent). The average age of the Habbos is 12.8 years old. Most Habbos were 12 or 13 years old. And 71 per cent of the respondents are between 12 and 16 years old (according to Habbo this is 76 per cent).

The calculated average age differs two years from the average age calculated by the organization of Habbo (12.8 against 14.8). One possibility is that the age variable is influenced by the self-selection process; younger Habbos might be more willing to complete the survey. Another option is that the Habbos have the freedom in an online survey to display their real age (in Habbo they need to be 12 to be allowed to participate, otherwise they must ask their parents for permission). One possible explanation is thus that they pretend they are older in the community.

6.1.3 Methodological issues

One methodological risk concerning online questionnaires is that respondents can complete the questionnaire multiple times, or that they do not give serious answers to the questions. To counter the first problem (respondents filling in the questionnaire multiple times) it is no option to check for IP addresses. Sometimes, one computer is used by many persons, for instance a school computer. Furthermore it is not possible to examine this by asking users their Habbo names; most people have more than one Habbo avatar. To prevent users from filling in the questionnaire more than once, they deliberately were not offered a reward (for example digital furniture - *furni*). By doing so, users did not have an incentive to complete multiple questionnaires. Furthermore, the questionnaire was rather long (45 questions), so it would have taken users a lot of time to respond multiple times. And a last indication that most users filled in the questionnaire only once and also rather seriously, was given by the last question. The users were asked if they were willing to participate in a follow-up of the research. This question yielded almost 2,800 unique e-mail addresses.

It needs to be underlined that, although online research (particularly online questionnaires) probably will yield many responses, bias is likely. Because of self-

selection, the more active and dedicated users will more likely respond to an online call. Since they visit the service more often, they will probably see the call sooner than less active users. Also in the Habbo research, it was evident that the majority of respondents were dedicated Habbo users. It needs to be realized that short-term or occasional users are therefore underrepresented in the study. In the online questionnaire, this can be derived from the fact that (1) most respondents have been online for more than a year and (2) the percentage of Habbos who are spending money on their Habbo account exceeds fifty per cent. This is much higher than the percentage of spenders that Habbo reports (9 per cent). This bias also clearly shows in the response to the online discussion groups; 63 per cent of Habbos are Habbo Club members. Compared to the overall Habbo figure of 5 per cent, this is relatively high.

The 45 questionnaire questions were grouped into four different themes, (1) general characteristics and media use, (2) financial affairs, (3) perceived value and (4) user roles and communication. The analysis was conducted using descriptive statistics.

6.1.4 Online discussion groups

Subsequently, a selection of users was invited to participate in online discussion groups organized in Habbo. In one-hour sessions, the most interesting outcomes of the questionnaire were further explored. The questionnaire and the discussion groups were organized within a time span of half a year. Therefore, to avoid the risk that many e-mail addresses would prove invalid, rather than relying on the Habbos who filled in their e-mail addresses for a follow-up of the survey, a new call for participation was placed on the Habbo website. Habbos had to indicate their e-mail address, age and if they were Habbo Club Members or not. Habbos below the age of 13 had to provide the e-mail address of their parents.

More than 4,000 Habbos wanted to participate in the online discussion groups. Groups were made dividing girls and boys into age categories. Within these groups, members and non-members were separated. The group of Habbos below thirteen were also filtered according to e-mail address. Many had filled in e-mail addresses that were unconvincingly their parents'. These e-mail addresses, for example xxxkissiexx@hotmail.com or powerbabe45@msn.com⁵², were deleted from the file. From the remaining group, 80 Habbos were randomly selected and received an e-mail; 46 of them responded. These 46 Habbos were divided into discussion groups and

52 These e-mail addresses are fictitious.

invited to come to Habbo at predefined times. Of these 46 Habbos, ultimately 42 (91 per cent) showed up during the sessions.

The discussion groups were held in a virtual research room in Habbo, created by the present researcher, who also created a Habbo character (see Figure 93 and Figure 94). Facilitated by the Habbo staff, the research room was decorated and the sessions lasted one hour each, with approximately three to four Habbos visiting the room every session. To keep uninvited guests from entering the room, it had a password which was e-mailed to the participants before the session started. They were explicitly asked to keep this password confidential. The session rules were explained in the e-mail containing the session password. For example, if Habbos wanted to say something, they were asked to wave, so the researcher could respond without the session turning into chaos. By entering a code before each session started, the chat log was automatically saved and at the moment the session closed, the chat log was automatically sent to the researcher's e-mail address.

During the sessions, Habbos discussed different themes, for example user/producer relations, online identity, safety and financial affairs. The outcomes of the discussion groups were used to clarify the questionnaire research outcomes. Because meeting respondents online and participating in discussion groups with avatars in their own virtual environment is still quite unusual, in the following section, attention will be paid to the challenges of studying internet users online. Some of the challenges are also applicable to the user survey carried out in the second empirical study.

6.1.5 The challenges of studying internet users online

In this dissertation, various online research methods are employed. Especially conducting online discussion groups is a rather new practice. Whereas the user survey methodology can rely on an extensive offline tradition, and is not very different from collecting paper surveys, online discussion groups are another story. Especially the interaction between participants in a real-life or virtual setting is different. Therefore, a note about the challenges of studying internet users online is in order.

In 1999, Steven Jones edited a book entitled *Doing Internet Research*. It provided critical issues and methods for examining the 'phenomenon of the World Wide Web' as it was called in those days. The book was mainly directed at computer-mediated communication (CMC) and its use in research practices. In one of the chapters, Witmer, Colman & Katzman (1999) state that the practice of doing online research raises questions about the very nature of this type of research. Does online research demand

a medium-specific methodology? This question still remains a topical subject. In *Virtual Methods* (Hine, 2005), several scholars explore the shift from offline to online research (or a combination of the two). By presenting different case studies, the authors show how the internet changes established methodological assumptions and practices; for example, how researchers have to deal with privacy issues or how to establish trust online. One of the key points of the book is that conducting research through online relationships is possible. According to Hine (2005, p.19) *“contrary to previous doubts, effective qualitative research relationships can be forged online”*. What are the differences between offline and online research?

According to Mann and Stewart (2000), internet facilitates many research aspects. This is the largest advantage of conducting online research. Through the Internet, researchers have extended access to participants and space barriers are diminished. It is possible to research user populations from all over the country – or even all over the world. Secondly, both cost and time can be saved (see also Frankel & Siang, 1999). Researchers and respondents do not need time to travel, no costs are involved to arrange for a meeting place and no tape recording and transcription costs are needed. Methodologically, the transcription of the dialogue is carried out by a computer without transcription bias and the data are digitally more easily handled. Last but not least, an online research is participant-friendly. The threshold for participating in a conversation is most often lower than in a face-to-face conversation, since participants are in their own safe environment. With respect to online ethnography in particular, Rutter and Smith (2005, p.84) notice that it surely is a researchers’ dream: *“It does not involve leaving the comforts of your office desk; there are no complex access privileges to negotiate; field data can be easily recorded and saved for later analysis; large amounts of information can be collected quickly and inexpensively”*.

But organizing online research not only offers advantages. It also presents some difficulties. One challenge for online research is that the researcher needs to be not only capable in communication, but also computer literate (Chase & Alvarez, 2000). Particularly when directly chatting with young respondents in an online environment (as is the case when discussion groups in online environments are organized), researchers need to be able to react (and type) very quickly. It is more difficult to keep online discussion groups organized than offline ones, since researchers cannot rely on gestures and facial expressions. The respondents are easily distracted and sometimes do not let others finish what they have to say. For a researcher, keeping control over a group of more than four people is complicated. It is difficult to maintain the structure of the conversation and discuss all subjects according to plan.

Although every avatar was present in one virtual research room, all participants were in their own house and behind their own computer. And being in separate rooms during the meeting is also a challenge. It makes it more difficult for the researcher to control external influences. The threshold for users to engage in other activities in real life during the meeting is lower, for example getting something to eat, multi-tasking or making a telephone call. Sometimes, users are forced to leave the conversation permanently. They have to leave for dinner or because another family member needs to use the computer.

Besides participants that disappear temporarily or completely, also technical obstacles can hinder online research. This hindrance is a particular threat to online discussion groups – for they rely entirely on synchronous communication. A slow or unstable connection can be a major bottleneck in conducting online research. During the Habbo discussion groups, luckily, there were only minor technical problems. Another technical constraint in the online Habbo environment was the limitation to the number of characters that could be entered per sentence in a chat balloon. This constraint was also mentioned by Chase and Alvarez (2000). This sometimes was a hindrance to communication, since participants had to use two text balloons to type one sentence.

But, overall, talking to internet users in their online environment has been of great added value to this research. First of all, it is a new way to approach young users of virtual worlds. Trying out a new research method enabled by the internet has been an added exploration and learning experience. Secondly, talking to the Habbos in their own environment gives the researcher a good sense of the online culture and behaviour. It shows the way Habbos communicate with each other in the online environment. Thirdly, being online in Habbo gives the Habbos a sense of 'being at home'. They can still be their Habbo character.

6.2 Habbo

Habbo combines an online environment with community and gaming aspects. Most Habbos in the virtual discussion groups agree that Habbo has game elements; users can play small games online. But they also underline that Habbo is more. Action within Habbo is not directed at one single goal, as is the case in many online games. The hotel is more like a meeting place where users can do whatever they please – relax, chat, play, walk around, and decorate their hotel room and more. Users describe Habbo as (among other things) a 3D chatbox, virtual communication, a sort of real life, a house with rooms, a meeting place on the computer and a second life on the computer.

Approximately half a million unique users visit the Dutch Habbo every month. It does not need a lot of advertising; the online survey shows that the majority of users are getting acquainted with the service through word-of-mouth. More than 75 per cent of all users were introduced to Habbo through friends or classmates.

6.2.1 Habbo users

Besides spending time on the Habbo website, Dutch Habbos are very active online. Figure 95 shows an overview of these activities. Habbos communicate, download and create their own content in the form of websites, weblogs or self-made movies. Chatting (78 per cent), playing online games (77 per cent), e-mailing (72 per cent) and downloading music (65 per cent) are the most popular activities among the respondents of the online survey. Almost forty per cent of Habbos use the internet to watch movies or video clips. Approximately thirty per cent use the internet to gather news and almost twenty per cent read weblogs online. Downloading movies (18 per cent) is less popular than downloading music. And 16 per cent of the respondents use the internet to share self-made movies with others.

Almost half of all respondents (47 per cent) have a weblog, a website or both. Approximately forty per cent of the survey respondents have their own website or Habbo fan site, and 22 per cent keep a weblog. These activities are often combined; 71 per cent of the Habbo users who have their own weblog also have a website (it is of course possible that the weblog is on their website). This is a large percentage compared to Dutch youth in general. In 2005, the research 'Jongeren 2005' (Qrius, 2005) showed that 29 per cent of all young people (ages 6 – 29 years) have their own site. Compared to the outcomes of the user survey presented in the previous chapter, website ownership is slightly above average (40 versus 37 per cent) and weblog ownership is slightly under average (22 versus 27 per cent). Almost seven per cent of the Habbo users used the 'other' category to complement the possible options. A lot of Habbos also use the internet for schoolwork, surfing for information and listening to music. These categories were not included in the survey. Some users are very dedicated to Habbo; more than four per cent indicated they use the internet for Habbo, or Habbo related things (notwithstanding the question: '*What else do you use internet for?*').

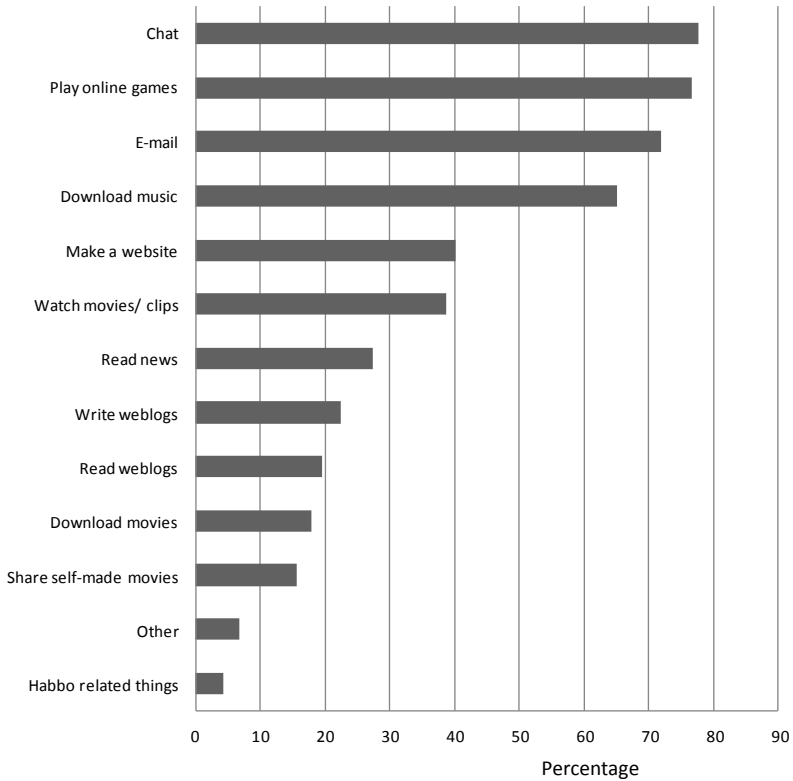


Figure 95 Online activities Habbo users

Habbo fits very well into the media use pattern of these young people. Communicating, playing games and creating content online are things they do regularly. And Habbo integrates these activities into one Hotel platform.

6.3 Value proposition

The value proposition represents the value of Habbo for its users, from a user perspective. The information used in this section is gathered in the online user survey and further qualitatively analysed in the online discussion groups. This has enabled a more detailed analysis of user value than the previous two chapters.

For most respondents to the online survey, the community aspect of Habbo is the most important value-adding aspect of Habbo. Almost eighty per cent of the respondents find chatting with other Habbos very important. Having a lot of friends is considered more important by 78 per cent of respondents while having a lot of *furni* is considered

important by 54 per cent of all respondents (users could choose multiple answers). Playing games is considered important by 30 per cent of the Habbo respondents. In the online discussion groups, most Habbos underline that Habbo is fun because of the chance to meet friends and the social component. Some Habbos even think their online friends are better listeners than their friends in real life. Other Habbos indicate that they are very shy in real life. On Habbo, according to the Habbos in the discussion groups, the threshold for making friends is much lower and the online community allows them to be 'themselves'. Habbo provides users the opportunity both to pretend to be someone else and to show their true personality. Since the community aspect is the most important value for Habbos, in this value proposition section, online friendship and community aspects will be further explored.

In online communicating services like MSN messenger and Twitter and profiling social communities like Facebook and Hyves, users primarily connect to people they already know in everyday life. But in Habbo, this is not the case; 71 per cent of all Habbos who fill in the survey, say they meet most of their friends on Habbo; 16 per cent of the Habbos indicate they already knew most of their friends in real life, and four per cent have met most of their friends in other online services like games or social networking sites.

The opinion that having friends is important can be further deduced from the friends lists that are created by the Habbos. More than 70 per cent of all Habbos say they have more than 50 friends online. Habbos are positive about the possibilities of Habbo for making and maintaining friendships. More than three-quarters of the respondents agree that Habbo is a good way to meet new friends; they get to know more people in Habbo than anywhere else online (see Figure 96). Only seven per cent of the Habbos say they don't make new friends in Habbo. Furthermore, 85 per cent know the real names of most Habbos in their friends list and 60 per cent think that they really get to know the other Habbos.

But still, Habbos seem careful about their online friendships. The online survey shows that a minority (although high at 42 per cent) consider the Habbos on their friends list to be their true friends. And 38 per cent speak to their Habbo friends on other places like MSN, via e-mail or in real life. But still, the Habbo majority seem to be aware of the risks involved when meeting people online. Only eight per cent of the respondents give their private phone number to people they meet on Habbo.

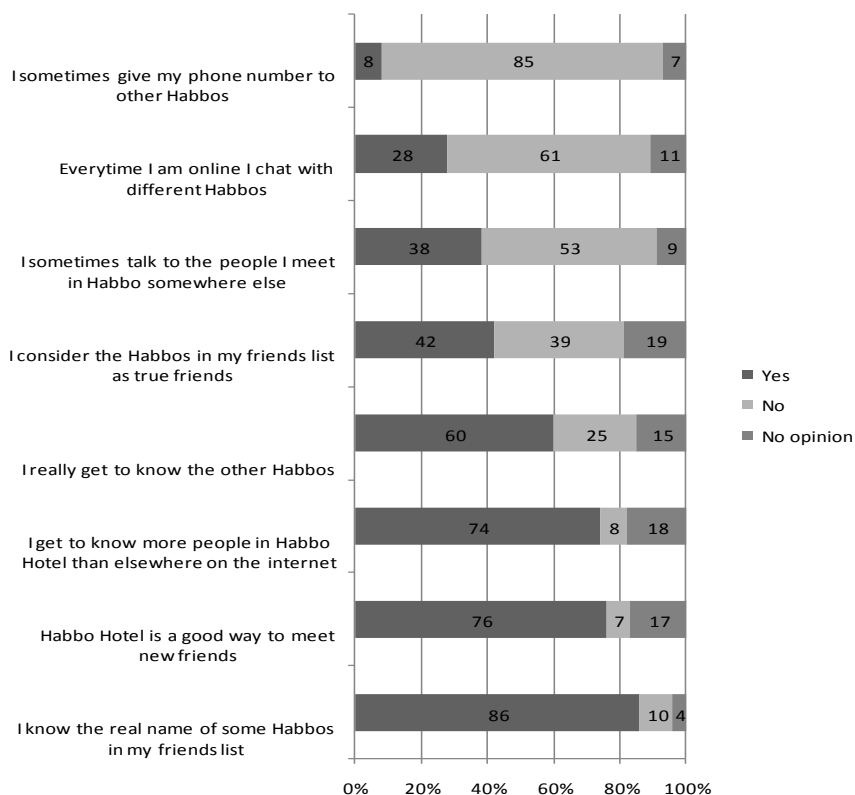


Figure 96 Habbo friendship theses (N=3219)

6.3.1 Dedicated users

As has been explained at the beginning of this chapter, it is likely that a large portion of more dedicated Habbo users have filled in the survey. This assumption is substantiated by survey outcomes. More than 70 per cent of all respondents indicate that they have been on Habbo for over a year. Looking at age differences, the user group under thirteen years old is less frequently online for more than a year than the age groups over 13 (<13; 63 per cent, 13-16; 80 per cent; >16; 78 per cent). Furthermore, more than half of all respondents are Habbo Club members (HC member). Boys are more often HC member than girls (60 per cent versus 46 per cent).

Approximately 42 per cent of the Habbos indicate in the survey that they have more than five Habbo avatars (see Figure 97). Avatars are Habbo characters that users create to represent themselves in the online environment. This is surprising, because defining

the categories of the survey in consultation with the Habbo management, the category ‘more than five’ was meant to be a rest category. Furthermore, 32 per cent of all respondents have ten rooms or more. As the respondents are older, the number of rooms is growing. One third of boys under the age of 13 have more than ten rooms, compared to 44 per cent in the age group over sixteen. In the girl group, 26 per cent have more than 10 rooms under 13 years of age, in the group over 16, 47 per cent have more than ten rooms.

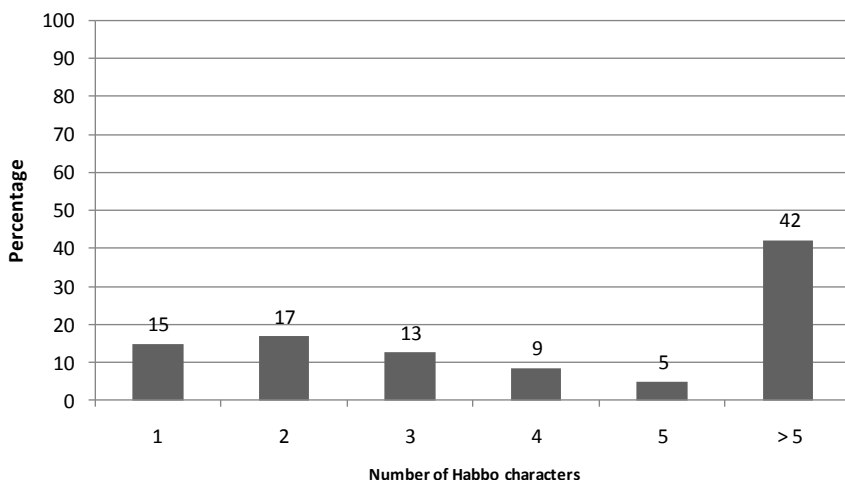


Figure 97 Number of avatars per Habbo user (N=3219)

The fact that many Habbo users own multiple avatars was further discussed during the online discussion groups. Principally, Habbos have one character they spend most time with online. Some Habbos have more than one Habbo character. Sometimes the Habbo management gives Habbos free credits (for example as a Christmas gift). These credits can then be transferred into one account. But besides this pragmatic use of multiple characters, Habbos have many other reasons to have more than one avatar. Some avatars are used as substitutes in case the most important avatar is expelled from Habbo because of abuse accusations, or hacked by another Habbo. Some Habbos indicate that they use these other avatars to go undercover. As one Habbo explains: *“as a Habbo you do have some kind of reputation :P if you change avatars, this image doesn’t bother you for a while”*. Some Habbos use their other avatars to make a room appear more crowded, to store spare furniture, because they are tired of their old name, or to lend out to friends.

6.3.2 The value proposition in perspective

The analysis in this section shows that the social and community aspect is the most important value-adding characteristic of Habbo. Just as do many web 2.0 services (as shown in the fourth chapter), Habbo provides a platform and relies on its users to interact with one another, provide content and value to each other. Users think that Habbo is a good way to meet new friends – most of them they have never met in real life. The opportunity to meet people, talk and interact creates the value for users to enter the virtual world. To position themselves in this online virtual world, most users have multiple characters and multiple rooms. They use the online environment and the tools that are offered to them to create an online presence - by dressing themselves, decorating their room and interacting with other Habbos. Sometimes, such as in the example with the multiple Habbo avatars, they try to make use of existing possibilities to create more value or reputation for themselves, like gaining more credits. In that sense, they try to find the loopholes in the existing structure provided by Habbo, and use the virtual world in ways not intended by the producers.

6.4 User roles in Habbo

Both users and producers are enabled to take on a variety of roles in Habbo. Taking the main roles of chapter three as starting point, users can consume (by looking, playing, buying), create/customize (by changing characters, organizing activities and decorating rooms), contribute (by trading furniture or reporting a scammer⁵³) and communicate (by chatting, commenting and sending each other messages). Producer roles are more limited and primarily focus on facilitating and promoting. This is in line with the results of the quantitative content analysis in chapter four. Habbo does create content – by offering a selection of outfits and furniture and shaping the public rooms. But the users fill in the largest part of Habbo by decorating their rooms in their own style. But first, some general information on time spending will be given.

6.4.1 Time spending

In the online survey, questions were posted on online time spending in Habbo. Habbos were asked to indicate on which activity they were spending most of their time. Figure 98 shows the outcomes of this question. Habbos spend their time chatting (24 per cent) and participating in activities (20 per cent). A smaller percentage is mostly occupied

53 A scammer is a Habbo who tries to steal the password of other Habbos to be able to get free furniture.

with sending messages to other Habbos (11 per cent), making new friends (ten per cent) or decorating their rooms (nine per cent).

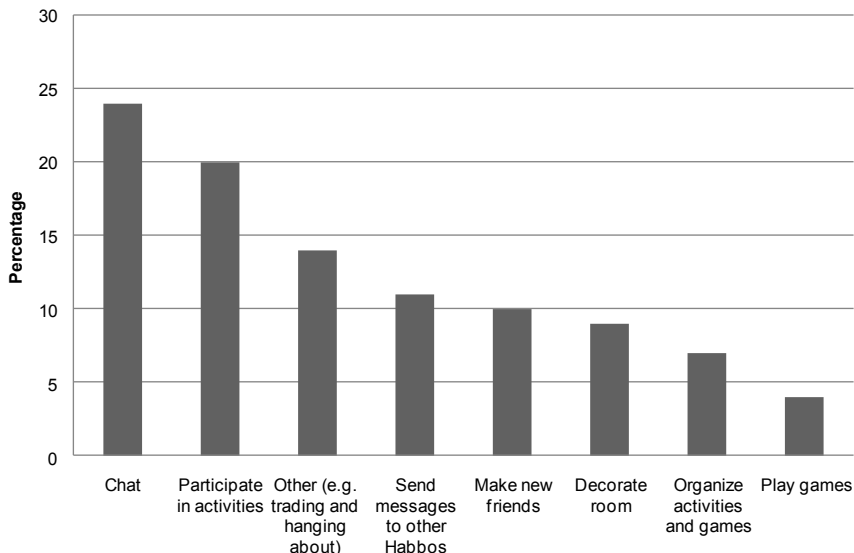


Figure 98 Time spending in Habbo (N=3219)

6.4.2 Creating content

In the online survey, online content creation was further analysed. To be able to map the broad range of content creation activities, and to make it understandable for the Habbos, in the online survey and discussion groups the term creativity was used. One of the questions was if the respondents thought Habbos are creative people. And they do; more than seventy per cent of all Habbos indicate that Habbos are creative people – only nine per cent of all Habbos feel that Habbos are not creative. More than 75 per cent consider *themselves* to be creative. Also in the online discussion groups, the Habbos stress that being creative is an important aspect of the online community. Almost a quarter of all Habbos indicated that they never did something creative in Habbo, but more than 75 per cent did.

Some Habbo remarks that were written down in the online survey indicate the diversity of creative activities or the opinion of Habbos about them (it was an open-ended question). Some Habbos indicate they don't know how they can be creative online, as one Habbo writes: "*How does that work?*", or "*I can never think of something I don't know how it works!!*". Others try to stretch the definition of creativity, as can be

illustrated by the quote: *"Is playing hide-and-seek creative ? Yes right ? =D"*. That creativity not only takes place within the boundaries of Habbo, is stressed by a number of users: *"a party about habbo (in real life)"*, or *"Ehm not really for www.habbohotel.nl but activities among friends and making alternations for friends or myself"*, and *"I have made an assignment about habbohotel at school !"*.

The quotes underline that creativity is a rather broad concept. When people talk about creativity, and creative people, they are usually referring to artists, writers and inventors. But in Habbo, users are involved in everyday creativity (Slot, 2010). In everyday creativity, artistic quality criteria are not taken into account, but the focus lies on daily creative activities distinguished by the Habbos themselves. Creativity is seen as an activity. Children in Habbo can be creative because they do, organize or make certain things that are, to a certain extent, new, surprising or unexpected. This allows Habbos to be creative to a greater or lesser extent. Combining various existing elements into something new is, for example, less creative than setting up, from scratch, something that has never before existed in Habbo.

Similar to the conceptualization of the activities in the previous chapter, also in Habbo user roles can be defined that require a lower or higher level of user effort. Based on the Habbo analysis and the user survey, three levels of creation activity are distinguished in this chapter; adapting, initiating/organizing and creating. Adapting involves a limited degree of effort in which Habbos can make their own combinations of pre-defined elements, for example, putting together an avatar from existing parts. The second level of creating activity is initiating/organizing. Besides participating in existing activities, Habbos can create activities themselves. They make use of existing elements from the virtual surroundings, but present them in a new combination or with a new meaning. The third activity, that requires most effort, is creating content. When Habbos create, something new is built up from nothing. Habbos can, of course, have been inspired by certain elements from Habbo, but, as such, what they have created did not exist before. An example is writing a story about Habbo.

Figure 99 shows an overview of the creating activities of the Habbos. While, evidently, a hundred per cent of the Habbos engage in the first level of creativity, adapting, fewer Habbos are creative on the second or third level of creativity. In the remaining part of this section, all three levels will be discussed in more detail. To illustrate the level of creativity of the Habbos, data is used from the user survey and the online discussion groups.

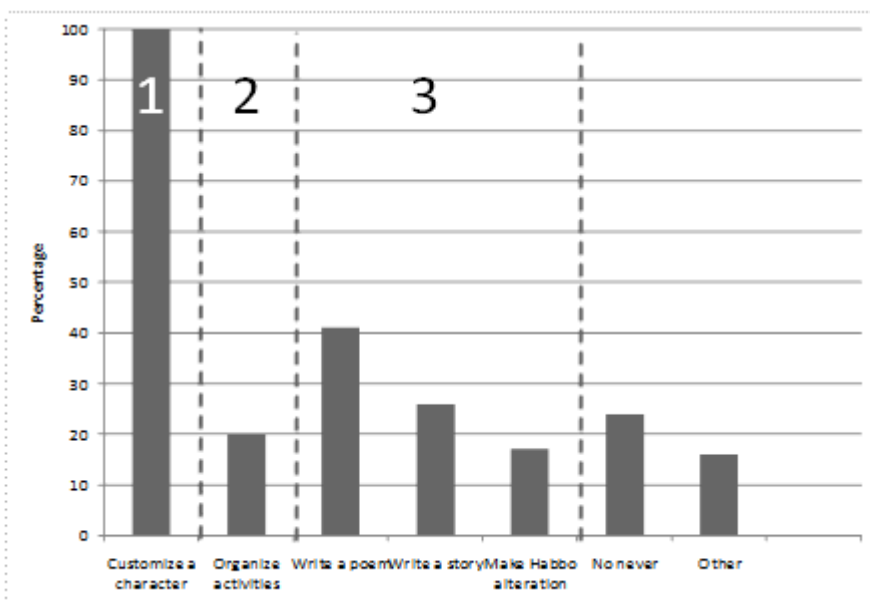


Figure 99 Habbo creation activities (N=3219)

Adapting: customization

The first way of being actively creating content, as already mentioned, is adapting; the customization of the Habbo character and the private rooms. This customization is done by 100 per cent of the Habbos. Without a customized avatar, users cannot enter the hotel. Customization is bound to a limited set of choices. Only Habbo Club members, who pay a monthly fee, have more choice than other Habbos. As has already been explained in this chapter, the number of possible variations has been kept limited for technical reasons. According to Habbo, the available options provide the Habbos with enough opportunities to express themselves. Since the online service started, Habbo has expanded the possibilities because their users have required it. In the user survey, Habbos were asked whether they were satisfied with the choice they had; 77 per cent of all respondents say they still do not have enough choice to customize their Habbo characters. Technologically it should be possible for users to upload their own character or self-made furniture. But the Habbo organization has deliberately chosen to rule out this opportunity.

Initiating/organizing: activities

A second way for users to participate in Habbo is by organizing all sorts of activities and events. The Dutch Habbo management is actively trying to interest their users to

participate in activities. They pay attention to user activities on the website and organize a broad variety of activities for their users. But most activity is generated by users themselves, without interference of the Habbo staff. Habbo proves to be primarily a platform for user participation. Almost sixty per cent of all survey respondents think that in Habbo the Habbos organize a lot of activities themselves.

In the online survey, more than 80 per cent of all respondents indicated that they participate in activities. While almost fifty per cent join activities organized by the Habbo staff most of the time, 32 per cent mainly participate in activities organized by other Habbos. This means that they more often participate in activities organized by other Habbos than in activities organized by the Habbo organization. A small number of respondents (four per cent) are occupied by their own activities. The percentage of boys that participate in activities organized by Habbo is slightly higher than the percentage of girls (53 per cent versus 43 per cent). And the percentage of girls that participate in activities organized by other Habbos is slightly higher than the percentage of boys (36 per cent versus 28 per cent).

In the online discussion groups, the differences between activities organized by Habbos and the activities organized by the Habbo staff were discussed. Most of the Habbos prefer one of the two. The discussants were asked to indicate in what ways activities differed. According to the Habbos, activities organized by Habbo staff are more often large scale and well organized. Most of the time, the activities are widely known in the community and the prizes are higher. As a disadvantage, the users in the discussion groups mention that the activities are very large-scale and that everybody wants to participate. The chances of winning are smaller. Activities organized by other Habbos are often very small scale. The activities are less well organized or a bit messy. Sometimes, Habbos need to gamble with their own furniture, and sometimes Habbos cheat. Nonetheless, these activities are thought to be more creative by the discussants. And the chances of winning are higher.

Creation: user-created content

A third way of being active in Habbo is by creating content; the level of creation that requires the most effort of the users. Figure 99 shows a number of creative activities from the user survey. More than forty per cent (41) of the Habbos indicate they have once written a poem, 26 per cent have written a story and 17 per cent made a Habbo alteration (an alteration of a real-life person in Habbo pixel style). Habbos that create content often do so to participate in competitions. An example is the Habbowood competition, in which Habbos were invited to make their own short Habbo movie. But

Habbos also send in creative contributions because they like doing it. Other options for users to generate content is reporting bloopers or Habbo wisdoms, and making screenshots. Technology functions as an enabler and facilitator of these activities. The threshold for creating and distributing content online is very low. Habbos can write messages, post poems and keep their own profile on their own home.

Users also engage in other forms of user-created content. They like Habbo so much that they want to express this in other places, both online and offline. Although these activities were not a part of the online survey, Habbos used the 'other' option in the survey to indicate these creative other Habbo activities. Approximately 16 per cent of the Habbos indicated that they engage in other creative activities. Examples are that users actively make Habbo part of their real life by organizing Habbo themed parties, or making school assignments with Habbo as subject.

A last creative phenomenon is that Habbos create their own jobs. Almost sixty per cent of all Habbos report they have had one or multiple jobs in Habbo. This phenomenon has developed outside of the regular Habbo organization. Almost 60 per cent (58 per cent) of all Habbos say they have or once had a job in Habbo. Most indicate that they have had multiple jobs. Between boys and girls there are practically no differences. Comparing age groups, the younger Habbos have a higher percentage of jobs than the older age groups; 63 per cent of the group under 13 indicate that they have had a job, versus 54 per cent of 13-16 year olds and 46 per cent of the age group over 16.

The jobs Habbos have are often offered by other Habbos and reflect jobs people have in real life. Popular jobs in Habbo include those in the field of advertising, modelling, labour recruitment, the police, bar keeping, customer support (help desk staff), health care, catering (McDonalds), even being a member of the Mafia. During the discussion groups, Habbos were asked about these jobs. The Habbos clarified how jobs work. Advertising, for example, is saying to other Habbos they should go to one particular room. Offering jobs to other Habbos is also a popular job, but sometimes turns out to be a complex construction to acquire furni. Habbos go to a room with another Habbo behind a desk. This Habbo asks whether the Habbo wants a job. If this is the case, the Habbo who is looking for a job gives the other a furni. In return, he gets the password of the same room. So the Habbo that paid the furni can enter the room to start offering jobs to other Habbos.

6.4.3 Communication

In the online domain, the threshold to communicate is very low. Obviously, mutual communication between Habbos is at the core of Habbo. The service provides its users with a meeting place where they can chat with each other. All Habbos (hundred per cent) engage in conversation with one another. They can chat directly or send each other invitations and messages through their Habbo console. They can check their friends list to see whether their friends are online and they can visit them in their rooms or meet somewhere else in the hotel. But Habbo is also a platform for communication between Habbo users and Habbo staff. The Habbo staff communicates with the Habbos through the website and sends a newsletter to their users once a month. Primarily, communication involves developments and rules in Habbo and new initiatives and competitions. But Habbos also communicate with the hotel management. Users can push a report button when something happens that is not OK. But next to this communication option, users have various ways to contact the management.

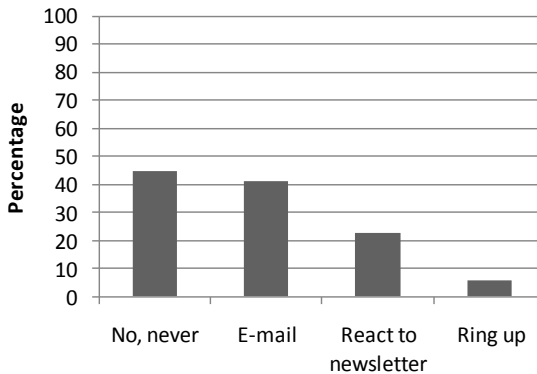


Figure 100 Communicating with Habbo staff (N=3219)

To get an idea of the direct interaction between Habbos and the Habbo management, one of the questions to the Habbos in the online survey was if they communicated with the Habbo organization. As Figure 100 shows, approximately 45 per cent of all respondents indicate that they never have contact with the Habbo management. This implies that 55 per cent of all respondents do communicate with the organization. Habbos could choose multiple answers; users send the management e-mails (41 per cent), react to a newsletter (23 per cent) or call the Habbo organization on the phone (6 per cent).

Communicating with Habbo staff was also one of the online discussion group themes. Most Habbos indicate that they have tried to contact the Habbo staff, and stories about the success of these attempts vary. Some Habbos have received an answer instantly; others had to wait for a long time or did not get an answer at all. Habbos think it is very important that all questions are answered. As one Habbo indicated: *“if the Habbo staff would not answer any questions, it would be chaos”* or they indicate that it makes them feel safe if Habbo staff reacts instantly. The Habbos are well aware that all the messages cause some strain on the Habbo management. Nonetheless, most of them think that response time in case of important messages should not exceed five minutes. Overall, Habbos are satisfied with the communication with Habbo staff. Almost 60 per cent of all respondents to the survey think that the Habbo management listens very well to what the Habbos want.

6.4.4 User roles in perspective

In this section, user roles have been analysed on the basis of the online user survey among Habbos and the online discussion groups. While the producers primarily employ facilitating roles for the community, users are enabled to engage in a variety of activities. Most importantly, users engage (next to consuming) in creating content and communicating.

In this chapter, a division is made between activities that require more or less effort. Creating is viewed as an everyday concept and divided into three distinct forms; adjust, organize and create. The results of the analysis are similar to the outcomes of the user survey in chapter five. Adjusting (or customizing), the creating activity that requires the least effort, is most popular among users. The second level of creating (organizing events) is carried out less often. A significant portion of users engage in the ‘highest form’ of creating – creating content. Thus, also in Habbo, users are enabled by technology to assume multiple roles. They can become prosumers, producing their own content. The Habbo organization is mainly providing a platform for users to be active and interact with each other.

As shown in domestication studies, users have the power to use a service in unintended ways. Also in Habbo, the ways users engage in creation activities are often not envisioned by Habbo staff, but introduced by the Habbo users. Examples are creating jobs or making Habbo alterations. Sometimes, these creative activities are carried out outside the realms of Habbo, for example because it is not technically allowed to create a Habbo alteration inside the virtual world.

In addition to creation, Habbos communicate on a large scale. And this not only entails communication between users, but also communication with Habbo staff. As opposed to analogue media services, the internet significantly lowers the threshold for communication and creates the opportunities for a responsive dialogue between users and producers. More than half of all users who filled in the survey indicate they communicate with Habbo staff members.

6.5 Habbo's technical arrangements

As explained in chapter three, the relationship between users and producers is conceptualized in this dissertation on different levels. One of these levels is technical in nature. Through technology, producers can enable or constrain user behaviour. Based on management interviews and an analysis of the Habbo website, the technical nature of Habbo is analysed. Technically, Habbo is a freely available web-based service. Users only need an internet connection and Shockwave – a multimedia player – which can be downloaded from the internet. Broadband internet is no direct requirement since the pixel-style of Habbo is not very demanding of computer systems. When users do not have broadband internet, they can experience slower loading time for the Shockwave application, rooms and the chat functionality. But the loss of speed is not very serious. Given the fact that most Dutch households have a broadband connection, Dutch Habbo users will not experience these troubles, and Habbo therefore has a very low threshold for participation. The Dutch Habbo game server can handle 20,000 people at the same time and is located in Berlin, Germany. This server hosts all European hotels.

But as was explained in the content analysis of online media services, most online services offer users a low threshold for participation, but the technical openness is low. Users are not enabled to change the source code of a service. Also Habbo makes use of a proprietary source code. Unlike in open source software projects or environments like Second Life, users are not allowed to alter the Habbo surroundings and their avatar outside the boundaries set by Habbo. Scripting – adjusting Habbo features by using software – is explicitly forbidden by the Habbo staff. Users who break these rules are expelled from the social network.

Users are enabled and constrained in their activities by the way Habbo is technically constructed. Based on management interviews and site analysis, two specific aspects of Habbo are chosen for discussion; entering the hotel and the way Habbo management tries to keep the service safe. The part on safety in Habbo is further examined in the online focus groups.

6.5.1 Entering Habbo

The first time users enter the hotel, they create a Habbo avatar. Users have to choose a name and a password to enter the site. This name needs to be unique and some names are not allowed. After picking a name, Habbos can choose a male or a female avatar. This avatar can be compiled of different heads, skin colour, clothing and hair colour/style. These options can be changed whenever a user wants, but the choices are limited to what Habbo offers. Users do not have the freedom to create their own characters outside the Habbo surroundings, for example by adding their own head to the avatar or creating their own clothes. The country manager of the Dutch Habbo indicates that this was a deliberate choice. The number of possible variations has been kept limited for technical reasons; the game should be as simple as possible. According to Habbo management, the possibilities provided to the Habbos are sufficient to express themselves. And when users pay for a Habbo clubmembership, these possibilities expand. At the same time, these pre-defined options limit the possibilities users have to creatively shape their avatar the way they want.

Once a character is created, Habbos can enter the hotel. They are free to visit public rooms or the private rooms of other Habbos. The public rooms are created by the Habbo organization and include for example the hotel lobby and a swimming pool. Users can meet each other, chat and play games. Some rooms are sponsored by brands. The private rooms can be customized – a user can choose different shapes of the rooms and buy furniture from a pre-defined catalogue. These can be paid with Habbo credits. And by operating their navigator, Habbos can choose from among different rooms to go to. Rooms are located on different, virtual theme-based floors.

6.5.2 Safety

Another aspect that involves technology in Habbo is the preservation of safety in the hotel. In an online environment, users determine the success or failure of a service. Habbo tries to set boundaries and create the right environment for participation, but cannot predetermine how users will behave. And, as also is the case in real life, not everybody wants to stick to the rules. Habbo in the Netherlands has received media attention because of safety issues. Habbo users lost their valuable virtual furniture to people who stole their username and password or hacked into their computers (e.g. Miltenburg, 2007; Teffer, 2010; Reijnders, 2010). Especially because children are involved, Habbo needs to take safety issues very seriously. The organization has taken a number of measures to make the environment more secure.

Firstly, on the Habbo website safety instructions are provided. Users and parents can find guidelines on the website. There are strict rules for Habbos. It is for example not allowed to use aggressive, rude, sexist or racist language, or to share personal information (name, e-mail address or age) with other Habbos. Secondly, in the Hotel, (real life) moderators are present that monitor the users between 8 and 2 AM. Like digital police agents they supervise the social network. Habbo users can summon moderators when things occur that are not allowed. Moderators can immediately enter the place of the misconduct (even within private password-protected rooms) and take appropriate measures. When Habbos misbehave, they can for example be banned from the hotel. Thirdly, because Habbo is very large and the moderators are not able to monitor everything that is being said and done, technology is also deployed to help keep the hotel safe. Habbo applies a technological tool (George tool) that searches for conversations that match certain defined 'wrong' criteria. For example when two Habbos are in a room and have a private conversation, away from moderators, everything that is said will be registered automatically. If anything happens, or a Habbo sends a complaint afterwards, the conversations can be retraced. Fourthly, Habbo employs an automatic word filter that reacts to abusive language. When certain words are typed in by Habbos, they will be automatically replaced by the word 'BOBBA'. Lastly, to prevent users from being robbed, Habbo also offers a secure trading system. Habbos can use this system if they want to trade furniture with other Habbos in a safe way.

How do these safety measures get across to the Habbo users? In the online discussion groups, safety was one of the topics under discussion. Most Habbo users are well aware of the rules inside Habbo. They know that they should not give personal information to other Habbos. Some actively take part in preserving the safety by reporting scammers. Apart from some Habbos who feared for their possessions when hackers were active in the Hotel, most Habbos indicate that they feel safe online. They state that *"if you know the rules, not much bad can happen"*, or as one Habbo explains: *"I never tell others personal stuff. So nothing happens"*.

The Habbos are aware that sometimes, things happen in the Hotel that are not OK. In the discussion groups, often Habbos mention hackers and scammers (Habbos who rob others by hacking or phishing for their name and password). They all know what to do when something like that happens. They report these Habbos by pushing the report button. Their only concern is younger or newer Habbos. These Habbos often are less informed and sometimes do not know what to do. The Habbo staff has placed enough information online, but not all Habbos read it. As one Habbo explains: *"They often read*

the rules when it is too late...". It is striking that most Habbos in the discussion groups indicate that they have been robbed at least once since they became Habbos.

6.6 Habbos financial model

Next to the technical arrangements, users and producers are connected at the financial level as well. Habbo is a commercial service and users provide the Habbo organization with an income. Subsequently, the Habbo revenue model and user spending will be discussed. The information about the Habbo revenue model was gathered during the management interviews and by analysing the service itself. Information on user spending is gathered from the user survey and the discussion groups.

6.6.1 Habbo revenue model

Users are allowed to enter the Hotel for free; the only requirements are a computer with an internet connection and an e-mail address. As was explained in the analysis of the technical arrangements, participation has a very low threshold. This large group of users does not provide Habbo with direct monetary income (for the time being), but nonetheless is of high value. Firstly, the large user base provides a lot of value for other Habbos. The pool of possible contacts is large – approximately half a million Dutch teenagers visit Habbo monthly. Secondly, the users help to co-create the service by shaping the environment and organizing activities. Thirdly, the user group is a source of inspiration for others. Their online behaviour is very visible and very easily accessible for the Habbo management. But Habbo also directly earns money.

According to the Habbo management less than ten per cent of the Habbos actually spend money in the hotel. But operating the service costs money. Habbo in the Netherlands chiefly has to pay for personnel, license fee, hosting, marketing and providers. Habbo spends most money paying commission to the providers of, for example, payment services. This commission amounts to a quarter of Habbo income. To pay these costs, Habbo makes an income in three ways; (1) they sell Habbo credits to the users of the Habbo service (for premium services), (2) they sell advertising and (3) offer marketing research activities in the Hotel to external parties. In the remainder of this section, the way users directly spend money will be analysed. Data are gathered from analysis of the service, management interviews, user survey and discussion groups.

Habbo credits

Users can spend money on Habbo in three different ways. First, visitors can decorate their hotel room with virtual furniture and plants – they can even get their own pet, but

these items cost real money. Secondly, users can become Habbo Club members for a monthly fee and, thirdly, play games offered by the Habbo staff for money. Similar to other online games and online worlds like Second Life and World of Warcraft, Habbo employs its own online currency: Habbo credits. With these credits, users can buy furniture and their club membership and play games. Habbo users can, for example, buy furniture to decorate their rooms. All items are represented in a catalogue. A chair for example costs three Habbo credits, but there also are more exclusive items like beds, refrigerators and even pets.

In the Netherlands, Habbo credits can be bought in five different ways. Through a telephone landline; through mobile phone, by using a Wallie Card – a prepaid card that can be used for internet payments in the Netherlands, by Minitix⁵⁴ and Credit Card. A Habbo credit represents €0.12 to €0.18 depending on the amount of credits that is bought at the same time and the way of payment.⁵⁵ A Habbo Club membership, for example, costs 25 Habbo credits per month. Given that one Habbo credit stands for €0.14 to €0.18, Habbo members spend approximately €4 on their membership per month. In return Habbo offers members more choice in haircuts and clothing, two extra guestrooms in the hotel, a choice of furniture that is not for sale in the regular catalogue, special commands that can be used and a Habbo club badge next to the avatar.

In an interview with Habbo management in 2006, the manager indicated that the sale of Habbo credits accounted for 90 per cent of income. Besides income from the sale of Habbo credits, Habbo also generates revenue by selling in-game sponsoring opportunities. The possibilities are: product placement, sponsoring of public spaces and sponsoring events in Habbo. It is also possible to place advertisements on the Habbo website. Advertising accounts for only five per cent of income for Habbo. Furthermore, Habbo offers market parties the opportunity to conduct research within the Hotel. This last way of generating money accounts for less than one per cent of income for Habbo Netherlands.

User spending

Almost half of all respondents to the survey indicate that they spend money on Habbo. This percentage is significantly higher than the percentage that is indicated by the management of Habbo, who stated in an interview that only nine per cent of the

54 Minitix is an online wallet in which users can deposit money to make online payments.

55 The analysis of payment methods stems from 2006 and might not be up-to-date.

Habbos buy Habbo Credits. Possibly (as already has been explained) because of the self-selection process, the majority of Habbos who responded to the survey are the more dedicated players.

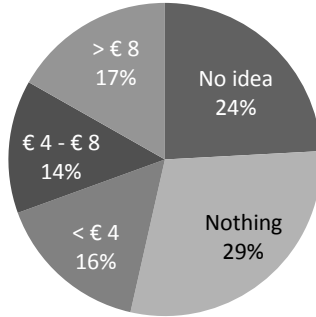


Figure 101 Habbo spending (N=3219)

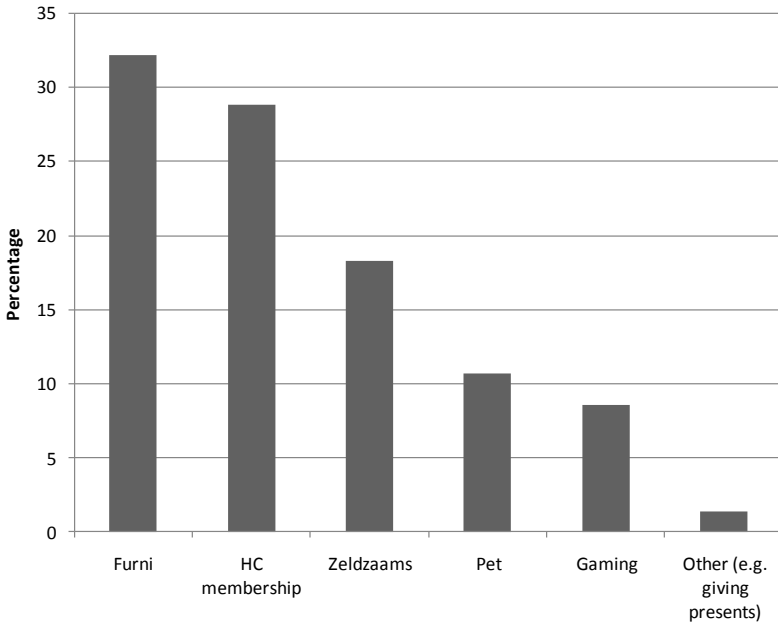


Figure 102 Spending on Habbo (N=3219)

Another possible explanation for this difference is the fact that most users have multiple Habbos. It is a possibility that they only spend money with one of their Habbo characters. Figure 101 shows that 16 per cent of the respondents spend less than four Euros per month on Habbo, 14 per cent spend between four and eight Euros and 17 per cent spend more than eight Euros per month.

In the survey, the follow-up question was that *if* the Habbos were spending money on Habbo, what they were spending it on (see Figure 102). They could choose multiple answering categories. On average they chose 2.5 categories. Most Habbos spend their money on buying furniture and the HC membership. Only a small number of Habbos spend money to play games. There also was an 'other' category. This category was most used by Habbos to indicate that they were also buying presents and trophies for their friends.

The outcomes of the online survey indicate that HC members are more likely to spend a higher amount of money on Habbo than non-members; 28 per cent of HC members indicate that they spend more than €8 per month on Habbo, against only four per cent of non-members. This is not surprising, since Habbo Club Members already spend money on their membership.

In the user survey, some Habbos explain they do want to spend money on Habbo, but their parents will not let them or do not know how the payment system works; *"My parents won't let me, it costs real money... so I'm not allowed, that is really a pity"* or *"I cannot because I am not allowed to use the phone"*. Still, a lot of respondents (63 per cent) indicate that they buy furniture. But there are also other ways of gathering furniture.

Trading economy

Although Habbo management is encouraging users to spend money on Habbo, Habbos do not necessarily have to spend money to get some furniture. They have found a creative solution; even more than buying furni, Habbos trade furniture with each other. There is a vivid trading culture on Habbo; 64 per cent of the survey respondents say they get more furni by trading them and 41 per cent of the Habbos say they sometimes get furni from others, or they win credits in a competition. This furniture can be traded, as one respondent remarked: *"a friend of mine is very rich and I got 2 chairs. And then I traded them and when I was finished I had more than 10 furni and you should consider I started with 2 furni!"* Another often mentioned way to get credits to buy furni is receiving credits from Habbo by creating an account. Some respondents try to collect

more credits by making more characters; *“I make new Habbo characters with which I spend the first three days a lot of time online. If everything works out, you receive five credits, and I give these to the account I spend most of my time on. Smart idea huh. XD”*. Almost one quarter of all respondents say they sometimes receive furni for doing things for other Habbos, like having a job.

In the online discussion groups, Habbo finances were discussed in more detail. Most Habbos think that Habbo is rather expensive. If Habbos want nice furniture, they have to spend money. According to the Habbos, credits have become more and more expensive. Free credits are not given away very often anymore and furniture is expensive. In the discussion groups the researcher posed the question what would change if everything was freely available (open question).

According to the Habbos present, a cost-free Habbo would at least have one advantage – the differences between poor and rich Habbos would disappear. According to the majority of Habbos in the discussion groups, Habbo has inequality. Some rich Habbos or Habbo Club members call Habbos who have less furniture names. More equality would be a positive thing.

Next, it was asked whether Habbos would like Habbo to be free of charge. The majority of Habbos object. They mention various reasons for that. Firstly, the Habbos realize that Habbo needs money to organize and maintain the hotel. Without money, the hotel would probably need to close. Secondly, Habbo would become less special if everything was free. Spending money in Habbo gives users the opportunity to stand out and show their identity. Thirdly, if furniture would be free of charge, all items would lose exchange value. Users suspect that Habbo will be boring without the necessity of trading furniture. Lastly, if everybody were able to collect furniture, Habbo would soon become overcrowded.

Habbos who participated in the discussion groups generally agree that distinction in an online virtual world is not bad. They realize that the monetary value of furniture facilitates this. Nonetheless, they also think that it would be better if Habbo were less expensive, or that it should be made possible to earn credits in different ways, without needing to buy them.⁵⁶

56 In December 2008, Sulake introduced a second form of currency in Habbo – Pixel currency. With Pixel currency, a non-monetary currency, time spending on Habbo is rewarded. The more time users spend in Habbo, the more Pixels they earn. Pixels are also rewarded by Habbo for in-world achievements and

6.7 Conclusion: a dynamic relationship

This chapter presented an exploration of user/producer interactions in the online community of Habbo in the Netherlands. Habbo is an online virtual world, similar to other online communities such as Second Life, but directed at a much younger target audience. Instead of giving a generic, quantitative overview of user roles and user/producer relations (as was the main focus point in the previous two chapters), this empirical study took a different perspective. Based on the four general business model levels, user roles and user/producer interaction in one specific case (Habbo) were explored. Data gathered in desk research, interviews with the Habbo management, a user survey and online discussion groups were used to both quantitatively and qualitatively provide answers to the two final subquestions of this dissertation.

6.7.1 User roles in Habbo

Previous chapters showed that users are enabled to engage in a wide variety of activities in online media services. Most of all they consume and communicate, but users are also enabled to perform less traditional activities that require more effort, such as creating content, facilitating or sharing. Habbo fits well into this picture. Sulake and TMG are facilitating users to be active in all sorts of ways. To create a solid community, a basis for their existence, they try to activate their users in various ways – for example by facilitating discussion, but also by inviting their users to become active in competitions. And since the producer is responsible for safety in the community, they are taking both technical and social measures to ensure the safety of their users.

Habbos are active on different levels. In this chapter, both a more ‘traditional’ role (communicating) and a more active role (creating) are analysed. Creation is defined in an everyday way. Three levels of creating are distinguished, from less active to more active: adjusting, organizing and creating. At the lowest level of creation all Habbos are active by adapting their characters and designing their rooms. As the options are limited, Habbos invent alternatives. They often have several avatars and creative ways of obtaining furniture. A smaller group of Habbos is active on the second level of creation – initiating and organizing their own activities. For example, they initiate competitions, fashion shows, plays and games. At the highest level of creation, also many activities take place. Some of these activities are not visible in the social world, but are created outside of Habbo, where users have more freedom. By creating content

becoming a Habbo club member. According to Sulake, Pixels can be used to buy special effects or special furniture to be incorporated in their own room or surround their own avatar for a specific period of time.

both inside and outside the borders of Habbo, users are active in more ways than was envisioned or pre-structured by the Habbo organization. By communicating, organizing and participating in activities and inventing things like jobs and contests, Habbos and producers mutually shape Habbo.

Communication and the social aspect of meeting and chatting with new people is the most important aspect in Habbo. Although communicating is a rather 'traditional' consumer activity, online communication also offers a lower threshold for talking to the producers. This makes the distinctions between producers and users hard to determine. Users have the opportunity to contact the producers while they are in Habbo (in case of, for example, reporting abuse), but they can also contact the Habbo staff by writing them a message. Many users make use of this opportunity. This provides the producers with a constant stream of messages they have to deal with.

6.7.2 User/producer relations in Habbo

In the Habbo case study, user/producer relations are explored on different levels. Regarding roles (as discussed above), producers primarily fulfil facilitating roles. This is similar to the outcomes of the previous chapter. In general, producers of media entertainment services do not engage in content creation, but act as platform providers, making the community freely available, ensuring safety and keeping an eye on quality of service. Users take on more creative roles and have an active part in shaping the online environment and the culture within a virtual world, playing with the building blocks that are provided by the producers. They are first of all consumers of content, but also fulfil a variety of other roles.

On a financial level, users are providing the producers of Habbo with income. Online services can employ various revenue models. Habbo generates most income from the sale of Habbo credits. This revenue model is different from most media services, which offer their content for free. Habbo only offers the platform for free. For extras (content), users need to pay.

Until now, only a small percentage of users are willing to pay for online content (like *furni*). But when the user base is large enough (as in the case of Habbo), this percentage will provide businesses with enough income to become profitable. This underlines that advertising is not the only revenue model that is viable for online services.

Although Habbo generates most income from user payments for furniture, they employ users to generate value and income on different levels as well. In the first place, they sell their users to advertisers (a traditional way for media to generate income).

Secondly, they offer third parties the opportunity to conduct research among the community members. In that sense, the large part of Habbo users who are not paying for the service do provide essential value for the community.

It needs to be underlined that Habbo is a controlled and ordered environment. Technology is not only an enabler of interaction, but is also used as a constraint. The Habbo management, for example, uses technology to set boundaries. Users can only customize their character and pick furniture from a limited set of options. And as facilitator of the service, Habbo has the responsibility to make Habbo as safe an environment as possible. This limits the possible actions of users – as has been discussed in the safety section. Users are not allowed to use certain terms of abuse and are monitored when there are only two Habbos in a room. But Habbo users always seek the boundaries of these constraints, or try to circumvent them. They try to script items into Habbo, or they invent tricks to by-pass the word filter so as to be able to swear.

This chapter has shown in more detail how one of the youngest groups of internet users, all belonging to the net-generation, the digital natives, are active within the virtual world of Habbo. The Habbo users belong to the group of users that is most active online. They grew up with digital technologies and spend more time online than older internet users. Like no other user group, they embody active internet use. They have domesticated digital technologies and use the internet as a tool (the third articulation) in a participatory culture. Unlike many adults who are not used to virtual communities, virtual furniture and virtual currency, Habbos find it completely normal to pay for virtual objects in virtual surroundings. They have found their way in the virtual world of Habbo, and the more experienced users help the newcomers to learn the written and unwritten rules of Habbo. Within the sometimes limited Habbo surroundings, users learn how to express themselves and engage in various activities. They get to know the boundaries of Habbo and sometimes move beyond the virtual world itself, by extending activities into their analogue lives, or other digital settings, for example by making a fan website.

These outcomes are in line with the other two empirical chapters in this dissertation. Just like many web 2.0 services, Habbo places the user at the centre of their service. The producers do not provide all the content themselves, but enable the users to do so. They need to balance between giving users complete freedom, and maintaining some form of control over the activities of their users. Specifically given the young age of Habbos, safety is of major importance. In Habbo, users are enabled to engage in many different activities. They could be classified according to the general divisions presented in the theoretical chapter, like the *hanging out*, *messing around* and *geeking out*

categories of Ito et al. (2010). But this classification leaves less room for the rich variety of roles and sub-roles that are shown in the analysis of Habbo behaviour. Within the main roles that are defined in both this chapter and the other two empirical chapters, there can, for example, be distinguished many differences in effort needed to perform certain activities.

Unlike the positivist discourse surrounding user practices, the analysis in this and previous chapter has shown that not all users are willing or able to become content producers themselves. The activities that require less effort are generally more popular than more specialized, more creative activities. It seems as if creating original content is reserved for a smaller part of the users. Even the youngest group of internet users are not all prosumers. This outcome was also apparent in the previous chapter, when the user survey was analysed.

The more detailed and quantitative analysis of the Habbo case has shed light on the way users behave within the context of Habbo and the way they relate to the producers on various levels. Within this relation of mutual shaping, some Habbos look for the loopholes in the system. They have an alternative interpretation of the way the system should work, and they sometimes try to bend the rules. This makes the relationship between users and producers in Habbo dynamic, and clearly distinguishes it from the traditional consumer/producer relation in analogue media. It also indicates that, unlike in the products as studied in the SCOT approach, any closure of social surroundings is absent.

7 Conclusion: the extended media consumer

*"Look," said Roark. "The famous flutings on the famous columns--what are they there for? To hide the joints in wood--when columns were made of wood, only these aren't, they're marble. The triglyphs, what are they? Wood. Wooden beams, the way they had to be laid when people began to build wooden shacks. Your Greeks took marble and they made copies of their wooden structures out of it, because others had done it that way. Then your masters of the Renaissance came along and made copies in plaster of copies in marble of copies in wood. Now here we are, making copies in steel and concrete of copies in plaster of copies in marble of copies in wood. Why?" (Ayn Rand, *The Fountainhead*, 1943).*

In the book *The Fountainhead* (1943), Ayn Rand's protagonist, architect Howard Roark, battles conformism and tradition. Unlike his contemporaries, he does not build on the classical laws and style icons of the Greeks and Romans, but makes optimal use of modern building techniques. In his work he is guided by function instead of form. As an individualist, Roark is diametrically opposed to architects who, without reason, copy old style traditions in their construction drawings. As the quote above clearly illustrates, he does not see the benefits of this. Applying old frameworks to analyse new possibilities and developments, the aspect Roark battles against in *The Fountainhead* is what McLuhan (1964) calls the 'horseless carriage syndrome'. New developments cannot be understood while projecting old thinking patterns onto them. When confronted with new technologies, the horseless carriage syndrome is often symptomatic of the way traditional companies face new challenges in their field. They try to copy their old business model onto a new environment, or transfer their old products to, for example, an incrementally changed version.

The subject of this study is the changing role of users and the changes in traditional consumer/producer relations in online media services. In the introduction to this dissertation, it was explained that developments in the digital domain, just like modern architecture does in *The Fountainhead*, evoke a lot of discussion. Historically speaking, that is not surprising; every new media technology - film, radio or television – gives rise to a debate in which utopian and dystopian views oppose each other. In these transition periods, existing norms and values and established rules come under pressure. For example newcomers enter the field and organize their business model differently. Such an introduction period is a time in which acquired rights are under discussion and old

ways of working change, just like the needs of consumers. Also the interplay between new technologies and society is still in flux. Players in this new societal framework need to (re)adjust and find their position again. Especially when it concerns a competitive field, this does not always happen without a struggle. In the case of the introduction of the internet in our society, Jenkins (2006) mentions the development of a new converged and participative culture; a culture with new values, new rules, and new roles for users. Since the large scale diffusion and use of internet in the western world, producers are forced to rethink their own roles in relation to the users and these new surroundings.

Among utopians (or investors) the expectations surrounding new technologies are often high. As Perez (2002) showed, these expectations might lead to *frenzy* - a situation in which the investments exceed the actual value of start-ups many times. This mismatch eventually leads to a crash in the market. The reality turns out to be less rosy than expected and technological expectations and societal reality do not match at all. After the market crash, the market normalizes and the old world and the new world merge. By then, it appears that the changes might not have been as radical as previously assumed. Nevertheless, a number of disruptive shifts may take place, because of which producers will be forced to change their production processes. We have seen a similar development in the media sector.

7.1 Outline

The central research question of this dissertation is: ***To what extent have user roles and traditional consumer/producer relations in the media sector changed since the adoption and deployment of computers and the internet?*** This dissertation provides an answer to this question in five parts. Chapter two of this dissertation presents a basic historical analysis (based on a literature review) of the developments in the media landscape since the 1980s. This analysis shows changes in five media domains: (1) music, (2) photo, film and video (3) broadcasting, (4) press and (5) games and social networks. The third chapter contains an overview of academic literature covering user roles and user/producer relations. This analysis shows that various research traditions touch upon the central subject of this dissertation. After the introduction, the historical contextualization and the theoretical chapter, the developments in the media domain, changing user roles and online user/producer relations are explored in three empirical studies. Quantitative content analysis is used in chapter four to analyse what new possibilities online media services offer to users and producers. Because this part only sheds light on the *possibilities* users have in online media services, but not on the actual

use that is made of these possibilities, a third empirical study - an online user survey - is conducted to clarify the actual use of online possibilities. The final empirical chapter (chapter six) is a case study that describes user/producer relations in the specific online environment of Habbo in a more in-depth way. These empirical studies have shown to what extent user roles and consumer/producer relations have changed in the media landscape since the large scale adoption and use of computers and the internet.

In the concluding chapter of this dissertation, the results of the five parts are used to illustrate and clarify these changes. This conclusion roughly follows the two underlying objectives of this dissertation - as explained in the introductory chapter.

Firstly, attention is paid to the concept of user roles in academic literature and the way this dissertation contributes to conceptualizing a broad palette of user roles. One of the most important conclusions of this dissertation is that consumption roles are still very important in online media services, but they can be conceptualized as extended. Consumption roles have diversified online, and are being supplemented with a large variety of other roles throughout the value chain. Furthermore, although there is participation inequality in the sense that not all users engage in all activities offered in media entertainment services, the often referred to 90-9-1 rule (Nielsen, 2006) is problematized in this dissertation because it seems unfit to describe the actual practices of users in the online domain.

Secondly, this conclusion will provide insight into changed user/producer relations in online media services. Important insights from the empirical studies are that user/producer relations are dynamic and take place on various levels. Whereas producers primarily fulfil facilitating roles, users assume important roles in the production of value. The interaction between users and producers can be characterized as a process of mutual shaping, but, unlike conceptualizations in social construction of technology studies, the process of closure is not final. Because of this increased interaction between users and producers and the fact that producers have access to a large amount of user data, services are always open to adaptations.

At the end of this conclusion, the shortcomings of this research are discussed and future research directions are proposed.

7.2 The diversification of user roles

The newest (online) media differ in various ways from old media like newspapers, radio and television. One of the most important differences, as indicated in the literature and

stemming from the analysis in the empirical chapters, is the interactive possibility of online media. Instead of sending a one-to-many message, online media enable interaction between users and producers, but also among users. This has ensured that the double articulation of the audience - as (1) spectators of media messages (and advertisements) and (2) as consumers of media technologies (Livingstone, 2007; Silverstone, 1994) - can be supplemented by a third articulation: the people in the audience have the opportunity to become participants. Especially in the years following 2004, online media services have increasingly paid attention to this possible third articulation. The options users have online have broadened. The underlying characteristics of participation are not new, but because of the opportunities and tools internet technologies offer, participation is possibly easier, occurs on a larger scale and is sometimes also more efficient and effective.

Researchers such as Jenkins (2006), Bruns (2008) and Deuze (2006) study user participation online as well. As opposed to research paradigms that take the first two articulations of media users as a starting point, these researchers look at activities that go beyond consuming media technologies or interpreting media messages. Media users are conceptualized as empowered in the sense that they have control over processes of which they have not yet been in control before (Punie, 2011). New media technologies offer users the tools for participation. Various research strands originating from the first two articulations, paved the way for a better understanding of active use and participation. The field of the Social Construction of Technology (SCOT), for example, studies the relationship between users and technologies (e.g. Pinch & Bijker, 1987; Bijker 1995). The domestication approach takes this idea one step further by unravelling the consumption process and researching the relationship between users and technological artefacts in their everyday surrounding. Researchers working in these fields abandon the idea of innovation as a linear process, and ascribe to users an important role in shaping the use and meaning of technology (Silverstone et al., 1992; Haddon, 2007; Silverstone, 1995, Hynes & Rommes, 2006). Both approaches stress the importance of users and have thus contributed to the development of a conceptual framework in which active user roles, not only in dealing with technology but also in shaping online services, are more apparent.

Since the diffusion and adoption of new media technologies, especially the internet, approaches that grant users a central role have expanded (it is striking that these two developments take place at the same time). One example is provided by researchers who try to analyse and describe the general cultural change as a whole, or within specific domains. Researchers embarked on an endeavour to describe the shape and

consequences of this new information economy from, for example, a sociological (e.g. Castells, 2000; 2001) or economic (e.g. Benkler, 2006) perspective. Around 2004, the web 2.0 concept was coined as an umbrella term under which a large number of new online services could be included (O'Reilly, 2005; Slot & Frissen, 2007; O'Reilly & Battelle, 2009). The central idea of the web 2.0 concept is that the internet functions as a platform on which users have control over data, and online services are characterized as participative. This development inspired various authors to analyse and explain the implications of internet technology and active users for specific domains, for example, for innovation (Leadbeater, 2008), information (Weinberger, 2007), collaboration (Tapscott & Williams, 2007) or business models (Anderson, 2006; Anderson, 2008). Jenkins (2006) introduced the concept of convergence culture, a new paradigm that allows for changes in the media landscape to be better understood. According to Jenkins and others, convergence mainly is a social process in which users are increasingly participating in media production and the boundaries between users and producers are fading (e.g. Jenkins, 2006; Deuze, 2006). This is also one of the preliminary assumptions of this dissertation.

Over time, multiple concepts were coined that specifically underline user activities. Proams (Leadbeater & Miller, 2004), prosumers (Toffler, 1980), produsage (Bruns, 2008), user-generated content (OECD, 2007) and co-creation are examples of these concepts. They imply various quality levels of content production, but have in common that they show that consumers can also become producers. Users can - even on a professional level - create content themselves, or cooperate with companies to shape products or services. These concepts suffice to indicate a general expansion of user roles, but do not do justice to the diversity of media users and uses. In the past few years, special attention has been paid to the activities of users in social networks. With the large-scale adoption and use of social networks such as Facebook and Twitter, concepts such as collective intelligence or the wisdom of the crowd have gained more importance in research articles.

The conceptual chapter showed that some researchers analyse diversity of user practices in more detail. They have shown (and are still showing) that user roles are varied. Researchers, for example, have developed typologies to classify various users, based on their activities (e.g. Van den Beemt, 2010; Brandtzaeg 2010). By using these typologies, they sketch an image of internet users, or the generation of digital natives (Prensky, 2001). Typologies are used to come to a number of recommendations about deploying digital learning materials in education or to help designers in human computer interaction studies to create suitable services for different types of users.

Various researchers have made classifications in which users are grouped in terms of other characteristics, such as activities (Schols et al., 2011; Shao et al., 2009; Ito et al., 2010). Most publications provide a classification on three activity levels; roughly defined as consuming, contributing and creating. In these researches, internet users are divided into one of these classes based on their main internet use. Providing a classification of various roles implies that not all roles require a similar amount of (creative) effort from the users. The conceptual idea that generally underlies these approaches is the notion that not all internet users are equally active. This is also an important outcome of this dissertation. One often mentioned concept in this respect is the 90-9-1 rule (Nielsen, 2006). This rule of thumb states that online services have various types of users, of which a very large part (ninety per cent) is inactive and only consuming (called lurkers), a small minority (nine per cent) only sometimes participates and merely one per cent creates the largest part of all content. Nielsen calls this *participation inequality*.

7.3 Extended media consumers

As such, the approaches summarized above are very valuable - for example when studying the specific user activities in one particular online service. But when analysing the activities of internet users as a whole, from a user perspective and not from a service perspective, these approaches are not adequate. This dissertation has, above all, shown that media users can take on a large number of roles online. Although consumption is still the most offered and most easily taken up user role in online media services, the number of activities users can engage in is much more diversified than only consumption and production. And the main roles defined can be divided into a range of sub roles/activities. Within the context of online media services, with the computer, tablet or mobile phone as a converged tool and the internet as a connection, the options for users to engage in these activities are numerous. The users are flexible in changing between roles when they use different services. Whereas in some services they remain consumers of content, in other services they will act as content producers, or they facilitate other users by tagging content. In that respect, this dissertation complements existing research on user roles, both in media studies and in technology oriented studies.

Based on the research in this dissertation, online media users are therefore labelled *extended media consumers*. Extended can be interpreted in multiple ways. Firstly, users are extended because, more than consumers of traditional media products, they have access to a large amount of online media content. Secondly they are extended because they have access to this content through a variety of media technologies and platforms.

Thirdly, they are extended because they are facilitated by technology and producers to perform multiple other roles besides consuming. An important insight of this dissertation is that consumption is not replaced by production, but is still a very important user role. Consumption practices diversify extensively, and are complemented (not supplemented) by other user roles. Based on the research results of this dissertation, this will be further explained below.

7.3.1 Increased opportunities of choice and platforms

The online offer of media content has grown exponentially since the 1990s. This has sharply increased the range of choices for media users. Because of digitization, all sorts of media content can be found online. Television broadcasters place their programmes (or parts of it) online, newspaper publishers offer their news articles, and record companies their music via online music services (e.g. iTunes) or streaming services (e.g. Spotify). The historical chapter showed that various parties in the media landscape battle for the attention of the media user. Incumbents have expanded their services to the online domain. Online, they have access to an international audience and find each other as competitors. Subsequently, a large number of new services have been set up that offer users a platform on which to consume media content. On websites like Youtube and Flickr, content is largely generated by the users themselves. The historical chapter showed the increase of user-generated content platforms. Users thus have more content on offer and more websites where they can find this content.

Chapter five showed that all internet users who filled in the online survey are consumers of media content. The inventory of online consumption activities showed a diverse picture. More than 90 per cent of the respondents buy analogue media products online, like a book or a CD. But they also consume digital media content. More than 80 per cent of the internet users watch television or read the news via the internet. More than half of all respondents download music and almost 80 per cent visit social networking sites.

Increased opportunities of choice are not only applicable to the accessibility of content, but also to the ways users can interact with this content. Ever more people have access to personal media with an internet connection. Computers, laptops, netbooks, tablets and mobile phones are an important part of everyday life. The research results from the user survey in 2008 showed that one out of three respondents had a mobile phone with an internet connection. In 2012, this number is even larger. OPTA (the Dutch Onafhankelijke Post en Telecommunicatie Autoriteit) reported that the Netherlands accounted for 19.2 million mobile phone connections in 2011, of which 8.2 million also

had an internet connection (Van der Giessen, Van der Plas, Van Oort & De Munck, 2011). This dissertation showed that especially the younger user group makes extensive use of the internet. Almost seventy per cent of the respondents in chapter five indicate that they organize their media time differently because of the internet. In addition to a different organization of media time, users also make other choices in their consumption behaviour. Based on sales figures, the historical chapter showed that in the music industry, online consumption practices have shifted: instead of full music albums, online users buy more often singles. This negatively impacts the revenue streams of the record companies.

7.3.2 Consumption plus...

Although consumption seems to be the main component of online services, the fourth chapter of this dissertation showed that producers provide a whole range of other possibilities in their services. The possible roles differ per service and some types of web services offer certain user roles more often than others. Some examples: more than sixty per cent of the services offer users the possibility of creating content. Often, these options are enabled by photo or video websites and social networks. Social networks also offer their users the possibility of personalizing their services. Music services, for example, offer these options less often. News services allow users more often to add information to editorial content. Users are enabled to facilitate in ninety per cent of all services analysed in the fourth chapter. They can, for example, add a tag word or set up an RSS feed so they can stay informed of changes in the large (and sometimes confusing) online offer.

The quantitative content analysis in chapter four shows online possibilities, but not actual use. Technology facilitates certain user roles, but possibilities alone do not determine how users behave. Theories like the 90-9-1 rule indicate that users do have a large number of options online, but only a small part of all users actually participate. According to this rule, most users, called lurkers, are more likely to sit back and rather passively consume online content (Nielsen, 2006). But the research results in chapter five indicate that the 90-9-1 rule can be put into a more sophisticated perspective. Because, although only 15 per cent of participants of the online survey agree with the statement that they actively participate online, the results of the user survey in chapter five show an active self-image of the average internet user. Up to 94 per cent of the respondents indicate that they create or personalize content on a particular website. All users also indicate that they communicate. In chapter five, these main activities are further analysed and the results showed which sub roles can be placed under these main categories. It appears that users in the create category are active in on average

four different sub roles. More than seventy per cent of all users have a profile on a social networking site that they customize regularly, more than forty per cent edit photos online and 37 per cent have a personal website.

7.3.3 The 90-9-1 rule in perspective

Thus, if we took a literal definition of the 90-9-1 rule as a hypothesis, the research results in this dissertation would prove it wrong. It is not just one per cent of users who really actively participate in online media services. In all age groups, the percentage of active participants is much higher. But it is not the most important thing to show whether the percentages given in this rule are true or false. What is more important is the research outcome that users assume many other roles. This dissertation tries to show the diversity of users and user roles. Most respondents in chapter five are public, community and active participant at the same time. Producers offer a lot of online options for participation and there are many online media services available. Users can take on various roles in different media services. The conceptual chapter of this dissertation showed that discourse about active users often covers the producing role that users can perform. Although this role indeed is most common after consuming and communicating, it is not the only role. The research results of this dissertation show that ninety per cent of the respondents assume a facilitating role; sixty per cent contribute to online media services and about one third actively share content with other users. Three quarters of the users sometimes send content to other users, 58 per cent vote for specific content, and twenty per cent add information to websites. Also the Habbo case showed that users take on facilitating roles. Habbo users, for example, help other Habbos find their way in the virtual world.

Nonetheless, this final point can be nuanced. When the results of the online survey are studied in detail, it appears that different activities (or roles) of users can be assigned to different levels of effort. Indeed, writing a weblog requires more effort than changing a profile picture on a social networking site. When all activities are classified into three effort categories, from high-level to medium-level to low-level participation, it shows that low-level and more traditional ways of participating, like consuming content, communicating and personalizing, are the most popular activities. Users are often active in these kinds of roles. On average, fewer users are involved into high-level and creative ways of participation such as creating websites or uploading self-made videos. This can also be found in the Habbo case. Most Habbos are active in customizing their avatar. Less often they are engaged in creative activities like making a Habbo alteration.

Also participation differences exist between user groups. Various writers indicate that younger generations differ from older generations in the way they deal with online media (e.g. Prensky, 2001; Van den Beemt, 2011). Digital natives, after all, grow up with computers and the internet. The research results presented in this dissertation support this. Within the user population, differences exist in the use of internet. Whereas the average users spend on average one and a half hours online in their spare time, young people (under twenty five) spend on average two hours and fifteen minutes. Additionally, they often assess their own digital skills as good. They can find their way online and know basic computer programs like Microsoft Office. Internet and new media technologies are, in short, embedded in their daily lives. Younger users spend significantly more time online in their free time than older users but also age differences are apparent in the level of participation. Gender differences and differences in skills and adopter type seem to be less evident than age differences. Younger users are, for example, more active on social networking sites and also more active in creating content. Chapter five showed that younger users not only assume certain roles more often, but also that they take on more active (or less traditional) user roles.

But even this having been said, the options for users of all ages to participate online have expanded and this has changed existing consumer/producer relations. Hence the title of this thesis; users are above all extended consumers. It is important to acknowledge that online user activities go beyond the passive-active dichotomy. Showing more complexity in the analysis of user roles and revealing details about internet use are important for analysing current and future developments.

7.4 The relationship between users and producers online

Before the breakthrough of social or participative media, the value chain was a suitable metaphor to describe the relationship between consumers and producers in the media landscape. But ever since the diffusion and adoption of internet, the linear value chain is increasingly replaced by a value network. In this conceptual framework, the notion of a linear production process with the producer at the beginning and the consumer at the end of the trajectory is replaced by a more chaotic and diffused interplay between various actors who all add value to the product or service. Users are enabled to add value throughout the whole process.

Users and producers can develop various relations online. In this dissertation, four levels are defined, based on a general business modelling framework. The first level is

the way value is generated by a product or service. The second level is the way in which actors work together – and what roles users and producers play. The third level is the technical structure of a service (for example whether users are enabled to make changes). And finally, the last level analyses revenue models and the way producers make money with their services. The analysis of this dissertation focuses primarily on user and producer roles. The value of media services, the technical options and financial aspects play a role of minor importance, but will be briefly discussed when it is relevant to understanding changing user/producer roles.

7.4.1 Shifting user/producer roles

This dissertation shows that, compared to traditional roles of media producers, internet makes possible significant changes in the roles and activities of producers. Although even today traditional media companies still dominate the market for blockbusters and hits, their gatekeeping role has become less important. New companies like Google, Apple and Facebook, and a vast number of small, specialized websites have partly taken over the mediating role of media multinationals. When users want to see a trailer of a new film, they go to Youtube and not to the website of the film producer. News messages of various newspapers are read on Google News. Music, films and games are shared through peer-to-peer networks. Techniques like collaborative filtering allow users to listen to content of users with (partly) the same taste, or users send or recommend content directly to one another.

But this does not mean that traditional media have become irrelevant. The fear that traditional media will disappear due to the large amount of free online content and the replacement of traditional media by new media seems unjustified. The results of the user survey indicate an intimate relation between offline and online media use; when internet users employ more activities offline, they are also more likely to be active online. Almost sixty per cent of the respondents are not convinced that the internet will replace traditional media. Up to 85 per cent of the respondents think traditional media companies are still necessary for content production. They think these companies will not go bankrupt because of the online behaviour of internet users. This does not mean that companies are not struggling to maintain their existence in this transition period. They still need to reinvent their business model. And especially coupled with the economic downturn, this is not always an easy task. But they can remain confident that the need for media content will not disappear.

A second change with respect to traditional media companies is the fact that producers of many online media services do not create content. In 75 per cent of the services that

were analysed, the producers offer a platform in which content can be found that is created by others (the users for example). Making and uploading content is more often done by the users (more than sixty per cent) than by the producers (14 per cent). This implies that in online media services the producer primarily takes on a facilitating role. And that the so-called dialogue between users and producers, as mentioned by various researchers, in fact is a dialogue between users. The same holds true for classifying content (for example by adding tags). In fifty per cent of the cases producers leave this role up to the users to perform. In only twenty per cent of the media services is this role performed by the producer. Also the Habbo case shows this role shift. Habbo primarily offers users a platform to get to know other people. The Habbo management tries to facilitate this interaction as much as possible, for example, by introducing activities but also by guaranteeing safety in their virtual world.

The fourth chapter of this dissertation showed that many online services, unlike their traditional counterparts, contain community aspects. One feature of this way of organizing is that users interact with each other more often than with the producers of a service. In eighty per cent of the online media services, users primarily interact with each other, not with the producers of the service. In two thirds of the services, users have the opportunity to share content with each other. Also the Habbo case study shows that the main value of the service for users is the opportunity for interaction with other users. These research results should invite producers of online services to make better use of the possibilities for interaction. Especially traditional media could take on this role of establishing a direct link with their audience. Up until now, services are leaving the initiative in interactive efforts to their users.

Almost seventy per cent of the respondents of the survey in chapter five indicate that it is now easier than before to communicate with the producers of online services. This is also an outcome of the Habbo chapter; 55 per cent of the Habbos indicate they have had contact with the Habbo management. This happens through many channels, like e-mail and telephone. But also within the virtual world staff members are active. They can be summoned by users when something happens that they think is not okay. And when users interact with producers in the virtual world itself, it can be said that the relationship between user and producer has become public instead of private. The same holds true for communication between users and producers (companies) via Twitter or Facebook. The users not only talk back, but the conversation can be listened to by everybody. In the process of communication between users and producers, they engage in a process of mutual shaping. By communicating directly with the producers or by leaving digital traces of the use of certain services, users provide producers with a

constant stream of information that can be used to adapt their services accordingly. In an age of participation and data tracking, this development will not easily come to an end.

But still, the openness of media services should not be overestimated and the power of media companies should not be underestimated. As Jenkins and Deuze (2008) already stated, convergence is both a bottom-up and a top-down process. Also online media services know how to bind their users in various ways. The quantitative content analysis in chapter four shows that, although 97 per cent of the services are easy to use, only 18 per cent are non-exclusive. Producers can, for example based on the IP-address of their users, exclude certain users from participating. Also users need to leave their personal data to get access to the service. Only a very small part of the media services use open source software.

The historical chapter of this dissertation showed that in the media landscape, income from traditional revenue sources has dropped. Do participative possibilities turn the media economy upside down? In a certain sense this is true. When users can get content online for free, such as music, films or games, the majority will not pay for it. But at the same time, new revenue models are successfully implemented. One example is Habbo, which generates an income provided by only a small percentage of the total user base. By offering a freemium model (basic service is free of charge, additional services have to be paid for), Habbo is able to generate a large community and enough income at the same time. Some online media services have decided to share their revenues with their users, because they provide all the content. But, when media companies are not able to adapt to the changed circumstances, or the activities of users, they run the risk of losing their business.

7.5 Final remarks and possible directions for future research

Over the past years, this dissertation was written against a dynamic societal and academic backdrop. Although many western households already had internet access in 2005, most people had not yet heard of the buzzword web 2.0. Furthermore, doubts existed whether users would ever become important actors online. Until then, they were primarily conceived as being a disturbing factor for revenue models by illegally downloading music on a very large scale. But through the years, the importance of the activities of online media users has drastically grown. Especially the exponential popularity of social media has altered the circumstances for online media use. Many social networking sites gained popularity, as did platforms for user-generated content

such as Youtube, Blogger and Flickr, services such as Spotify, Foursquare and Layar and new and mobile media technologies such as smartphones and tablet computers like the iPad. Now, in 2013, active users are no new phenomenon anymore but visible in everyday practice, and the discussion has shifted from whether users are active to the possible implications of or motivation for these user activities.

Doing pioneering work in a new research field is challenging and requires creativity and flexibility. This exploratory research has shed light on the subject matter from a number of angles, while not always following the beaten track in doing so. The same phenomenon is explored from different angles, various conceptual insights are combined and new methods are used (such as virtual discussion groups). This has resulted in a varied collection of worthwhile research material. Meanwhile, conducting research in an ever changing landscape also means that the research subject is always in flux. It is impossible to keep on incorporating the most recent developments, available research and literature in the analysis. In the past years, a lot of books and articles were published on the subject of this dissertation (e.g. Jenkins, 2006; Tapscott & Williams, 2006; Weinberger, 2007; Keen, 2007; Anderson, 2008; Levine, 2011). This book is thus published in the humble recognition that part of the developments described are already outdated by the time it will be read.

Besides the impossibility of providing a complete and up-to-date overview of the literature, there are some limitations to the research approach that need to be mentioned here. Methodologically, the empirical part of this research is descriptive and exploratory and can only produce preliminary results. The way the respondents are selected, but also the underlying analysis, allow to draw many tentative conclusions on the use of online media services. But it needs to be realized that these results should be further tested in follow-up studies. For example the categories of main user roles and sub roles can be further analysed to see to what extent they can form scales. Furthermore, the quantitative content analysis in the fourth chapter stems from 2009, and might already be outdated by now. It will be interesting to generate another cross section analysis of existing web services. Not only new services, but also services from incumbents could be included, supplemented with services designed for the tablet and mobile phone. Especially the research outcome that the initiators of web 2.0 services do not create new content but rely on the content generated by their users, is interesting. In a time of passionate discussions about the ownership of content and copyrights, and with revenue models under stress, the question about digital content and who pays for it, is an interesting one. Also, the way revenue models of media companies are going to

evolve is an interesting research subject. Companies might increasingly guard their content against unwanted guests.

Secondly, the user survey in chapter five might give occasion for a follow-up research. Since the outcomes are biased in terms of age (young) and education (high), a more representative sample of respondents should give a better overview of the population of internet users. Also, since the differences between age groups are the most eye-catching, a longitudinal study is in order. Will the group of youngest internet users stay as active as they are right now? Will internet use further develop? Will the new generation of internet users engage in other activities? The new developments with tablets, ultrathin laptops and smartphones need to be taken into account too. And a natural follow-up to the quantitative research will be a shift from what people do to why people do it. Motivations were not examined in this dissertation. Especially the question why some people take up activities that require a lot of (creative) effort without being paid for it is an interesting one. Also, knowing the motivations for users to participate will be interesting for producers of media services. As explained above, motivational aspects are part of the current research on creative activities of teenagers online.

Despite these shortcomings, the various studies presented in this dissertation serve to create an image of the first pioneering practices of user participation in the online domain, shed light on changed user/producer relations and are an impetus for more research into this field. The strength of the dissertation lies in the variety of data and the exploration of the complexity of user roles and user/producer relations in the context of online media services. Two aspects of the study have already led to new research, both at research institute TNO and at the Erasmus Research Center for Media, Culture and Communication (ERMeCC), part of the Erasmus School of History, Culture and Communication (Erasmus University Rotterdam).

Firstly, within TNO, the idea of analysing possible user and producer roles in online services has initiated a two-year study of eParticipation services in the Netherlands. Funded by the Dutch government (Burgerlink, ICTU), an online web tool was developed that served as a means to analyse the level of citizen participation in government and citizen services directed at eParticipation.⁵⁷ The tool was used to compare existing services in the Netherlands on a number of predefined variables. This analysis was then

⁵⁷ eParticipation is the use of information and communication technologies to support and stimulate participation of citizens in society.

used to select nominees for the eParticipation awards in 2009 and 2010.⁵⁸ An adaptation of the webmonitor was also used for an analysis of Dutch government organizations, and provided the basis for the election of government organization 2.0 of the year.⁵⁹ The quantitative content analysis framework for analysing web services has also been employed in a two-year research project about innovations in the news sector. In this project, called Designing the Daily Digital, Hogeschool Zuyd, Hogeschool Utrecht and TNO cooperated. The framework was used in one of the sub projects to analyse the innovativeness of online news services of incumbents and newcomers.⁶⁰

Secondly, the research results of creative activities of Habbos have been a motivation to start a research project on creative activities of teenagers online. The internet use of teenagers has evoked much discussion among parents, caretakers, teachers and researchers in the Netherlands. Media often report on the negative effects of this internet use; children are victims of cyberbullying or pedophiles online, there is the risk of internet addiction and also virtual worlds such as Habbo are in the media when scammers hack into accounts of users and steal their virtual belongings. But internet use of teenagers is not only negative. To generate a more in-depth account on online teen activities, the research (partly funded by the Dutch program Digivaardig & Digibewust and Mediawijzer.net) generates more insight into creative behaviour of teenagers online. The first part of the research was directed at focus group research to explore in more depth the creative activities and motivations of teenagers online. The second part of the research is more quantitative in nature. A user survey is conducted in which the outcomes of the focus groups will be further studied.

In conclusion, this dissertation has explored the pioneering activities of internet users just after the coining of the web 2.0 concept. It has generated new insights into the activities and roles users perform in online media services. It has provided additional knowledge to complement existing research. It has shown that possible user activities have extended and diversified online, but also that not all users want to become prosumers or co-creators, and consumption is still one of the main activities of internet users. This dissertation sheds light on the various levels on which users and producers interact and the way these interaction possibilities are extended compared to analogue media services. According to Perez, we are now in the deployment period of the internet. It is part of most people's everyday life, at least in the western world. Many

58 <http://www.eparticipatiemonitor.tno.nl/>.

59 <http://ambtenaar20.ning.com/page/verkiezing-1>.

60 see <http://www.dailydigitaldesign.com/en/>.

young people are online twenty-four hours a day via their smartphones. Most people need a computer to be able to work. People shop online, take care of their finances, communicate and find new partners online. But with computer chips becoming smaller, faster and cheaper, we are still only at the beginning of a truly connected age. Discussions about the impact of new developments in media and our dependence on technologies will go on. And continuously extending our knowledge of user activities, motivations and the ways in which new media technologies and everyday life affect one another is crucial if we want to be able to assess the implications of these developments with care and common sense.

References

Abbing, H. (2002). *Why artists are poor. The exceptional economy of the arts*. Amsterdam: Amsterdam University Press.

Acquisti, A. & Gross, R. (2006, June). *Imagined Communities: Awareness, Information Sharing, and Privacy on the Facebook*. Pre-proceedings version. Privacy Enhancing Technologies Workshop (PET), Cambridge.

Adorno, T.W. & Horkheimer, M. (1947). *Dialectic of enlightenment. Philosophical fragments*. Stanford: Stanford University Press.

Allan, M. (2005, March). Het volk heeft zijn stem hervonden. *Vrij Nederland*, pp. 60-61.

Ammelrooy, P. (2007, Feb. 6). Hobbyfotograaf is kiekje voorbij. *De Volkskrant*. Retrieved from <http://www.volkskrant.nl/vk/nl/2694/Tech-Media/article/detail/835906/2007/02/06/Hobbyfotograaf-is-kiekje-voorbij.dhtml>.

Anderson, C. (2006). *The long tail. How endless choice is creating unlimited demand*. New York: Hyperion Books.

Anderson, C. (2008, February). Free! Why \$0.00 Is the Future of Business. *Wired* 16(3). Retrieved from http://www.wired.com/techbiz/it/magazine/16-03/ff_free?currentPage=all

Ang, I. (1985). *Watching Dallas: soap opera and the melodramatic imagination*. London, New York: Methuen.

Ang, I. (1991). *Desperately seeking the audience*. London: Routledge

Au, W.J. (2007). *Weekend feature: the how of Habbo Hotel*. Retrieved from <http://gigaom.com/2007/09/08/howhabbo-hotel-got-this-big/>.

Bakhurst, D. (2009). Reflections on activity theory. *Educational Review* 61(2), 197-210.

Bakker, P. (2005). File-sharing--fight, ignore or compete. Paid download services vs. P2P-networks. *Telematics and Informatics* 22, 41-55.

Ballon, P., Kern, S., Poel, M., Tee, R. & Munck, S. de (2005). *Best practices in business modelling for ICT services*. Delft: TNO.

Bangeman, E. (2008, April 3). Apple passes Wal-Mart, now #1 music retailer in US. *Ars Technica*. Retrieved from <http://arstechnica.com/news.ars/post/20080402-apple-passes-wal-mart-now-1-music-retailer-in-us.html>.

- Bar, F. & Riis, A. M. (2000). Tapping user-driven innovation: A new rationale for universal service. *The Information Society*, 16, 1-10.
- Barnes, S.B., (2006). A privacy paradox: social networking in the United States. *First Monday*, 11(9). Retrieved from <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1394/1312>.
- Baym, N. (2006). Interpersonal life online. In L.A. Lievrouw & S. Livingstone (Eds.), *Handbook of new media: student edition* (pp. 35-54). London: Sage.
- BBC (2007, 13 March). Blocker prize honours best blogs. Retrieved from <http://news.bbc.co.uk/2/hi/technology/6446271.stm>.
- BBC (2012, 12 April). Google profits higher as it announces stock-split. Retrieved from <http://www.bbc.co.uk/news/business-17697687>.
- Bender, M.T. & Wang, Y. (2009). The impact of digital piracy on music sales: a cross-country analysis. *International Social Science Review*, 84(3), 157-170.
- Benkler, Y. (2006). *The wealth of networks: how social productions transforms markets and freedom*. New Haven: Yale University Press.
- Bergman, S. & Frissen, V.A.J. (1997). De eindgebruiker bestaat niet. De dynamiek van het gebruik van ICT in het leven van alledag. *Informatie- en Informatiebeleid*, 15(2), 68-74.
- Berker, T., Hartmann, M., Punie, Y. & Ward, K.J. (Eds.). (2006). *Domestication of media and technology*. Berkshire: Open University Press.
- Bernays, E. (1928). *Propaganda*. Brooklyn: Ig Publishing.
- Bijker, W.E. (2010). How is technology made? – That is the question! *Cambridge Journal of Economics*, 34, 63–76.
- Bijker, W.E. (1995). *Of bicycles, bakelites, and bulbs; toward a theory of sociotechnical change*. Cambridge, Massachusetts: MIT Press.
- Bineham, J. (1988), A Historical Account of the Hypodermic Model in Mass Communication. *Communication Monographs*, 55(3), 230-249.
- Blomqvist, U., Eriksson, L.E., Findahl, O., Selg, H. & Wallis, R. (2005). *Report on technology versus usage and effects*. Retrieved from http://xml.nada.kth.se/media/Research/MusicLessons/Reports/deliverable_1.pdf.
- Boczkowski, P.J. (2005). *Digitizing the news. Innovation in online newspapers*. Cambridge Massachusetts: MIT Press

Boczkowski, P.J.& Lievrouw, L. A. (2008). Bridging STS and communication studies: scholarship on media and information technologies. In E.J. Hackett, O. Amsterdamska, M. Lynch & J. Wajcman (Eds.), *The handbook of science and technology studies* (pp. 949-977). Cambridge, Massachusetts, London, England: MIT Press.

Bolin, G. (2010). Digitization, multiplatform texts, and audience reception. *Popular Communication*, 8(1), 72-83. doi 10.1080/15405700903502353.

Book Industry Study Group (2007, 1 June). Book Industry TRENDS 2007 Shows Publishers' Net Revenues Rose 3.2 Per cent in 2006 to Reach \$35.69 billion. Retrieved from <http://www.bisg.org/news-5-36-press-releasebook-industry-trends-2007-shows-publishers-net-revenues-rose-32-per-cent-in-2006-to-reach-3569-billion.php>.

Borst, S. (2006, 13 February). Sulake experimenteert in Finland met Habbo tv. *Emerge*. Retrieved from <http://www.emerge.nl/nieuws/sulake-experimenteert-in-finland-met-habbo-tv>.

boyd, D. M. & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), article 11

Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and Beyond: From Production to Prodsusage*. New York: Peter Lang.

Bruns, A. & Schmidt, J.H. (2011). Prodsusage: a closer look at continuing developments. *New Review of Hypermedia and Multimedia*, 17(1), 3-7.

Cantril, H., Gaudet, H., & Herzog, H. (1940). *The invasion from Mars: a study in the psychology of panic*. Princeton: Princeton University Press.

Carr, N.G. (2007, 29 May). The ignorance of crowds. *Strategy + Business*. Retrieved from <http://www.strategy-business.com/press/enewsarticle/enews053107>.

Carr, N.G. (2009, July/August). Is Google making us stupid? *Atlantic Magazine* <http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/6868/>.

Castells, M. (2000). *The rise of the network society* (2nd edition). Oxford: Blackwell Publishing.

Castells, M. (2001). *The Internet Galaxy. Reflections on the Internet, business and society*. New York: Oxford University Press.

Caves, R.E. (2000). *Creative industries. Contracts between art and commerce*. Cambridge, Massachusetts, London: Harvard University Press.

CBS (2008). *De digitale economie 2008*. Den Haag: CBS.

CBS (2012, 15 June) Nederland Europees kampioen internettoegang. Retrieved from <http://www.cbs.nl/nl-NL/menu/themas/bedrijven/publicaties/digitale-economie/artikelen/2012-3636-wm.htm>.

Cebuco (2008, 30 August). Dagbladsites zetten opmars voort. Retrieved from http://www.cebuco.nl/cases/artikel/dagbladsites_zetten_opmars_voort/.

Chase, L. & Alvarez, J. (2000). Internet research: the role of the focus group. *Library & Information Science Research*, 22(4), 357-369.

Christensen, L.H. (2002). The 'impact' of interactivity on television consumption. – Stay tuned, visit our website, press the red button. Working paper Dublin City University. Retrieved from http://www.stem.dcu.ie/pdf/impact_of_interactivity.pdf.

Cloin, M., Kamphuis, C., Schols, M., Tiessen-Raaphorst, A. & Verbeek, D. (2011). *Nederland in een dag. Tijdsbesteding in Nederland vergeleken met die in vijftien andere Europese landen*. Den Haag: SCP.

Coffin, T.E. (1948). Television's effects on leisure-time activities. *Journal of Applied Psychology*, 32(5), 550-558. doi: 10.1037/h0061416.

Cohen, E. (2011, 23 June). Does life online give you a 'popcorn brain'? *CNN*. Retrieved from <http://edition.cnn.com/2011/HEALTH/06/23/tech.popcorn.brain.ep/index.html>.

Compaine, B.M. & Gomery, D. (2000). *Who owns the media? Competition and concentration in the mass media industry* (3rd edition). Mahwah: Lawrence Erlbaum Associates.

ComScore (2007, 5 November). For Radiohead fans, does 'free' + 'download' = 'freeload'. Press release retrieved August 2008 from <http://www.comscore.com/press/release.asp?press=1883>.

Croteau, D. & Hoynes, W. (1997.) *Media/Society. Industries, images, and audiences*. Thousand Oaks, London, New Delhi: Pine Forge Press.

Czitrom, D. (1982). *Media and the American mind: from Morse to McLuhan*. Chapel Hill: University of North Carolina Press.

Daugherty, T., Eastin, M. S., & Bright, L. (2008). Exploring consumer motivations for creating UserGenerated Content. *Journal of Interactive Advertising*, 8(2), 1-24.

DEG (2010). *DEG year-end 2009 home entertainment report*. Los Angeles: Digital Entertainment Group. Retrieved from <http://www.degonline.com>.

Deuze, M. (2006). Collaboration, participation and the media. *New Media and Society*, 8, 691-698.

Deuze, M. (2007). *Media work*. Cambridge: Polity Press.

- DiNucci, D. (1999). *Fragmented Future*. *Print*, 53(4), 32-33.
- Distripress (2005, September). *Press business*. *Press Business*, 1. Retrieved September, 2008, from http://www.press-business.com/pdf/2005_01_press_business.pdf.
- Downes, E. J., & Mcmillan, S. J. (2000). Defining interactivity: A qualitative identification of key dimensions. *New Media & Society*, 2(2), 157-179.
- Doyle, G. (2002). *Media ownership*. London: SAGE Publications.
- Ellis, J. (2000). *Seeing things: television in the age of uncertainty*. London: I.B. Tauria & Co. Ltd.
- Ferguson, D. (2006, June). *P2P file-sharing – the evolving distribution chain*. Presentation at the P2P Media Summit WDC. Retrieved from <http://www.dcia.info/activities/p2pmswdc2006/ferguson.pdf>.
- FIPP (2006). Digital editions on the rise. Retrieved from <http://www.fipp.com/news/digital-editions-on-the-rise>.
- Flynn, L.J. (2007, 2 February). Amazon's revenue rises but profit drops. Company investing in technology and discount programs. *International Herald Tribune*. Retrieved from <http://www.nytimes.com/2007/02/02/technology/02iht-amazon.4444576.html>.
- Foreman, R. (2005, 3 August). The pancake people, or "the Gods are pounding my head". Retrieved from http://www.edge.org/3rd_culture/foreman05/foreman05_index.html.
- Frankel, M.S. & Siang, S. (1999, 10-11 June). *Ethical and legal aspects of human subjects research on the internet*. Workshop report American Association for the Advancement of Science, Washington DC. Retrieved from <http://www.aaas.org/spp/dspp/sfrr/projects/intres/main.htm>.
- Friedrich, O. (1983, 3 January). Machine of the year: the computer moves in. *Times Magazine*. Retrieved from <http://www.time.com/time/magazine/article/0,9171,952176,00.html>.
- Friess, S. (2005, 18 July). iTunes mints podcasting stars. *Wired News*. Retrieved from <http://www.wired.com/news/print/0,1294,68185,00.html>.
- Frissen, V. (2004). *De domesticatie van de digitale wereld*. Rotterdam: Erasmus Universiteit Rotterdam.
- Frissen, V. & De Mul, J. (2000). *Under construction. Persoonlijke en culturele identiteit in het multimediatijdperk*. Amsterdam: Infodrome. Retrieved from http://www.infodrome.info/download/pdf/surv_frismul.pdf.

- Frissen, V., Van Staden, M., Huijboom, N., Kotterink, B., Huveneers, S., Kuipers, M. & Bodea, G. (2008). *Naar een 'User Generated State'? De impact van nieuwe media voor overheid en openbaar bestuur*. TNO report 34466. Delft: TNO.
- Gantz, J.F., Chute, C., Manfrediz, A., Minton, S., Reinsel, D., Schligting, W., & Toncheva, A. (2007). *The expanding digital universe. A forecast of worldwide information growth through 2010*. IDC/EMC. Retrieved from <http://www.emc.com/collateral/analyst-reports/diverse-exploding-digital-universe.pdf>.
- Geist, M. (2005, 1 May). Piercing the peer-to-peer myths: an examination of the Canadian experience. *First Monday*, 10(4). Retrieved from <http://www.michaelgeist.ca/content/view/780/139/>.
- Giddens, A. (1986). *The constitution of society*. Ewing: University of California Press.
- Gillmor, D. (2009). Media users, media creators: principles of active engagement. *Nieman Reports*, 63(3), 40-42.
- Gorman, L. & McLean, D. (2003). *Media and society in the twentieth century. A historical introduction*. Malden, Oxford, Victoria, Berlin: Blackwell Publishing.
- Gosling, J. (2009). *Waging The War of the Worlds: A History of the 1938 Radio Broadcast and Resulting Panic*. Jefferson: McFarland & Co Inc.
- Greenberg, B.S. & Salwen, M.B. (1996). Mass communication theory and research: concepts and models. In Salwen, M.B. & Stacks, D.W. (Eds.). *An integrated approach to communication theory and research* (pp.63-78). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Grinnell, C.K. (2009). From Consumer to Prosumer to Prosumer: Who Keeps Shifting My Paradigm? *Public Culture*, 21(3), 577-598.
- Grossman, L. (2006, 25 December). Time's person of the year: you. *Time Magazine*. Retrieved from <http://www.time.com/time/magazine/article/0,9171,1570810,00.html>.
- Hackett, E.J., Amsterdamska, O., Lynch, M.E. & Wajcman, J. (2008). *The handbook of science and technology studies* (3rd edition). London, Cambridge MA, The MIT Press.
- Haddon, L. (2005). Empirical Studies using the Domestication Framework. In T. Berker, M. Hartmann, Y. Punie & K. Ward (Eds.), *Domestication of Media and Technologies* (pp.103-122). Berkshire: Open University Press.
- Haddon, L. (2007). Roger Silverstone's legacies: Domestication. *New Media & Society*, 9(1), 25-32.
- Hall, S. (1980). Cultural Studies: two paradigms. *Media, Culture and Society*, 2, 57-72.

- Harrison, T.M. & Barthel, B. (2009). Wielding new media in Web 2.0: exploring the history of engagement with the collaborative construction of media products. *New Media Society*, 11(1&2), 155-178.
- Hartmann, M. (2006). The triple articulation of ICTs. Media as technological objects, symbolic environments and individual texts. In T. Berker, M. Hartmann, Y. Punie & K. Ward (Eds.), *Domestication of Media and Technologies* (pp. 80 - 102). Berkshire: Open University Press.
- Henten, A. & Tadayoni, R. (2008). The impact of the internet on media technology, platforms and innovation. In L. Küng, R.G. Picard & R. Towse (Eds.), *The internet and the mass media* (pp. 45-64). Los Angeles, London, New Delhi, Singapore, Washington DC: SAGE.
- Hermes, J. (2009). Audience Studies 2.0. On the theory, politics and method of qualitative audience research. *Interactions*, 1(1), 111-127.
- Hermes, J. & Janssen, S. (2006). De nieuwe contentmakers. In J. de Haan & C. van 't Hof (Eds.), *Jaarboek ICT en samenleving 2006. De digitale generatie* (pp. 159-175). Amsterdam: Boom.
- Hesmondhalgh, D. (2001, November). Ownership is only part of the media picture. *OpenDemocracy*, 8. Retrieved from http://www.opendemocracy.net/media-globalmediaownership/article_46.jsp.
- Hesmondhalgh, D. (2007). *The Cultural Industries* (2nd Edition). London, Los Angeles and New Delhi: Sage.
- Hine, C. (Ed.) (2005). *Virtual methods. Issues in social research on the Internet*. Oxford, New York: Berg.
- Hirst, M. & Harrison, J. (2007). *Communication and new media. From broadcast to narrowcast*. Sydney: Oxford University Press.
- Horrigan, J.B. (2006). Online news. For many home broadband users, the internet is a primary news source. Pew Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Reports/2006/Online-News-For-many-home-broadband-users-the-internet-is-a-primary-news-source.aspx>.
- Horrigan, J.B. & Rainie, L. (2002). The broadband difference. How online behavior changes with high-speed Internet connections at home. Pew Internet & American Life project. Retrieved from <http://www.pewinternet.org/Reports/2002/The-Broadband-Difference-How-online-behavior-changes-with-highspeed-Internet-connections.aspx>.
- Howe, J. (2006). The rise of crowdsourcing. *Wired Magazine*. Retrieved from <http://www.wired.com/wired/archive/14.06/crowds.html>.

- Huijboom, N., Broek, T. van den, Frissen, V., Kool, L. (2010). *Public 2.0: the impact of social computing on public services*. Delft: TNO.
- Huygen, A., Rutten, P., Huveneers, S., Limonard, S., Poort, J., Leenheer, J., Janssen, K., Eijk, N. van, & Helberger, N. (2009). *Ups and downs. Economic and cultural effects of file-sharing on music, film and games*. Delft: TNO, retrieved from http://www.ivir.nl/publicaties/vaneijk/Ups_And_Downs_authorized_translation.pdf.
- Hynes, D. & Rommes, E. (2006). Fitting the Internet into our lives; Internet courses for disadvantaged users. In T. Berker, M. Hartmann, Y. Punie & K. Ward (Eds.), *Domestication of Media and Technologies* (pp.125-144). Berkshire: Open University Press.
- IDC (2007). Video game revenue growth shifts online, with consumer downloads, subscriptions and advertising, says IDC. Retrieved from <http://industry.tekrati.com/research/9558/>.
- IDPF (2010). Industry statistics. Retrieved from <http://idpf.org/about-us/industry-statistics>.
- IFPI (2004). *IFPI online music report*. London: IFPI. Retrieved from <http://www.ifpi.org/content/library/digital-music-report-2004.pdf>.
- IFPI (2006). *Digital Music Report*. London: IFPI. Retrieved from <http://www.ifpi.org/site-content/library/digital-music-report-2006.pdf>.
- IFPI (2008). *IFPI digital music report 2008. Revolution innovation responsibility*. London: IFPI. Retrieved from <http://www.ifpi.org/content/library/DMR2008.pdf>.
- IFPI (2010). *IFPI digital music report 2010. Music how, when, where you want it*. London: IFPI, retrieved August 2010 from <http://www.ifpi.org/content/library/DMR2010.pdf>
- IFPI (2012). *IFPI digital music report 2012. Expanding choice. Going global*. London: IFPI. Retrieved from <http://www.ifpi.org/content/library/DMR2012.pdf>.
- InfoTrends (2003, 19 November). Worldwide Consumer Digital Camera Sales to Reach Nearly 53 Million in 2004. Retrieved from <http://www.dpreview.com/news/2003/11/19/infotrends53mil>.
- Intellivision (2008). Intellivision timeline. Retrieved from <http://www.intellivisionlives.com/bluesky/home.shtml>.
- Ito, M., Baumer, S., Bittanti, M., boyd, D., Cody, R., Herr-Stephenson, B., Horst, H.A., Lange, P.G., Mahendran, D., Martinez, K.Z., Pascoe, C.J., Perkel, D., Robinson, L., Sims, C. & Tripp, L. (Eds.). (2010). *Hanging out, messing around, and geeking out : Kids living and learning with new media*. Cambridge, MA: MIT Press.

- Jansz, J. & Theodorsen, J. (2009, May). *Modifying video games on Web 2.0: an exploration of motives for publishing creative game content*. Paper presented at ICA Conference, Chicago, USA.
- Jansz, J. (2010). *Participating media audiences 2.1*. Rotterdam: ERMeCC.
- Jansz, J., Slot, M. & Tol, S. (2011). *Creativiteit in online werelden*. Rotterdam: ERMeCC.
- James, D. (2000). Are you ready for the coming dot-com crash. *Marketing*, 34(3), 11.
- Jarett, A., Estanislao, J., Dunin, E., MacLean, J., Robbins, B., Rohrl, D., Welch, J. & Valadares, J. (2003). *IGDA Online Games White Paper*. IGDA. Retrieved from http://www.igda.org/online/IGDA_Online_Games_Whitepaper_2003.pdf.
- Jenkins, H. (2006). *Convergence culture. Where old and new media collide*. New York and London: New York University Press.
- Jenkins, H. & Deuze, M. (2008). Convergence Culture. *Convergence*, 14(1), 5-12.
- Jensen, K.B. & Rosengren, K.E. (1990). Five traditions in search of the audience. *European Journal of Communication*, 5, 207-238.
- Johansson, D. & Larsson, M. (2009). *The Swedish music industry in graphs. Economic development report 2000-2008*. Stockholm: Trendmaze, Royal Institute of Technology. Retrieved from http://ec.europa.eu/avpolicy/docs/other_actions/col_2009/pub/kth_annex.pdf.
- Jones, S. (Ed.) (1999). *Doing Internet research. Critical issues and methods for examining the net*. Thousand Oaks, London, New Delhi: SAGE Publications.
- Kanai, R., Bahrami, B., Roylance, R. & Rees, G. (2011, 19 October). Online social network size is reflected in human brain structure. *Proceedings of the Royal Society B*. doi:10.1098/rspb.2011.1959.
- Keen, A. (2007). *The cult of the amateur. How today's internet is killing our culture*. New York: Doubleday/ Currency.
- Kaplan, A.M. & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59 - 68.
- Kim, P. & Sawhney, H. (2002). A machine-like new medium – theoretical examination of interactive TV. *Media, Culture & Society*, 24, 217-233.
- Klapper, J. (1960). *The Effects of Mass Communication*. New York: Free Press.
- Klein, H. & Kleinman, D.L. (2002). The Social Construction of Technology: Structural Considerations. *Science, Technology & Human Values*, 27(1), 28-52.

- Knulst, W.P. (1982). *Mediabeleid en cultuurbeleid: een studie over de samenhang tussen de twee beleidsvelden*. Den Haag: Staatsuitgeverij.
- Kreiss, D., Finn, M. & Turner, F. (2011). The limits of peer production: some reminders from Max Weber for the network society. *New Media & Society*, 13(2), 243-259.
- Küng, L. (2008). *Strategic management in the media. Theory to practice*. Los Angeles, London, New Delhi, Singapore: SAGE.
- Küng, L., Picard, R. & Towse, R. (eds.) (2008). *The internet and the mass media*. London, Thousand Oaks, New Delhi, Singapore: SAGE Publications.
- Lasswell, H.D. (1927). The theory of political propaganda. *The American Political Science Review*, 21(3), 627-631.
- Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers Through Society*. Milton Keynes: Open University Press.
- Lazarsfeld, P., Berelson, B., & Gaudet, H. (1948). *The people's choice: how the voter makes up his mind in a presidential campaign*. New York: Columbia University Press.
- Leadbeater, C. (2008). *We-think. Mass innovation, not mass production*. London: Profile Books.
- Leadbeater, C. & Miller, P. (2004). *The Pro-Am Revolution. Hoe enthusiasts are changing the way our economy and society work*. UK: Demos UK. Retrieved from <http://www.demos.co.uk/files/proamrevolutionfinal.pdf>.
- Lenhart, A. & Fox, S. (2006). *Bloggers. A portrait of the internet's new storytellers*. PEW Internet & American Life Project. Retrieved from <http://www.pewinternet.org/~media/Files/Reports/2006/PIP%20Bloggers%20Report%20July%2019%202006.pdf>.
- Lenhart, A. (2010). *Social media and young adults*. PEW Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Presentations/2010/Feb/Department-of-Commerce.aspx>.
- Leurdijk, A., Slot, M. & Nieuwenhuis, O. (2012). *The Newspaper Publishing Industry*. Delft: TNO.
- Levine, R., Locke, C., Searls, D. & Weinberger, D. (2000). *The cluetrain manifesto. The end of business as usual*. Cambridge, Massachusetts: Basic Books. Retrieved from <http://cluetrain.com/book/index.html>.
- Levine, R. (2011). *Free ride. How the Internet is Destroying the Culture Business and How it Can Fight Back*. New York: Random House.

- Li, C. (2006, 5 April). Forrester podcasting report - just 1% use podcasts. Retrieved from http://blogs.forrester.com/groundswell/2006/04/forrester_podca_1.html.
- Lie, M. & Sørensen, K.H. (Eds.) (1996). *Making technology our own? Domesticating technology into everyday life*. Oslo: Scandinavian University Press.
- Liebowitz, S.J. (2004). *File-sharing: creative destruction or just plain destruction?* Dallas: University of Texas. Retrieved from <http://www.utdallas.edu/~liebowit/intprop/destruction4.pdf>.
- Liebowitz, S.J. (2010). *The key instrument in the Oberholzer-Gee/Strumpf file-sharing paper is defective*. Dallas: University of Texas. Retrieved from <http://jindal.utdallas.edu/files/laugh-09-03.pdf>.
- Lievrouw, L.A. & Livingstone, S. (Eds.) (2006). *Handbook of new media: student edition*. London: Sage.
- Linden Labs (2008). *Key Metrics*. Retrieved from <http://secondlife.com/whatis/economy-graphs.php>.
- Lister, M., Dovey, J., Giddings, S., Grant, I. & Kelly, K. (2003). *New media: a critical introduction*. London and New York: Routledge.
- Livingstone, S. (1999). New media, new audiences? *New Media and Society*, 1(1), 59-66.
- Livingstone, S. (2007). On the matter of the new and the symbolic: Silverstone's double articulation of research traditions in new media studies. *New Media and Society*, 9 (1) 16-24.
- Livingstone, S. (2008). Taking Risky Opportunities in Youthful Content Creation: Teenagers' Use of Social Networking Sites for Intimacy, Privacy and Self-Expression. *New Media and Society*, 10, 459-77.
- Lundvall, B.A. (1988). Innovation as an interactive process. In G. Dosi, C. Freeman, R. Nelson, G. Silverberg & L. Soete, (Eds.), *Technical change and economic theory* (pp. 349-369). London: Pinter.
- Mac (2012, 17 May). How much Facebook's billionaires are worth now that IPO has priced. Retrieved from <http://www.forbes.com/sites/ryanmac/2012/05/17/how-much-facebooks-billionaires-are-worth-now-that-ipo-has-priced/>.
- Mackay, H., Carne, C., Beynon-Davies, P. & Tudhope, D. (2000). Reconfiguring the Users: Using Rapid Application Development. *Social Studies of Science*, 30(3), 737-757.
- Madden, M. (2004). *Artists, musicians and the internet*. PEW Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Reports/2004/Artists-Musicians-and-the-Internet.aspx>.

Madden, M. (2006). *Podcast downloading*. PEW Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Reports/2006/Podcast-Downloading.aspx>.

Madden, M. & Fox, S. (2006). *Riding the waves of Web 2.0. More than a buzzword, but still not easily defined*. PEW Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Reports/2006/Riding-the-Waves-of-Web-20.aspx>.

Madden, M. & Jones, S. (2008). *Podcast Downloading 2008*. PEW Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Reports/2008/Podcast-Downloading-2008.aspx>.

Malerba, F. & Orsenigo, L. (2010). User–producer relations, innovation and the evolution of market structures under alternative contractual regimes. *Structural change and economic dynamics*, 21(1), 26-40.

Mann, C. & Stewart, F. (2000). *Internet communication and qualitative research: a handbook for researching online*. London: Sage.

Mansell, R. & Livingstone, R. (Eds.) (1996). *Communication by design. The politics of information and communication technologies*. Oxford: Oxford University Press.

Markoff, J. (1994, 19 May). Company news; Sony starts a division to sell game machines. New York Times. Retrieved from <http://query.nytimes.com/gst/fullpage.html?res=9E0DE1DA1538F93AA25756C0A962958260&scp=27&sq=video+game+industry+1995&st=nyt>

Martinson, D. L. (2004). Media Literacy Education: No Longer a Curriculum Option. *The Educational Forum*, 68(2), 154-160.

McCoy, M. & Hargie, O. (2003). Implications of mass communication theory for asymmetric public relations evaluation. *Journal of Communication Management*, 7(4), 304-316.

McLuhan, M. (1964). *Understanding Media: The Extensions of Man*. Berkeley CA, Gingko Press.

McMillan, S.J. (2002). Exploring Models of Interactivity from Multiple Research Traditions: Users, Documents, And Systems. In L.A. Lievrouw & S. Livingstone (Eds.), *Handbook of new media: student edition* (pp. 162-182). London: Sage.

McMullen, J. (2003, 8 October). Com 314: Mass communication theory. Retrieved from <http://home.hiwaay.net/~jmcmulle/314limited%20effects%20theories.htm>.

McQuail, D. (1987). *Mass communication theory*. London, Newbury Park, Beverly Hills, New Delhi: Sage Publications.

Mello, A. (2000). The coming dot-com crash. *Upside*, 12(2), 26.

Meltzer, M. (2010, 26 February). The curated web. *The American Prospect*. Retrieved from <http://prospect.org/article/curated-web-0>.

Michel, N. J. (2006). The Impact of Digital File-sharing on the Music Industry: An Empirical Analysis. *Topics in Economic Analysis & Policy*, 6(1), 1-22.

Miller, D. (Ed.) (1995). *Acknowledging consumption. A review of new studies*. London: Routledge.

Mooney, P., Samanta, S. & Zadeh, A.H.M. (2010). Napster and its effects on the music industry: an empirical analysis. *Journal of Social Sciences*, 6(3), 303-309.

Morley, D. (1980). *The 'Nationwide' Audience: Structure and Decoding*. London: BFI.

Morley, D. (2006). What's 'home' got to do with it? Contradictory dynamics in the domestication of technology and the dislocation of domesticity. In T. Berker, M. Hartmann, Y. Punie & K. Ward (Eds.), *Domestication of Media and Technologies* (pp. 21-39). Berkshire: Open University Press.

Moss, J. (2006, 20 August). Couch potato: life as a fulltime television watcher. Voice of America. Retrieved from <http://learningenglish.voanews.com/content/a-23-2006-08-20-voa1-83129632/126064.html>.

MPAA (2004). *European country piracy factsheets*. Retrieved August, 2008 from <http://www.mpaa.org/EuropeanPiracyFactSheet.pdf>.

MPAA (2005). *2005 U.S. piracy factsheet*. Retrieved August, 2008 from <http://www.mpaa.org/USPiracyFactSheet.pdf>.

MPAA (2007). *International theatrical snapshot*. Retrieved August, 2008 from <http://www.mpaa.org/International%20Theatrical%20Snapshot.pdf>.

MPAA (2007a). *Entertainment industry market statistics*. Retrieved August, 2008 from <http://www.mpaa.org/USEntertainmentIndustryMarketStats.pdf>.

MPAA (2008). *The pyramid of internet piracy*. Retrieved August, 2008 from http://www.mpaa.org/pyramid_of_piracy.pdf.

MPAA (2010). *Worldwide box office continues to soar; US admissions on the rise*. Retrieved August, 2010 from <http://www.mpaa.org/resources/756f90f0-f982-49d7-9f02-35da3773cc8c.pdf>.

De Mul, J., Müller, E., Nusselder, A. (2001). *ICT de baas? Informatietechnologie en menselijke autonomie*. Den Haag: Onderzoeksprogramma Internet en Openbaar Bestuur 2001.

Nattermann, P. M. (2010, April). A glimmer of hope for newspapers. *McKinsey Quarterly*. Retrieved from www.newspaperdeathwatch.com/wp-content/uploads/2010/04/Glimmer_of_hope_for_newspapers.

Nielsen, J. (2006). Participation inequality: encouraging more users to contribute. Retrieved from http://www.useit.com/alertbox/participation_inequality.html.

Nielsen Media Research (2006, 21 September). Nielsen Media Research reports television's popularity is still growing. Retrieved from <http://www.thefreelibrary.com/Nielsen+Media+Research+Reports+Television's+Popularity+Is+Still+...-a0151702487>.

Nielsen Media Research (2011). The Digital Media Habits and Attitudes of Southeast Asian Consumers. Retrieved November 2011 from <http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2011-Reports/South-East-Asia-Digital-Consumer.pdf>.

Nielsen/NetRatings (2006). Social networking sites grow 47 per cent, year over year, reaching 45 per cent of web users, according to Nielsen/Netratings. Retrieved from http://www.nielsen-netratings.com/pr/pr_060511.pdf

Nooij, A.T.J. (1996). Sociale methodiek. Normatieve en beschrijvende methodiek in grondvormen. Culemborg: Educatieve Partners Nederland.

Oberholzer, F. & Strumpf, K. (2004). The effect of file-sharing on record sales. An empirical analysis. Retrieved from http://www.unc.edu/~cigar/papers/FileSharing_March2004.pdf

OBS (1999). *Focus 1999. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2000). *Focus 2000. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2001). *Focus 2001. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2002). *Focus 2002. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2003). *Focus 2003. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2004). *Focus 2004. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2005). *Focus 2005. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2006). *Focus 2006. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2007). *Focus 2007. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2008). *Focus 2008. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2009). *Focus 2009. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OBS (2010). *Focus 2010. World Film Market Trends*. Cannes: Observatoire Européen de l'audiovisuel. Retrieved August, 2010 from http://www.obs.coe.int/oea_publ/market/focus.html.

OECD (2003). *Broadband audio-visual services: market developments in OECD countries*. Paris: OECD. Retrieved from <http://www.oecd.org/dataoecd/46/45/24404295.pdf>.

OECD (2004a). *Peer to peer networks in OECD countries*. Pre-release of section from chapter 5 of the Information Technology Outlook. Paris: OECD. Retrieved from <http://www.oecd.org/dataoecd/55/57/32927686.pdf>.

OECD (2004b). *Broadband audio-visual services: market developments in OECD countries. Working Party on Telecommunication and Information Services Policies*. Paris: OECD.

OECD (2005). *Digital broadband content: the online computer and video games industry*. Paris: OECD. Retrieved from <http://www.oecd.org/dataoecd/19/5/34884414.pdf>.

OECD (2007). *Participative Web and User-Created Content. Web 2.0, Wikis and Social Networking*. Paris: OECD. Retrieved from <http://213.253.134.43/oecd/pdfs/browseit/9307031E.PDF>.

Ofcom (2007). *The international communications market 2007*. Retrieved from <http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/icmr07/>.

Ofcom (2010). *The communications market: digital radio report*. Retrieved from <http://stakeholders.ofcom.org.uk/binaries/research/radio-research/digital-radio-reports/report210710.pdf>.

O'Reilly, T. (2005, 30 September). *What Is Web 2.0. Design Patterns and Business Models for the Next Generation of Software*. Retrieved from <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html> .

O'Reilly, T. & Battelle, J. (2009). *Web squared: Web 2.0 five years on*. O'Reilly. Retrieved from http://assets.en.oreilly.com/1/event/28/web2009_websquared-whitepaper.pdf.

Osterwalder, A. (2004). *The business model ontology. A proposition in a design science approach*. (Doctoral dissertation). Lausanne: l'Universite de Lausanne.

Oudshoorn, N., & Pinch T. (2008). User-Technology relationships: some recent developments. In E.J. Hackett, O. Amsterdamska, M. Lynch & J. Wajcman (Eds.), *The handbook of science and technology studies* (pp. 541-565). Cambridge, Massachusetts, London, England: MIT Press.

Owyang, J. (2008, 9 January). Social network stats: Facebook, MySpace, Reunion. Retrieved from <http://www.web-strategist.com/blog/2008/01/09/social-network-stats-facebook-myspace-reunion-jan-2008/>.

Pareles, J. (2007, 9 December). Pay what you want for this article. *New York Times*. Retrieved from <http://www.nytimes.com/2007/12/09/arts/music/09pare.html?pagewanted=1&r=1>.

Pascu, C., Osimo, D., Ulbrich, M., Turlea, G. & Burgelman, J.C. (2007). The potential disruptive impact of Internet 2 based technologies. *First Monday*, 12(3). Retrieved from <http://firstmonday.org/article/view/1630/1545>.

Paxhia, S. & Rosenblatt, B. (2008). *Digital magazine and newspaper editions. Growth, trends and best practices*. Cambridge Massachusetts: The Gilbane Group. Retrieved from <http://info.texterity.com/info/2008GilbaneReport/>.

PC Gaming Alliance (2008). PC gaming alliance illuminates state of PC gaming worldwide with release of horizons report. Retrieved from <http://pcgamingalliance.org/press/entry/pcga-horizons-report-illuminates-state-of-pc-gaming-worldwide>.

Perez, C. (2002). *Technological revolutions and financial capital. The dynamics of bubbles and golden ages*. Cheltenham: Edward Elgar Publishing.

Picone, I. (2007). Conceptualising online news use. *Observatorio (OBS*) Journal*, 3, 093-144.

Pietilä, V. (1994). Perspectives on our past: charting the histories of mass communication studies. *Critical studies in Mass Communication*, 11, 346-361.

Pinch, T. & Bijker, W. (1987). The Social Construction of Facts and Artefacts: Or how the Sociology of Science and the Sociology of Technology might Benefit each Other. In W. Bijker & T. Hughs (Eds.), *The Social Construction of Technological Systems: New Directions in the Sociology and history of Technology* (pp. 17-50). Cambridge, MIT Press.

Pisani, F. (2006). Journalism and Web 2.0. *Nieman Reports*. Retrieved from <http://www.nieman.harvard.edu/reportsitem.aspx?id=100293>.

- Pleijter, A. (2006). *Typen en logica van kwalitatieve inhoudsanalyse in de communicatiewetenschap*. Ubbergen: Uitgeverij Tandem Felix.
- Pleijter, A. (2011). Volkskrant stopt met lezersblogs – “Door te weinig inzet van redactie”. *De Nieuwe Reporter*. Retrieved from <http://www.denieuwereporter.nl/2011/01/volkskrant-stopt-met-blogs-voor-lezers-inzet-van-redactie-was-te-weinig/>.
- Porter, M. (1985). *Competitive Advantage: creating and sustaining superior performance*. New York: The Free Press.
- Potter, M. (Ed.) (2004). *Profit: Potential Profit Opportunities in the Future Ambient Intelligence World. Strategic Business Models for the New Economy*. Eurescom. Retrieved from http://www.eurescom.de/public/projects/P1300-series/p1302/P1302_deliverables.asp.
- Potter, W.J. (2011). Conceptualizing mass media effect. *Journal of Communication*, 61(5), 896-915.
- PPA (2008). UK consumer magazine trends – overview. Retrieved from <http://www.ppa.co.uk/>.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5). Retrieved from <http://www.marcprensky.com/writing/prensky%20-%20digital%20natives,%20digital%20immigrants%20-%20part1.pdf>.
- Punie, Y. (2000). *Domesticatie van informatie- en Communicatietechnologie. Adoptie, gebruik en betekenis van media in het dagelijkse leven: Continue beperking of discontinue bevrijding?* (Doctoral dissertation). Brussel: Vrije Universiteit Brussel.
- Punie, Y. (2004). Een theoretische en empirische benadering van adoptie, gebruik en betekenis van Informatie- en Communicatietechnologie in het dagelijkse leven. In N. Carpentier, C. Pauwels & O. van Oost (Eds.), *Het on(begrijpbare) publiek. Een communicatiewetenschappelijke verkenning van het publiek* (pp.175-200). Brussel: VUBPress.
- Punie, Y. (2011). Introduction: new media technologies and user empowerment. Is there a happy ending? In J. Pierson, E. Mante-Meijer & E. Loos (Eds.), *New media technologies and user empowerment* (pp.9-23). Frankfurt am Main: Peter Lang GmbH.
- Purcell, K., Rainie, L., Mitchell, A., Rosenstiel, T. & Olmstead, K. (2010). *Understanding the participatory news consumer. How internet and cell phone users have turned news into a social experience*. Washington: PEW Internet & American Life Project. Retrieved from http://www.pewinternet.org/~media/Files/Reports/2010/PIP_Understanding_the_Participatory_News_Consumer.pdf.
- Purcell, K. (2011). *Half of all adult cell phone owners have apps on their phones*. Washington: PEW Internet & American Life Project. Retrieved from http://www.pewinternet.org/~media/Files/Reports/2011/PIP_Apps-Update-2011.pdf.

- Qrius (2005). *Jongeren 2005*. Partly retrieved from <http://www.hetjongerenonderzoek.nl>.
- Rainie, L. (2005). The state of blogging. Washington: PEW Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Reports/2005/The-State-of-Blogging.aspx>.
- Rand, A. (1948). *The Fountainhead*. Indianapolis: Bobbs-Merrill Company.
- Reijnders, M. (2010, 2 June). Invallen politie wegens diefstal in Habbo Hotel. Bright. Retrieved from <http://www.bright.nl/invallen-politie-wegens-diefstal-habbo-hotel>.
- Rheingold, H. (1993). *The virtual community*. Cambridge MA: MIT Press.
- RIAA (2007). *2007 year-end shipment statistics*. Retrieved August, 2008 from www.riaa.com.
- RIAA (2007a). *The CD: a better value than ever*. Retrieved August, 2010 from <http://76.74.24.142/F3A24BF9-9711-7F8A-F1D3-1100C49D8418.pdf>.
- Richards, J. (2008, 19 August). Hundreds sued for sharing video games. *Times Online*. Retrieved from <http://www.thetimes.co.uk/tto/technology/article1859022.ece>.
- Robinson, T. (2011). Affinity reports dramatic shifts in magazine readership. PR Newswire. Retrieved from <http://www.prnewswire.com/news-releases/affinity-reports-dramatic-shifts-in-magazine-readership-134922563.html>
- Roettgers, J. (2009, 17 October). Is P2P dead? Not so fast. *Gigaom*. Retrieved from <http://gigaom.com/2009/10/17/is-p2p-dead-not-so-fast/>.
- Rogers, E.M. (1995). *Diffusion of Innovations*. New York: Free Press.
- Rogers, E.M. (1976). New product adoption and diffusion. *Journal of Consumption Research*, 2, 290-301.
- Rosenberg, N. (1982). *Inside the black box*. Cambridge: Cambridge University Press.
- Rutten, P. & Driessen, J. (2005). *Time Waits for No-One. De Razendsnelle Ontwikkeling Van De Media- En Entertainmentindustrie*. Haarlem: Hogeschool INHOLLAND. Retrieved from http://www.inholland.nl/NR/rdonlyres/845166E8-B5CF-4B40-857C-E9DFE3F2DAA2/0/Inauguratiebrochure_Rutten_Driessen.pdf.
- Rutten, P., Manshanden, W., Muskens, J. & Koops, O. (2004). *De Creatieve Industrie in Amsterdam en de Regio*. TNO-Rapport STB-04-29. Delft: TNO.
- Rutter, J. & Smith, G.W.H. (2005). Ethnographic presence in a nebulous setting. In C. Hine(Ed.) (2005). *Virtual methods. Issues in social research on the Internet* (pp. 81-92). Oxford, New York: Berg.

Schols, M., Duimel, M. & De Haan, J., (2011). Hoe cultureel is de digitale generatie? Het internetgebruik voor culturele doeleinden onder schoolgaande tieners. Den Haag: Sociaal en Cultureel Planbureau.

Schäfer, M.T. (2008). Participation Inside? User Activities between Design and Appropriation. In M. van den Boomen, S. Lammes, A.S. Lehmann, J. Raessens, M.T. Schäfer (eds.). *Digital Material. Tracing New Media in Everyday Life and Technology* (pp.147-158). Amsterdam: Amsterdam University Press.

Scocco, D. (2008). Alexa is becoming completely worthless. Retrieved from <http://www.dailyblogtips.com/alexa-is-becoming-completely-worthless/>.

SCP (2006). De boekenlezer is vrouw. Retrieved September, 2008 from <http://www.tijdbesteding.nl/hoelangvaak/vrijetijd/media/gedrukt/boeken/20061018.html>.

Shankland, S. (2007, 24 April). Camera market to peak in 2010, IDC says. *Cnet news*. Retrieved August, 2008 from http://news.cnet.com/2100-1041_3-6178950.html.

Shannon, C. & Weaver, W. (1963). *The mathematical theory of communication*. Urbana and Chicago: University of Illinois Press.

Shao, G. (2008). Understanding the appeal of user-generated media: a uses and gratification perspective. *Internet Research*, 19(1), 7-25.

Shapiro, C. (1991, 19 June). Market place; differing views on video games. *The New York Times*. Retrieved from query.nytimes.com/gst/fullpage.html?res=9D0CEED6153BF93AA25755C0A967958260&sec=&spn=&pagewanted=1.

Shapiro, C. & Varian, H.R. (1999). *Information Rules. A strategic guide to the network economy*. Boston Massachusetts: Harvard Business School Press.

Shirky, C. (2000). RIP the consumer, 1900-1999. Retrieved from <http://www.shirky.com/writings/consumer.html>.

Siegel, L. (2008). *Against the machine. Being human in the age of the electronic mob*. New York: Spiegel & Grau.

Silverstone, R. & Hirsch, E. (1992). *Consuming Technologies. Media and Information in domestic spaces*. London and New York: Routledge.

Silverstone, R. (1994). *Television and everyday life*. London: Routledge.

Silverstone, R. (1995). Media, communication, information and the 'revolution' of everyday life. In S.J. Emmott (Ed.), *Information superhighways. Multimedia users and futures* (pp.61-78). London: Academic Press Limited.

Silverstone, R. & Haddon, L. (1996). Design and the domestication of information and communication technologies: technical change and everyday life. In R. Mansell & R. Livingstone (Eds.), *Communication by design. The politics of information and communication technologies* (pp.44-74). Oxford: Oxford University Press.

Sismondo, S. (2008). Science and technology studies and an engaged program. In E.J. Hackett, O. Amsterdamska, M. Lynch & J. Wajcman (Eds.), *The handbook of science and technology studies* (pp. 13-31). Cambridge, Massachusetts, London, England: MIT Press.

Siwek, S.E. (2007, 21 August). The true cost of sound recording piracy to the U.S. economy. Retrieved from http://www.ipi.org/ipi_issues/detail/the-true-cost-of-sound-recording-piracy-to-the-us-economy.

Slot, M. & Frissen, V.A.J. (2007). Users in the 'golden' age of the information society. *Observatorio (OBS*) Journal*, 3, 201-224.

Slot, M. (2008). Expanding user roles in digital television. In A. Urban, B. Sapio & T. Turk (Eds.), *Digital Television Revisited. Linking users, markets and policies* (pp.108-122). Workshop proceedings COST Action 298 'Participation in the Broadband Society'.

Slot, M. (2010). Everyday creativity in virtual worlds. In R. Pijpers & J. de Haan (Eds.), *Contact! Children and New Media* (pp.69-84). Houten: Bohn Stafleu van Loghum.

Surowiecki, J. (2004). *The wisdom of crowds*. New York: Anchor Books.

Tapscott, D. & Williams, A.D. (2006). *Wikinomics. How mass collaboration is changing everything*. New York, London: Penguin Books.

Taraszw, T., Aristodemou, E., Shitta, G., Laouris, Y., Arsoy, A. (2010). Disclosure of personal and contact information by young people in social networking sites: An analysis using Facebook as an example. *International Journal of Media and Cultural Politics*, 6(1), 81-102. doi 10.1386/macp.6.1.81/1.

Teffer, P. (2010, 2 June). Diefstal in het Habbo Hotel. *nrcnext*. Retrieved from <http://www.nrcnext.nl/blog/2010/06/02/diefstal-in-het-habbo-hotel/>.

The Publishers Association (2007). *UK publishing industry in statistics 2007*. Londen: The Publishers Association. Retrieved from <http://www.docstoc.com/docs/2397655/UK-PUBLISHING-INDUSTRY-IN-STATISTICS-2007>.

- Todreas, T.M. (1999). *Value creation and branding in television's digital age*. Westport: Quorum Books.
- Toffler, A. (1980). *The Third Wave. The classic study of tomorrow*. New York: Bantam Books.
- Tomesen, R. (2006, 31 January). Webloguitgeverij Michiel Frackers van start. *Emerge*. Retrieved from <http://www.emerge.nl/nieuws/webloguitgeverij-michiel-frackers-van-start>.
- Tuomi, I. (2002). *Networks of innovation. Change and meaning in the age of the internet*. Oxford: Oxford University Press.
- UNESCO (n.d.). *Understanding creative industries. Cultural statistics for public-policy making*. Retrieved from: http://portal.unesco.org/culture/es/files/30297/11942616973cultural_stat_EN.pdf/cultural_stat_EN.pdf.
- University of Minnesota (2007). *Media history project*. Retrieved from <http://www.mediahistory.umn.edu/timeline/>.
- Useem, J. (2000). Dot-coms: what have we learned? *Fortune*, 142(10), 82-104.
- Valkenburg, P. (2000). Media and youth consumerism. *Journal of adolescent health*, 27(2), 52-26.
- Valkenburg, P. (2002). *Beeldschermkinderen. Theorieën over kind en media*. Amsterdam: Boom.
- Van Buskirk, E. (2010, 24 February). Bankrupt, Crowd-Funded SellaBand Acquired by German Investors. *Wired*. Retrieved from <http://www.wired.com/epicenter/2010/02/bankrupt-crowd-funded-sellaband-acquired-by-german-investors/>.
- Van de Kamp, M. (2009). *Where corporate culture and local markets meet. Music and film majors in the Netherlands 1990-2005*. (Doctoral dissertation). Enschede: ERMeCC.
- Van Deursen, A. & Van Dijk, J. (2011). Internet skills and the digital divide. *New Media & Society*, 13(8), 893-911.
- Van Dijck, J. (2009). Users like you? Theorizing agency in user-generated content. *Media, Culture & Society*, 31(1), 41-58.
- Van der Giessen, A., Van der Plas, A., Van Oort, S. & De Munck, S. (2011, June). *Marktrapportage elektronische communicatie*. Delft: TNO.
- Van Eijk, N., Poort, J. & Rutten, P. (2010). Legal, economic and cultural aspects of file-sharing. *Communications & Strategies*, 77(1), 35-54.

- Van Elburg, A. (2005, 26 April). Businessmodellen weblogs niet wezenlijk anders. *Emerge*. Retrieved from <http://www.emerge.nl/nieuws/businessmodellen-weblogs-niet-wezenlijk-anders>.
- Van Jole, F. & Van Ringelestijn, T. (2005). P2P TV: Dump die decoder. *Bright*, 5. Retrieved from <http://www.bright.nl/node/21>.
- Van Miltenburg, O. (2007, 14 November). Aanhoudingen wegens diefstal virtuele meubels op Habbo. *Tweakers*. Retrieved from <http://tweakers.net/nieuws/50357/aanhoudingen-wegens-diefstal-virtuele-meubels-op-habbo.html>.
- Von Hippel, E. (2005). *Democratizing Innovation*. Cambridge, MA: The MIT Press.
- WAN (2000). *World press trends 2000 edition*. Darmstadt: WAN-IFRA. Retrieved from <http://www.wan-ifra.org/reports/2000/05/01/world-press-trends-2000-edition>.
- WAN (2001). *World press trends 2001*. Darmstadt: WAN-IFRA. Retrieved from <http://www.wan-ifra.org/reports/2001/05/01/world-press-trends-2001-edition>.
- WAN (2005). *World press trends 2005*. Darmstadt: WAN-IFRA. Retrieved from <http://www.wan-ifra.org/reports/2005/06/27/world-press-trends-2005-edition>.
- WAN (2007). *World press trends 2007*. Darmstadt: WAN-IFRA. Retrieved from <http://www.wan-ifra.org/reports/2007/06/20/world-press-trends-2007-edition>.
- WAN (2008). *World press trends 2008*. Darmstadt: WAN-IFRA. Retrieved from <http://www.wan-ifra.org/reports/2008/06/17/world-press-trends-2008-edition>.
- Webster, J.G. (1998). The audience. *Journal of broadcasting & electronic media*, 42(2), 190-207.
- Webster, T. (2007, 19 March). The Infinite Dial: The Podcast Audience Revealed II. The Arbitron/Edison Internet and Multimedia Study 2007. Presentation. Retrieved from <http://www.edisonresearch.com/2007%20Podcast%20Presentation.pdf>.
- Weinberger, D. (2007). *Everything is miscellaneous*. New York: Times Books.
- Wester, F. (2004). *Lessen uit lezen*. Nijmegen: Katholieke Universiteit Nijmegen.
- Winner, L. (1997). Technology today: Utopia or dystopia? *Social Research*, 64(3), 989-1017.
- Wimmer, R.D. & Dominic, J.R. (2005). *Mass media research: an introduction*. Belmont: Thomson Wadsworth.
- Witmer, D.F., Colman, R.W. & Katzman, S.L. (1999). From paper-and-pencil to screen-and-keyboard: toward a methodology for survey research on the Internet. In S. Jones (Ed.), *Doing*

Internet research. Critical issues and methods for examining the net (pp.145-162). Thousand Oaks, London, New Delhi: SAGE Publications.

Van der Wurff, R. (2008). The impact of the internet on media content. In L. Küng, R.G. Picard & R. Towse (Eds.), *The internet and the mass media* (pp.65-85). Los Angeles, London, New Delhi, Singapore, Washington DC: SAGE Publications.

Wyatt, S. (2003). Non-users also matter: The construction of users and non-users of the Internet. In N. Oudshoorn & T. Pinch (Eds.), *How Users Matter: The Co-construction of Users and Technology* (pp.67-79), Cambridge, MA: MIT Press.

Wyatt, S. (2008). Technological determinism is dead; long live technological determinism. In E.J. Hackett, O. Amsterdamska, M. Lynch & J. Wajcman (Eds.), *The handbook of science and technology studies* (pp. 165-180). Cambridge, Massachusetts, London, England: MIT Press.

Yen, Y.W. (2008, 25 March). YouTube looks for the money clip. *CNNMoney*. Retrieved from <http://tech.fortune.cnn.com/2008/03/25/youtube-looks-for-the-money-clip/>.

Yeon-Ho, O. (2007, 26 February). 10 Preconditions for the value of user-generated content. Retrieved from http://english.ohmynews.com/articleview/article_view.asp?article_class=8&no=347268&rel_no=1

Yoo, C. (2007, 24 October). Giants of citizen media meet up. Founders of OhMyNews, Wikipedia compare visions. *The Tyee*. Retrieved from <http://thetyee.ca/Mediacheck/2007/10/24/WikiVOhMyNews/>.

Yuan, K, Qin, W., Wang, G., Zeng, F., Zhao, L., Yang, X., Liu, P., Liu, J., Sun, J., Deneen, K.M. von, Gong, Q., Liu & Y, Tian, J. (2011). Microstructure Abnormalities in Adolescents with Internet Addiction Disorder. *PLoS One*, 6(6), doi 10.1371/journal.pone.0020708.

Zakon, R.H. (2006). Hobbes Internet Timeline. Retrieved from <http://www.zakon.org/robert/internet/timeline/#Growth>.

Previous publications

During the B@Home project, between 2005 and 2009, a number of studies and articles have been published that laid the foundations for or built upon this dissertation. These publications are the following:

- Slot, M. (2009). Web roles re-examined: exploring user roles in the online media entertainment domain. Conference Proceedings COST Conference The Good, The Bad and The Challenging, Copenhagen May 2009.
- Frissen, V.A.J. & Slot, M. (2009). The return of the bricoleur: redefining media business. Conference Proceedings COST Conference The Good, The Bad and The Challenging, Copenhagen May 2009.
- Slot, M. (2009). A clear case of 'virtucoolness :P'. Conducting discussion groups in online communities. *Observatorio*, 3(1), 239-259.
- Slot, M. (2009). Exploring user-producer interaction in an online community: the case of Habbo Hotel. *International Journal of Web Based Communities*, 5(1), 33-48.
- Slot, M. & Frissen, V.A.J. (2008). Users in the information society: Shaping a 'golden age'? In: J. Pierson, E. Mante-Meijer, E. Loos & B. Sapio (Eds.). *Innovating for and by users*. Brussels: COST Office, pp.195-208.
- Slot, M. (2008). Over hobbyisten, bandieten en digitale reclamezuilen. Nieuwe verhoudingen in de media en entertainment sector. In: V. Frissen, & J. de Mul (Eds.). *De draagbare lichtheid van het bestaan. Het alledaagse gezicht van de informatiesamenleving*. Kampen, Kapellen: Klement, pp. 97-115.
- Slot, M. (2008). Expanding user roles in digital television. In: A. Urban, B. Sapio & T. Turk (Eds.). *Digital Television Revisited. Linking users, markets and policies*. Workshop proceedings COST Action 298 'Participation in the Broadband Society', pp.108-122.
- Slot, M. & Frissen, V.A.J. (2007). Users in the 'golden' age of the information society. *Observatorio (OBS*) Journal*, 3, 201-224.
- Slot, M. (2007). Changing user roles in ICT developments; the case of digital television. *Telematics and Informatics*, 24(4), 303-314.
- Slot, M. (2007). *User-producer interaction in an online community; the case of Sugababes. Case study report*. Freeband B@Home WP2 deliverable 2.27.
- Slot, M. & Frissen, V.A.J. (2007). Users in the "golden" age of the information society. COST 298 Conference proceedings, May 23-26, Moscow.

- Slot, M. (2007). User-producer interaction in an online community; the case of Habbo Hotel. Conference proceedings IADIS International Conference on Web Based Communities 2007, Salamanca, Spain February 18-20, pp.95-102.
- Slot, M. (2007). *Future users. An exploration of future user roles in online media and entertainment services; four scenarios*. B@Home project WP2, Deliverable 2.18, Freeband.
- Slot, M. (2006). *Conceptualizing the dynamics between users and businesses in the media and entertainment domain*. B@Home project WP2, Deliverable 2.17, Freeband.
- Slot, M. (2006). The changing role of users in ICT developments; the case of digital television. Paper presented at the 2nd conference (Next Generation Broadband – Users and Content) of the Center for Information and Communication Technologies at the Technical University of Denmark (December 1-2, Kopenhagen Denmark).
- Limonard, S., Slot, M. & Tee, R. (2005). Changing user-producer relations in broadband services. Paper presented at the 16th European Regional Conference of the International Telecommunications Society (September 4-6, Porto Portugal).
- Slot, M. (2005). *Conceptual framework for user oriented business modelling*. Freeband B@Home project deliverable 2.3.

List of figures and tables

FIGURE 1 CULTURAL VALUE CHAIN _____	38
FIGURE 2 NUMBER OF INTERNET USERS BETWEEN 1995 AND 1999 _____	44
FIGURE 3 INTERNET USAGE GROWTH IN MILLION _____	45
FIGURE 4 TOTAL SHIPMENT MUSIC UNITS IN THE US 1990-2009 - MILLION UNITS _____	50
FIGURE 5 SHIPMENT STATISTICS PER CARRIER 1990-2009 - MILLION UNITS _____	51
FIGURE 6 TOTAL VALUE US MUSIC SALES 1990-2009 _____	52
FIGURE 7 WORLDWIDE BOX OFFICE SALES IN BILLIONS OF DOLLARS 2001–2009 _____	57
FIGURE 8 US AND EU CINEMA ADMISSIONS 1990-2009 _____	58
FIGURE 9 US CONSUMER HOME ENTERTAINMENT SPENDING 1999-2009 _____	59
FIGURE 10 ONLINE RADIO CONSUMPTION 2007 _____	62
FIGURE 11 GLOBAL RADIO INDUSTRY REVENUES 2001-2008 _____	63
FIGURE 12 GLOBAL TELEVISION VIEWING 2004-2009 _____	65
FIGURE 13 GLOBAL TELEVISION REVENUE 2002-2009 _____	66
FIGURE 14 SALE OF E-BOOKS IN THE US 2002-2010 (Q2) _____	75
FIGURE 15 CONSUMER EXPENDITURE ON MAGAZINES UK 1991-2006 _____	77
FIGURE 16 US GAME REVENUE 2005-2009 _____	80
FIGURE 17 USER TO USER TRANSACTIONS IN SECOND LIFE 2006-2008 _____	83
FIGURE 18 THE TRIPLE ARTICULATION OF MEDIA USERS _____	91
FIGURE 19 USERS AS AUDIENCE MODEL (BASED ON WEBSTER, 1998) _____	93
FIGURE 20 THE LINEAR INNOVATION DEVELOPMENT PROCESS (BASED ON ROGERS, 1995) _____	105
FIGURE 21 S-SHAPED CURVE AND ADOPTER TYPES _____	107
FIGURE 22 BUSINESS MODEL LEVELS _____	125
FIGURE 23 ONLINE MEDIA ENTERTAINMENT DOMAIN _____	138
FIGURE 24 START YEAR MEDIA SERVICES IN CASE SAMPLE (N=125) _____	147
FIGURE 25 POSSIBLE USER ROLES IN ONLINE MEDIA SERVICES (N=125) _____	148
FIGURE 26 TAG CLOUD CONSUMPTION _____	149
FIGURE 27 CONSUMPTION SUB-ROLES (%) (N=125) _____	149
FIGURE 28 TAG CLOUD CREATE _____	152
FIGURE 29 SUB-ROLES CREATE (%) (N=125) _____	152
FIGURE 30 TAG CLOUD CONTRIBUTE _____	154
FIGURE 31 SUB-ROLES CONTRIBUTE (%) (N=125) _____	154
FIGURE 32 TAGCLOUD SHARE _____	155
FIGURE 33 SUB-ROLES SHARE (%) (N=125) _____	155

FIGURE 34 TAG CLOUD FACILITATE _____	156
FIGURE 35 SUB-ROLES FACILITATE (%) (N=125) _____	157
FIGURE 36 TAG CLOUD COMMUNICATE _____	159
FIGURE 37 SUB-ROLES COMMUNICATE (%) (N=125) _____	159
FIGURE 38 TAGCLOUD OF ALL POSSIBLE USER ROLES IN ONLINE WEB SERVICES _____	162
FIGURE 39 USER ROLES IN ONLINE MEDIA SERVICES (%) (N=125) _____	164
FIGURE 40 PRODUCER ROLES IN ONLINE MEDIA SERVICES _____	165
FIGURE 41 TAG CLOUD PUBLISH _____	167
FIGURE 42 PERCENTAGES SUB-ROLES PUBLISH _____	167
FIGURE 43 TAG CLOUD FACILITATE (PRODUCER ROLE) _____	168
FIGURE 44 SUB-ROLES FACILITATE (%) (N=125) _____	169
FIGURE 45 TAG CLOUD CONSULT _____	170
FIGURE 46 SUB-ROLES CONSULT (%) (N=125) _____	171
FIGURE 47 TAG CLOUD PROMOTE _____	172
FIGURE 48 SUB-ROLES PROMOTE (%) (N=125) _____	172
FIGURE 49 TAG CLOUD SELL _____	174
FIGURE 50 SUB-ROLES PROMOTE (%) (N=125) _____	174
FIGURE 51 ACCESSIBILITY ONLINE MEDIA SERVICES (N=125) _____	177
FIGURE 52 INCOME ONLINE MEDIA SERVICES (N=125) _____	178
FIGURE 53 AVERAGE MINUTES ONLINE A DAY PER AGE GROUP (N=598) (SPARE TIME) _____	191
FIGURE 54 GENDER DIFFERENCES IN USER TYPES (N=598) _____	193
FIGURE 55 USER TYPE BY AGE GROUP (N=598) _____	194
FIGURE 56 COMPUTER SKILLS (N=598) _____	195
FIGURE 57 MEDIA TECHNOLOGY OWNERSHIP (%) (N=598) _____	196
FIGURE 58 CONVERGENT MEDIA USE (N=598) _____	197
FIGURE 59 OVERVIEW OF OFFLINE MEDIA USE (N=598) _____	199
FIGURE 60 OFFLINE ACTIVITIES AND AGE: MEET FRIENDS (N=598) _____	200
FIGURE 61 OFFLINE ACTIVITIES AND AGE: LISTEN TO MUSIC (N=598) _____	200
FIGURE 62 OFFLINE ACTIVITIES AND AGE: BUYING BOOKS (N=598) _____	201
FIGURE 63 OFFLINE ACTIVITIES AND GENDER: KEEPING A DIARY (N=598) _____	202
FIGURE 64 OVERVIEW OF ONLINE USER ACTIVITIES (N=598) _____	203
FIGURE 65 USER ROLES PER AGE GROUP (N=598) _____	204
FIGURE 66 OVERVIEW OF CONSUMPTION ROLES (N=598) _____	205
FIGURE 67 SOCIAL NETWORKING PER AGE GROUP (N=598) _____	207
FIGURE 68 OVERVIEW OF COMMUNICATING ROLES (N=598) _____	208

FIGURE 69 PLACING A PUBLIC MESSAGE/GENDER (N=598)	209
FIGURE 70 SENDING A PRIVATE MESSAGE THROUGH A SERVICE/GENDER (N=598)	210
FIGURE 71 OVERVIEW COMMUNICATING ACTIVITIES RELATING TO AGE (N=598)	211
FIGURE 72 OVERVIEW OF CREATING ROLES (N=598)	212
FIGURE 73 CHANGE INFORMATION ON PERSONAL SITE PER AGE GROUP (N=598)	213
FIGURE 74 OVERVIEW OF CONTRIBUTING AND SHARING ROLES (N=598)	215
FIGURE 75 OVERVIEW OF FACILITATING ROLES (N=598)	216
FIGURE 76 RATING CONTENT PER AGE CATEGORY (N=598)	217
FIGURE 77 COMPARISON BETWEEN POSSIBLE AND ACTUAL USER ROLES	219
FIGURE 78 AVERAGE LEVEL OF USER PARTICIPATION (N=598)	220
FIGURE 79 OFFLINE VERSUS ONLINE MUSIC USE (N=598)	221
FIGURE 80 OFFLINE VERSUS ONLINE FILM USE (N=598)	222
FIGURE 81 OFFLINE VERSUS ONLINE BOOK USE (N=598)	223
FIGURE 82 OFFLINE NEWSPAPER USE (N=598)	224
FIGURE 83 OFFLINE VERSUS ONLINE NEWS USE (N=598)	225
FIGURE 84 OFFLINE VERSUS ONLINE GAME ACTIVITIES (N=598)	226
FIGURE 85 CLICKING ON ADVERTISEMENTS (N=598)	227
FIGURE 86 GENDER AND THE USE OF P2P (N=598)	229
FIGURE 87 GENDER AND THE USE OF OPEN SOURCE SOFTWARE (N=598)	229
FIGURE 88 STATEMENT 1 (N=598)	230
FIGURE 89 STATEMENT 2 (N=598)	231
FIGURE 90 STATEMENT 3, 4, 5 AND 6 (N=598)	231
FIGURE 91 STATEMENT 7, 8 AND 9 (N=598)	232
FIGURE 92 TAG CLOUD ALL USER ROLES	234
FIGURE 93 HABBO RESEARCH ROOM	240
FIGURE 94 HABBO CHARACTER	240
FIGURE 95 ONLINE ACTIVITIES HABBO USERS	247
FIGURE 96 HABBO FRIENDSHIP THESES (N=3219)	249
FIGURE 97 NUMBER OF AVATARS PER HABBO USER (N=3219)	250
FIGURE 98 TIME SPENDING IN HABBO (N=3219)	252
FIGURE 99 HABBO CREATION ACTIVITIES (N=3219)	254
FIGURE 100 COMMUNICATING WITH HABBO STAFF (N=3219)	257
FIGURE 101 HABBO SPENDING (N=3219)	264
FIGURE 102 SPENDING ON HABBO (N=3219)	264

TABLE 1 TECHNOLOGICAL REVOLUTIONS ACCORDING TO PEREZ (2002, p.11).....	42
TABLE 2 USER ROLES.....	143
TABLE 3 PRODUCER ROLES	144
TABLE 4 FINANCIAL VARIABLES.....	145
TABLE 5 TECHNICAL ARCHITECTURE	146
TABLE 6 CONSUMPTION ROLES MADE AVAILABLE PER MEDIA DOMAIN	151
TABLE 7 SUB-ROLES CREATE PER MEDIA DOMAIN.....	153
TABLE 8 SUB-ROLES CONTRIBUTE PER MEDIA DOMAIN.....	154
TABLE 9 SUB-ROLES SHARE PER MEDIA DOMAIN	156
TABLE 10 SUB-ROLES FACILITATE PER MEDIA DOMAIN	158
TABLE 11 SUB-ROLES COMMUNICATE PER MEDIA DOMAIN	160
TABLE 12 CREATE CONTENT PER MEDIA DOMAIN.....	166
TABLE 13 SUB-ROLES PUBLISH PER MEDIA DOMAIN.....	167
TABLE 14 SUB-ROLES FACILITATE PER MEDIA DOMAIN	170
TABLE 15 SUB-ROLES CONSULT PER MEDIA DOMAIN	172
TABLE 16 SUB-ROLES PROMOTE PER MEDIA DOMAIN	173
TABLE 17 RATE PER MEDIA DOMAIN	173
TABLE 18 SUB-ROLES SELL PER MEDIA DOMAIN	174
TABLE 19 AGE DIVISION RESPONDENTS SURVEY.....	188
TABLE 20 AGE GROUPS AND OWNERSHIP OF MEDIA TECHNOLOGIES	197

Appendix 1: Quantitative content analysis: services

Name	URL	DSCR
23hq	http://www.23hq.com/	23hq is a service that allows users to upload, store, share and manage photos online.
9rules	http://www.9rules.com	Collection of weblogs
About2findout	http://www.about2findout.com	Website with trivia-quizzes about a variety of subjects.
Agoravox	http://www.agoravox.fr	Platform for citizen(amateur/user) journalism.
Allmusic	http://www.allmusic.com	A large online source of information about music, featuring descriptive, relational and editorial content.
Artist direct	http://www.artistdirect.com	Social network website offering user information and news about music, artists, shows and releases. Users can listen, share, rate, download and buy music.
Asoboo	http://www.asoboo.com	social website which connects people, their interest, places around the world, and the things they want to do. Also a weblog
Babelgum	http://www.babelgum.com	Video and music website with a focus on the Indie genre, with social networking possibilities
Bandnews	http://www.bandnews.com	News aggregator/search engine for news about (musci)bands
Battleout	http://www.battleout.com	website directed at challenging other users to a photo-battle.
BBC iPlayer	http://www.bbc.co.uk/iplayer/	Online video- and radio-portal for the BBC network
be.ajexilious	http://movies.ajaxilicious.be/	website for sharing lists of favorite movies.
Bibli	http://www.bibli.ca/	Website where users can share short textual works with eachother.
Big Contact	http://www.bigcontact.com	Media publishing (photo, film, video) website with online tools.
Bigcartel MerchBoss	/ http://www.bigcartel.com	website that offers tools to build a simple webstore.

Blabbit	http://www.blabbit.com/	Reviewing website for media such as film and video games
Blinkx	http://www.blinkx.com	Video search engine
Blip.tv	http://www.blip.tv	Television and video sharing website, offering users servers, the software, the workflow, the advertising and the distribution. Leaving the users free to focus on creativity
Blo.gs	http://www.blo.gs	Aggregator of weblogs
Blogger	http://www.blogger.com	Provides users with tools and web space to create their own weblog
Bloglines	http://www.bloglines.com	Webbases Rss-reader and search engine
BlogPulse	http://www.blogpulse.com	BlogPulse is an automated trend discovery system and search engine for webblogs.
Blogtronix	http://www.blogtronix.com	Blogtronix offers users and bussinesses the tools to build (social) webcommunities
BlogTV	http://www.blogtv.com	BlogTV is a service that provides users with a live weblog/webcam broadcast platform
Blurb	http://www.blurb.com	Blurb offers user software and printing possibilities to create their own hardcopy book.
Bookcrossing	http://www.bookcrossing.com	Service that lets users release and catch books in real life.
BuzzMachine	http://www.buzzmachine.com	Blogs about media and news written by Jeff Jarvis.
BuzzNet	http://www.buzznet.com	Online music community.
Castpost	http://www.castpost.com	Webhost for video clips.
CitizenSide	http://www.citizenside.com	Website offers (amateur)producers of photo and video material a place to host their content, and also get in contact with (professional)buyers of this material.
Clickcaster	http://www.clickcaster.com	webhosting service specialized for podcast, but also usable for video and photo publishing
Clipmarks	http://www.clipmarks.com	Digital clipbook for text, audio and images that are found on the web.

Clipshack	http://www.clipshack.com	ClipShack is a community for videophiles; a destination where people can post their video for general public viewing and comment, share clips with friends and family, post video to blogs, share information and feedback and gain industry information relevant to digital video creation.
CoComment	http://www.cocomment.com	coComment is a service for managing, powering and researching conversations online. When using coComment, users can keep track of their comments across any site, share them with friends, and get notified when they get a response.
Comagz	http://www.comagz.com	Open blog in magazine style where users can submit, read and vote for content
Crackle	http://www.crackle.com	Multi-platform next-generation video entertainment network that distributes digital content including original short form series and full-length traditional programming from Sony Pictures' vast library of television series and feature films.
Current	http://www.current.com	Current.com is the place to find and share stories and videos that are interesting to users. It connects to Current TV, a global cable and satellite TV network.
Dailymotion	http://www.dailymotion.com	Dailymotion is a video hosting service website.
Darkorbit	http://www.darkorbit.nl	Multiplayer online shooter.
Deezer	http://www.deezer.com	Music service.
Di.fm	http://www.di.fm	Multi-channel internet radio station specialized in dance music.
Digg	http://www.digg.com	Social news website. Users can digg or bury links to websites. The most popular sites appear on the front page,
Dimvision	http://www.dimvision.com	Visual music search application

Divicast	http://www.divicast.com	Divicast offers users the functionality to publish, enhance, share and track their content
Dizzler	http://www.dizzler.com	Dizzler is a music and video, games and radio search engine, offering free content and offers a MySpace player.
Dodgeball	http://www.dodgeball.com	Dodgeball is a US only application that uses mobile phones to organize meetups with friends and friends of friends that are nearby. The service will be closed down in April 2009. The service is succeeded by Google Latitude.
Dottunes	http://www.dottunes.net	Dottunes is the ultimate iTunes companion allowing users to access, stream and download from libraries in remote networks.
Dovetail.tv	http://www.dovetail.tv	Online distribution company for independent film and television.
Dropshots	http://www.dropshots.com	Free video hosting and photo sharing service.
Eventful	http://www.eventful.com	Eventful is an events website which enables its community of users to discover, promote, share and create events.
Facebook	http://www.facebook.com	Social networking sites
Fastr	http://randomchaos.com/games/fastr/	Game based on Flickr photos. Users need to guess the Flickr tags of a random selection of photos with the same tag. The faster, the more points.
Feedbeat	http://www.feedbeat.com	Web based video playlist content management system
Feedmap.net	http://www.feedmap.net	Local blog and news search engine
Flickr	http://www.flickr.com	Photo sharing network
Fotolia	http://eu.fotolia.com	Royalty free stock photos, images, vectors and video.
Freetube	http://www.freetube.110mb.com	Online TV service. Alternative to cable or satellite television.
Friendster	http://www.friendster.com	Social networking website.
Garageband	http://www.garageband.com	Community to discover and review independent music. Bands can offer their own MP3s.

Gather	http://www.gather.com	Social networking site directed at conversations. Gather is a network where users (primarily adults) gather around specific themes. The network has several sub-domains focusing for example on books, family, food, health and money.
Gcast	http://www.gcast.com	Podcast platform
Glypho	http://www.glypho.com	Reading and writing novels with a group of users.
Google Video	http://video.google.com	Video sharing platform. Users can upload videos and search videos from other websites, for example dailymotion and youtube.
Grooveshark	http://www.grooveshark.com	Music searching and listening service.
Habbo Hotel	http://www.habbohotel.com	Online hotel where users can walk around, chat, meet new friends and create their own hotel room. Various countries have their own hotel in their own language.
Help	http://www.help.com	Social community of people that are helping each other.
Hubpages	http://www.hubpages.com	Hubpages offers users easy-to-use publishing tools. Users can publish their hubs on the website. They can earn recognition from their fellow-hubbers. And they can earn money with their writings through advertising revenues.
Icerocket	http://www.icerocket.com	Blog search engine, but also twitter, news, myspace and images.
iDesktop.tv	http://www.idesktop.tv/	Searching, viewing and downloading YouTube videos. Desktop lay-out.
iLike	http://ilike.com/	Music service where users can find new music, get alerts for concerts and get connected with users who like the same music. Works with existing social network services. Users can also download MP3 songs for free.

IMVU	http://www.imvu.com/	3D chat service
iReport	http://www.ireport.com	User generated news site initiated by CNN
iStockphoto	http://www.istockphoto.com	Photo website where users can store and sell their photographs. Design community.
Jaiku	http://www.jaiku.com	Jaiku is a way to connect with friends by sharing short messages called Jaikus. You can create your own stream of Jaikus and follow your friends.
Jambase	http://www.jambase.com	Music community that connects music lovers and functions as a portal for musical performances.
Jamendo	http://www.jamendo.com	Legal music downloading platform and community
Jango	http://www.jango.com	Online personalized radio station and social community
Joost	http://www.joost.com	Video website
Kaneva	http://www.kaneva.com	3D virtual world and social community. Kaneva parallels reality and lets users share media and build friendships. User-friendly and secure.
Last.fm	http://www.last.fm	Internet radio and music community.
Librarything	http://www.librarything.com	Web application where users can store and share their personal library catalogue lists and book lists
LinkedIn	http://www.linkedin.com	Networking website for professionals
LiveJournal	http://www.livejournal.com	Community website where users can keep a diary, blog, or journal.
LivePlasma	http://www.liveplasma.com	Personal tool that lets users discover music and movies they might like. Discovery engine.
Livestation	http://www.livestation.com	Interactive radio and television service
Lulu	http://www.lulu.com	Users can publish their own books.
Magnatune	http://www.magnatune.com	Independent record label that offers users drm free music and lets them decide for themselves how much they pay.

Magnoto	http://www.magnoto.com	Web service that enables users to create their own page and display and organize personal photos, text, videos and audio content.
MeetUp	http://www.meetup.com	Network for users who want to meet in real life
Miro	http://www.getmiro.com	Free and open source internet television and video player.
MOG	http://www.mog.com	Blog community on music
Multiply	http://www.multiply.com	Personal website service.
Musicoverly	http://www.musicoverly.com	Users can discover music by indicating in which mood they are, varying in different genres.
MySpace	http://www.myspace.com	Social networking website. Specially known for its music pages.
Newsvine	http://www.newsvine.com	Citizen journalism website. Syndicated journalism.
Ning	http://www.ning.com	Users are enabled to create their own social network.
NowPublic	http://www.nowpublic.com	Crowd powered media. Service that lets users generate news.
OhMyNews	http://www.ohmynews.com	Citizen journalism website
OpSound	http://www.opsound.org	Music communities that enables artists to upload their music and sounds under a copyleft license and allows users to download, share, remix and reimagine.
Orato	http://www.orato.com	Online magazine compiled of citizen journalist admissions
Orkut	http://www.orkut.com	Social networking website
Ourstage	http://www.ourstage.com	Music discovery and rating website
Panoramio	http://www.panoramio.com	Photo sharing service using geotags
Phanfare	http://www.phanfare.com	Photo and video storage website.
Phlog	http://www.phlog.net	Photo blogging service
Piczo	http://www.piczo.com	Website builder. Online community.
Pixelfish	http://www.eyespot.com	Online, mobile and broadcast video solutions for business users
Plazes	http://www.plazes.com	Location based service that enables users to share their location.

Plogger	http://www.plogger.org	Open source photo gallery service.
Podbop	http://www.podbop.org	Podcasting service where users can listen to songs of artists performing in their city area.
Podomatic	http://www.podomatic.com	Podcasting service that enables users to create, find and share podcasts.
Readitswapit	http://www.readitswapit.com	Service where users can swap the books they have already read with others
Reddit	http://www.reddit.com	Social news sharing website where users can rate links to news messages
Revver	http://www.revver.com	Video sharing website
Second Life	http://www.secondlife.com	3D virtual world
Sellaband	http://www.sellaband.com	Music website where artists can upload their songs and the users can become believers and donate money.
Sleeveface	http://www.sleeveface.com	Website where users can upload their own pictures featuring album sleeves.
Songbird	http://www.getsongbird.com	Free open source software audio player and web browser
Stickam	http://www.stickam.com	Live streaming social community.
Tribler	http://www.tribler.org	P2P television service
Twitter	http://www.twitter.com	Microblogging service
Vimeo	http://www.vimeo.com	Video sharing website
Wikipedia	http://www.wikipedia.org	Online user generated encyclopedia
YouTube	http://www.youtube.com	Video sharing website
Zoomr	http://www.zoomr.com	Photo sharing website without data limits

Appendix 2: Quantitative content analysis code book

1. Service Characteristics			
1.1	RVWR	Reviewers' initials	TEXT Fill in your own initials (first letter first name and first and last letter last name. For example: Sanne Huveneers → SHS or Mijke Slot → MST)
1.2	DATE	Date of analysis	dd-mm-yyyy
1.3	NAME	Service name	TEXT → Name
1.4	ADDR	Web address	http://www . Only enter the web address without adding http://www .
1.5	DESC	Short description/ objective of the service	TEXT Try to explain the main objective of the service in one or two sentences.
1.6	TAGS	Tagwords (5 separate fields)	Add keywords that describe the service best (for example community, news, search engine, user-generated content, video or politics)
1.7	EMBS	Embeddedness	<ol style="list-style-type: none"> 1. Stand-alone service 2. Part of a service portfolio – specify in TEXT 3. Unclear <p>The way the service operates online – is it completely independent or part of a larger whole.</p> <p>A <u>stand-alone service</u> is no part of a larger service portfolio. It has its own web address and functions independently. When a service is <u>part of a service portfolio</u>, it is a part of a range of services offered by one provider- for example a broadcasting station (but – the</p>

			service can still work independently). This can be deducted for example from the fact that the website is an extension of an existing website. A non-existing example: www.rtl4.nl/weblogs. If not clear - select <u>unclear</u> .
1.8	ONLN	Online since	YYYY For date – search the ‘about us’ section. If not documented, check for a Wikipedia page about the service. If not present – check the Wayback Machine. Check for the first update of the service. You can find the wayback machine at: http://www.archive.org/web/web.php
1.9	VERS	Version	<ol style="list-style-type: none"> 1. Fully operational 2. Bèta version 3. Concept version 4. Unclear <p>The state of development of the service A web service is in <u>concept version</u> if most of the functionalities are still ‘under construction’. A <u>bèta (or test) version</u> is for the largest part operational. The name of the service will indicate <i>bèta</i>. If a service is not under construction and does not have the term <i>bèta</i> near its name – check <u>Fully operational</u>. If not clear - select <u>unclear</u>.</p>
1.10	INNA	Name initiative takers	TEXT → Names Who took the initiative to start the service? For names of the initiative takers – search the ‘about us’ section. If not documented, check for a Wikipedia page about the service. If unclear – enter a question mark – ?
1.11	OWNR	Owner	TEXT → Name Who owns the service? The name of the company or co-ordinating agency that owns the service. If unclear – enter a question mark – ?.

1.12	INIT	Initiative	<ol style="list-style-type: none"> 1. State (public) 2. Private (business) 3. Civil society (non-profit) 4. User initiative 5. Unclear <p>Which organization is coordinating the initiative? Select <u>state</u> if the initiative is taken by a government or government owned public organization. A <u>private</u> party is always a business directed at making a direct or indirect profit. If an organization does not strive for profit, but serves for example a more idealistic goal, check <u>civil society</u>. If the initiative takers are a loosely connected group of individuals (or one individual), without a clear organizational structure and not directed at making a profit – select <u>user initiative</u>.</p>
1.13	USE	Service is directed at... (multiple answers possible)	<ol style="list-style-type: none"> 1. Public organizations 2. Businesses 3. Civil society organizations 4. Users 5. Unclear <p>Target group of the service. Indicate the target group of the service. For an explanation – see variable 1.11.</p>
1.14	CHUS	Character of use	<ol style="list-style-type: none"> 1. Professional 2. Recreational 3. Functional 4. Other <p>Why do users utilize the service? Try to find out the main goal. The goal of a service can be characterized as <u>professional</u> when users utilize the service to support them in their work. For example a web-based videoconferencing service that can be used by companies to facilitate discussion. A service is <u>recreational</u> when users are engaging in the service in their spare time, to relax or pass the time. Examples are most photo and video websites,</p>

			or social communities without a specific functional goal. <u>Functional</u> character of use can be chosen when a web service is not mainly directed at professional use, but has specific characteristics that enables users a functional use. For example websites that are directed at generating information for specific user groups – for example patients. Also most public service websites have a functional goal – bringing people together for activism or education purposes. If <u>other</u> → specify in text.
1.15	COUN	Country the service is initiated	List of countries (can be adapted from: http://en.wikipedia.org/wiki/List_of_countries)
1.16	LANG	Languages of service	List of languages (e.g. can be adapted from the list on http://en.wikipedia.org/wiki/List_of_languages_by_name) In which main language is the website written?
1.17	USCH	Target user characteristics (multiple answers possible)	1. General/ unspecified 2. Age 3. Gender 4. Nationality 5. Ethnicity 6. Religion 7. Profession 8. Other specific user group details (in text) Does the website target specific user groups, for example elderly, people living in the US or people with a certain religion? If other – specify in text specific user group details. If not – choose general/ unspecified.
1.18	CHAR	Main service characteristics (multiple answers possible)	1. Selling – marketplace 2. Selling – commercial service 3. Information – knowledge 4. Information – news 5. Network 6. Facilitating – tools

			<p>7. Facilitating – bookmarking 8. Facilitating – search engine 9. Storage 10. Other</p> <p>What is the main “selling point” of the service? For what purpose is it on the Internet? Multiple answers can be chosen.</p> <p>If the main service characteristic is <u>selling – marketplace</u> it offers users a space to trade, buy and sell. For example the Dutch website Marktplaats or eBay. If a website is a <u>commercial service</u>, the main party that offers goods is one business – often the service initiator. Examples are – Bol.com, Amazon.com or Albert.nl. Choose <u>information – knowledge</u> if a service is directed at providing or facilitating information sharing or retrieval. <u>Information – news</u> is a service mainly directed at news messages – for example newspaper websites or news services. The main service characteristic should be <u>network</u> if it mainly facilitates the connection of different users for network purposes – friendly, functional or business alike e.g.; Friendster, Hyves, MySpace or LinkedIn. The main service characteristic is <u>facilitating – tools</u> if a service offers users functionalities to perform certain tasks. Examples are web-based office functionalities like Writely, spreadsheet services or tools to make a website or community. This category also includes services like Google Maps or Google Earth. If a service is <u>facilitating – bookmarking</u> it is build around a system where users can bookmark/tag other websites or content to make it more easily accessible for themselves and each other. Choose the option <u>facilitating – search engine</u> if a service is mainly a search engine where users can search the Internet or content of other services in various ways. Just like bookmarking websites, search engines most often do not provide content or information themselves. They use other sites and services for their content. The main service characteristic is <u>storage</u> if a site enables users</p>
--	--	--	--

			to store large datafiles. These services must enable <i>uploading</i> of data. If <u>other</u> – specify in text.
1.19	DOMN	Service domain (multiple answers possible)	<ol style="list-style-type: none"> 1. Hobby 2. Spare time 3. Health/ wellbeing 4. Learning/ education 5. Inclusion 6. Safety 7. Mobility 8. Immigration/ integration 9. Government general/ politics 10. Activism 11. Legal/ law 12. Democracy 13. Environment/ climate 14. Social cohesion 15. News 16. Music 17. Press 18. Broadcasting 19. Film & Video 20. Other <p>Indicate in which service domain the case operates. Multiple answers can be chosen. <u>Hobby</u> indicates a service directed at amateurs and pro-ams (Leadbeater and Miller 2004). Users can interact in this service in their spare time, but with a specific, functional goal – to broaden their knowledge about trains or trade stamps or sell their self-made apple pies, or get in touch with users who also play the trumpet. This differs from the <u>spare time</u> category, in which users are engaged to pass time, without a specific functional goal. Examples are community sites or video sharing websites. <u>Health/ wellbeing</u>, <u>Learning/ education</u>, <u>Inclusion</u>, <u>Safety</u>, <u>Mobility</u>, <u>Immigration/ integration</u> and <u>Government general/ politics</u>, <u>activism</u>, <u>legal/ law</u>, <u>democracy</u>, <u>environment/ climate</u>, and <u>social cohesion</u> are categories most often (but not exclusively) linked to public services. Categories 15 until 19 are directed</p>

			at the media and entertainment domain. If <u>other</u> – specify in text.
1.20	CONT	Character content (multiple answers possible)	<ol style="list-style-type: none"> 1. Photo 2. Video 3. Audio – podcast 4. Audio – music 5. Audio – radio 6. Text – news 7. Text – information 8. Text – weblog 9. Games 10. Other (specify in text) <p>What kind of content is provided by the website/ service? Multiple answers are possible.</p> <p>The service provides <u>photo</u> content if the service initiators place photos on the website or if users can upload their own photos. A photo to illustrate a user profile does <i>not</i> qualify as photo content on a website if no other photos are provided on the site. Select <u>video</u> if a service offers video content or users are enabled to upload their own videos – as well downloadable videos as streaming video content. A <u>podcast</u> is a downloadable audio file, most often containing speech. <u>Music</u> can be streamed or downloaded as a file. Music files do not contain commentary or speech provided by another user or the service initiator. A music video should be classified as <i>video</i>. <u>Radio</u> is never downloadable – always a stream. It is most often (but not always) accompanied by speech. The user does not have all the agency to determine which music is played. The radio station, DJ or system selects music, although sometimes the music choice can be customized by the user, for example by letting the system know which songs the user doesn't like. <u>News</u> always involves recent updates of developments on specific issues. <u>Information</u> not necessarily contains recent developments. A <u>weblog</u> can contain both news and information and is characterized by the presence of one author (or a small group of authors) that posts new</p>

			entries regularly. A service can also provide a <u>game</u> or games. If <u>other</u> content is provided – specify in text.
1.21	SOCN	Social networking aspects (multiple answers possible)	<ol style="list-style-type: none"> 1. Network of contacts 2. Possibility to meet others 3. Public user profiles 4. Send public message 5. Send private message to other user 6. Forum 7. User can add contacts 8. None <p>This variable indicates whether the service contains networking aspects. Multiple answers can be selected.</p> <p>If a service is enabling users to have a <u>network of contacts</u>, users are allowed to have a friends or contact list. These contacts do not necessarily have to be voluntarily chosen, they can also be assigned. But users must be enabled somehow to contact their friends/ contacts one way or another. Select option 2 if users are enabled to <u>meet other users</u>. They should somehow have an option to get in touch with these users. Is a service has user profiles that are visible for other users of the service, select <u>public user profiles</u>. Users can send a <u>public message</u> when this message can be read by all users, for example on the homepage of the service. This for example is the case when users can place comments on a news website. Users should not be able to block anyone from reading the message. If there is a private messaging system, where messages cannot be read by other (unselected) users, select <u>send private message to other user</u>. This can be an instant messaging system or a mail system. If the service contains a <u>forum</u> select option 6. A forum always is a bulletin board system where users can place various discussion threads and react to these discussions. When a <u>user can add contacts</u> to his/her own network, select option 7. If a service does not contain <i>any</i> of these social networking aspects, please select <u>none</u>.</p>

1.22	INTA	Interaction	<ol style="list-style-type: none"> 1. <u>Producer</u> → Users 2. <u>Users</u> → Producer 3. <u>Users</u> → Users 4. <u>Producer</u> ↔ Users 5. <u>Users</u> ↔ Producer 6. <u>Users</u> ↔ Users <p>This variable indicates the direction of the interaction on the website. The party that is leading in the interaction by using the service is underlined. The arrows indicate the direction of the interaction.</p> <ol style="list-style-type: none"> 1. The producing party (government/ business/ civil society) is taking the initiative for the service, and most interaction is one-way, from initiative taker to the users. 2. The users are leading in the interaction, and their efforts are directed at the producing party. 3. Users are leading in the interaction and they interact mainly with other users. 4. Producers are leading in the interaction, but interaction is two-way, evenly divided among users and producers. 5. Users are leading in the interaction, but interaction is two-way, evenly divided among users and producers. 6. Users are leading in the interaction, but interaction is two-way, evenly divided among users and other users.
1.23	VIST	Number of monthly visitors	<p>NUMBER</p> <p>Note down the number of unique visitors per month. Sometimes, this number is documented on the website of the service. Sometimes, these figures are documented on a Wikipedia page of the service or on http://www.alex.com. If not available – leave empty.</p>

1.24	MEMB	Number of members	NUMBER Indicate whether the service reveals the number of members. Check the (possible) Wikipedia page of service or try Google ("number of users <service>"). If not clear – leave empty.
1.25	ALEX	Alexa Traffic Rank	NUMBER Search the website on www.alexa.com to find the Alexa traffic rank. If the service is not in the top 100.000 of most visited websites, type no .
1.26	USCO	Most users come from	List of countries (can be adapted from: http://en.wikipedia.org/wiki/List_of_countries) Indicate from which country most users come from
1.27	WIKI	Wikipedia page of service	Yes/ No Indicate if a service has a Wikipedia page of its own.
1.28	LOCA	Localized versions of website (multiple answers possible)	NUMBER List of languages (e.g. can be adapted from the list on http://en.wikipedia.org/wiki/List_of_languages_by_name) Indicate the languages in which the website is translated. Also an option "none"

2. User roles				
2.01	CNSM	Consume	2.01.1 View	1. Yes 2. No 3. Maybe/ unclear Are users enabled to view photos, videos,

				cartoons, artwork or other imagery?
			2.01.2 Listen	1. Yes 2. No 3. Maybe/ unclear Are users enabled to listen to music, speech, sounds or other audio?
			2.01.3 Read	1. Yes 2. No 3. Maybe/ unclear Does the service contain text, for example news messages or information?
			2.01.4 Simulate/ play	1. Yes 2. No 3. Maybe/ unclear Are users enabled to play a game or get involved in a simulation?
			2.01.5 Download	1. Yes 2. No 3. Maybe/ unclear Can users download content or other files from a central server or a P2P system onto their computer?
			2.01.6 Buy products	1. Yes 2. No 3. Maybe/ unclear Can users buy products on the website of the service?

			2.01.7 Search	1. Yes 2. No 3. Maybe/ unclear Does the service have a 'search' functionality?
			2.01.8 Obtain services	1. Yes 2. No 3. Maybe/ unclear Can the users subscribe to/ order services?
			2.01.9 Obtain information	1. Yes 2. No 3. Maybe/ unclear Can the user read, collect or order information?
			2.01.10 Subscribe to newsletter	1. Yes 2. No 3. Maybe/ unclear Can users subscribe to a newsletter by giving their e-mail address of home address?
2.02	CRT1	Create	2.02.1 Customize	1. Yes 2. No 3. Maybe/ unclear Can users customize the service? Customization is the possibility to personalize the looks of the service or parts of the service according to some pre-defined options.

			2.02.2 Create content	1. Yes 2. No 3. Maybe/ unclear <p>Are users enabled to create their own content? For example; upload photos, create video or write weblog. Users create something themselves, from scratch. Often user-created content needs to be uploaded to the service, while customization is often web based.</p>
			2.02.3 Produce	1. Yes 2. No 3. Maybe/ unclear <p>Users are producing when they can make content available – uploading content for example. This is not necessarily content they have created themselves. They can also make content available made by others, or remix content and place it online.</p>
2.03	CNTR	Contribute	2.03.1 Add information	1. Yes 2. No 3. Maybe/ unclear <p>Can users add information to an existing database or website?</p>
			2.03.2 Vote/ decide	1. Yes 2. No

				<p>3. Maybe/ unclear</p> <p>Can users vote or decide on certain subjects or join polls?</p>
			2.03.3 Object	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Is there a way users can object to certain things? For example by clicking a button?</p>
2.04	SHPU	Share/ Publish	2.04.1 Upload	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Can users upload data files like photos, large text files or videos to the service?</p>
			2.04.2 Send	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Are users enabled to send content/ links/ files directly to other users?</p>
2.05	FAC1	Facilitate	2.05.1 Recommend	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the service have a direct recommendation system that can be used to recommend certain content/ information/ files to one another? A regular 'comment' field does not qualify.</p>

			2.05.2 Create channel	1. Yes 2. No 3. Maybe/ unclear Are users enabled to create their own channel? For example a video channel or a certain stream of content (e.g. music).
			2.05.3 Tag content	1. Yes 2. No 3. Maybe/ unclear Are users allowed to tag content? This can be content they have uploaded themselves or other content present on the website.
			2.05.4 Geotag	1. Yes 2. No 3. Maybe/ unclear Does the service have a geotag system?
			2.05.5 Filter content	1. Yes 2. No 3. Maybe/ unclear Are users enabled to filter content according to certain options? For example are they enabled to block certain content or make content available for a specific user group (for example only for the friends in their friends list)?
			2.05.6 Subscribe to stream/ RSS	1. Yes 2. No

				<p>3. Maybe/ unclear</p> <p>Can users subscribe to a content stream or does the service enable RSS feeds?</p>
			2.05.7 Remove content	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Do users have the agency to remove content they have placed on the website?</p>
2.06	COMM	Communicate	2.06.1 Send message to other user	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Are users enabled to directly send a private message to another user? This category does <i>not</i> contain public messages or a forum.</p>
			2.06.2 Place comment	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the service allow users to directly place comments?</p>
			2.06.3 Chat	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the service have chat functionality?</p>
			2.06.4 Debate/ discuss (forum)	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the website</p>

				facilitate users to engage in a debate or discussion? For example by adding a forum?
			2.06.5 Rate/ evaluate/ review	<ol style="list-style-type: none"> 1. Other users 2. Content – photo 3. Content – video 4. Content – audio 5. Content – text 6. No 7. Unclear 8. Other <p>Are users enabled to give their opinion on certain items on the website e.g. by rating content or writing reviews?</p>
2.07	OTH1	Other		Possibly, users are enabled to take up other roles than mentioned above. If so, please specify in textbox.

3. Producer roles				
3.01	CRT2	Create	3.01.1 Create content	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service present editorial content (content made by the service initiator)? This is the case if the service uploads video, news, music and other content.</p>
3.02	PBLS	Publish	3.02.1 Supply/ publish content	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear

				Does the service supply / make available content? This does not necessarily has to be editorial of nature.
			3.02.2 Inform users	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service inform users on specific topics? For example by placing news messages, or other content providing information?</p>
3.03	FAC2	Facilitate	3.03.1 Intermediary role	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service initiator play an intermediary role by connecting users to other users or organizations or vice versa?</p>
			3.03.2 Moderate	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service initiator moderate additions made by users, for example user comments on the forum or by screening videos that were uploaded by users?</p>
			3.03.3 Create channels	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the producing party create channels to group and arrange content on the website?</p>

			3.03.4 Tag content	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the producer tag the content on the website?</p>
			3.03.5 Filter content	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the producer filter content according to certain criteria? For example are they enabled to block certain content or make content available for a specific user group? Do they censor content?</p>
			3.03.6 Facilitate discussion	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the producer facilitate discussion by creating a forum or another space where users can engage in discussion with other users or organizations?</p>
			3.03.7 Facilitate networks	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the producer facilitate the formation of networks? For example by enabling users to make a public profile, add friends, find new contacts etc.?</p>
			3.03.8 Organize	<p>1. Yes 2. No 3. Maybe/ unclear</p> <p>Does the producer utilize the</p>

				service to organize meetings or events with users? Is there an agenda on the website with activities users can subscribe to?
3.04	CONS	Consult users	3.04.1 Collect information	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service consult users by asking them for information about certain subjects?</p>
			3.04.2 Decision process	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the producer involve users in the decision process? Not only by asking opinions and facilitating discussion, but also by letting users vote. It should be made clear on the website that the users are taken along in the decision process.</p>
			3.04.3 Ask for opinions	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the producer ask for the opinion of the users by letting them rate content, write reviews or directly asking them to comment?</p>
			3.04.4 Debate and discussion	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the producer enable users to get involved in debate and discussion, for example by presenting a</p>

				forum?
3.05	PROM	Promote	3.05.1 Promote product	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service promote a certain product to the users?</p>
			3.05.2 Promote idea	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service promote one specific idea to the users? For example in case of a website dedicated to activism?</p>
3.06	RATE	Rate	3.06.1 Rate	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Do the producers rate content or other items on the website?</p>
3.07	SELL	Sell	3.07.1 Sell product	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the producer enable users to purchase products through the website?</p>
			3.07.2 Sell service	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the producer enable users to purchase a certain service?</p>
3.08	OTH2	Other		Possibly, producers are enabled to take up other roles than mentioned above. If so, please specify in

				textbox.
--	--	--	--	----------

4. Financial structure			
4.01	ADVE	Advertisements	<p>1. Yes 2. No 3. Maybe/unclear</p> <p>Does the service display advertisements?</p>
4.02	FREE	Free service for users	<p>1. Yes 2. No 3. Maybe/unclear</p> <p>Is the service free of charge for users?</p>
4.03	PPUS	Pay per use	<p>1. Yes 2. No 3. Maybe/unclear</p> <p>Do users have to pay to use certain functionalities each time they utilize the service?</p>
4.04	SUBS	Subscription fee	<p>1. Yes 2. No 3. Maybe/unclear</p> <p>Do users need to subscribe to the service so they can use the functionalities?</p>

			Do they have to pay a (monthly) subscription fee?
4.05	PREM	Premium services	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Are the main service functionalities free of charge, but do users have to pay for extras (like other text colours or playing certain games)</p>
4.06	DONA	Donation	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service initiator ask for voluntary donations from the users?</p>
4.07	SALE	Sale of products	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the producer earn money by selling products on the website?</p>
4.08	SPON	Services are sponsored/ financed by third parties	<ol style="list-style-type: none"> 1. Yes, by public organization

			<p>ns/ governmen t</p> <p>2. Yes, by civil society organisations (non-profit)</p> <p>3. Yes, by other (specify in text)</p> <p>4. No</p> <p>5. Maybe/ unclear</p>
4.09	USFI	Users get financial reward for contributing	<p>1. Yes</p> <p>2. No</p> <p>3. Maybe/ unclear</p> <p>Do users get a financial reward if they contribute to a certain extent to the service? For example by uploading videos or writing reviews?</p>
4.10	OTH3	Other	<p>Possibly, services have financial arrangements other than mentioned above. If so, please specify in textbox.</p>

5. Technical architecture			
5.01	DOWN	Downloadable software	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Do users need to download software to their computers to be able to use the service?</p>
5.02	WEBB	Web based service	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Is the service useable without downloading software onto the users' computer?</p>
5.03	OSSW	Source Code available (OSS)	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Is the source code of the service available to be edited by other users (open source software)?</p>
5.04	STRE	Streaming of audio/ video content	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the website make use of streaming audio or video content? This content is not downloadable.</p>
5.05	INTC	Interconnectedness	<ol style="list-style-type: none"> 1. Yes → if yes: specify in TEXT 2. No 3. Maybe/ unclear <p>Is the service connecting with other services? For example by enabling users to make a direct link with del.icio.us, import photos from Flickr or directions from Google maps. If the answer is <u>yes</u> – specify in the text box.</p>
5.06	PEPE	Peer-to-Peer architecture	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service make use of a technical peer-</p>

			to-peer network to share content? This implicates the service does not have a central server for content.
5.07	CESE	Central server for content	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Is the content of the service centrally stored?</p>
5.08	APIA	Availability of API?	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Is the services' API available for users?</p>
5.09	WIDG	Web Widget	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Does the service employ or allows users to use widgets? (Widgets are movable mini-applications are used by consumers to craft custom experiences on their desktops, start pages, social networks, blogs and more. Widgets can be almost anything, common examples include games, stock tickers, video and audio players, quizzes, slideshows, personal productivity tools, system utilities -- almost anything you can think of can be made into a widget http://www.clearspring.com/docs/introduction/widgets-101)</p>
5.10	ACCS	Accessibility (multiple answers possible)	<ol style="list-style-type: none"> 1. Exclusive – members only 2. Exclusive – geographic location 3. Partly exclusive 4. Non- exclusive 5. Other → Specify in TEXT <p>How accessible is the service? Multiple answers possible. Indicate whether the service is Exclusive for <u>members only</u>. This means users need to log-in to gain access to the service. Sometimes, a service is only available for users in a certain <u>geographic location</u>. For example the music</p>

			<p>service Pandora is only available for users in the United State and makes this selection by checking IP address. Sometimes only a part of the service is exclusively for members. If certain functionalities are open for all Internet users; select <u>partly exclusive</u>. If the service is open to everyone, select <u>non-exclusive</u>. If other criteria are used for accessibility of the service – select other and specify in text.</p>
5.11	ACOS	Log-in with account from other service	<ol style="list-style-type: none"> 1. Yes 2. No 3. Maybe/ unclear <p>Is it possible to log-in to the service with an account from another service (for example to log-in to Writely, users need a Google account)?</p>
5.12	COCO	Control over content	<ol style="list-style-type: none"> 1. Users 2. Producer 3. Both users and producer 4. Other – specify in TEXT 5. Unclear <p>Who has control over content? Who can modify/ add/ remove content? If other parties then users or producers have control over content (for example a third party) – please specify in text. If unclear, select <u>unclear</u>.</p>

Appendix 3: User survey

Survey questions

1. Which of the devices/media mentioned below do you use in your spare time?
 - Cd player
 - Radio
 - Analogue television
 - Digital television
 - Free newspapers
 - Newspapers with a subscription
 - Free magazines
 - Magazines with a subscription
 - Game console
 - Handheld
 - Computer
 - Digital camera
 - Mobile phone without camera functionality
 - Mobile phone with camera functionality
 - MP3 player
 - MP4 player
 - Video or DVD recorder
 - HD recorder
 - DVD player
 - Laptop
 - PDA

2. How would you describe yourself concerning purchasing and using new technological gadgets? (like new computers, digital television, new MP3 players etc.)
 - Advanced. I always immediately acquire the newest technological gadgets. Mostly before anyone else does. I am very keen on trying out new stuff.
 - Fast. Usually I wait a little while before acquiring of using new gadgets until I have heard or read some more about them. But I still am very quick in acquiring new technologies.
 - Average. I wait a while before I acquire or use a new gadget until I really know something about it, for example because I have seen it being used by others.
 - Hesitant. I am a bit hesitant acquiring or using new technological gadgets. Most people already own the new stuff before I buy it. But I am certainly not the last one to buy it.
 - Behind the times. I am very hesitant about buying or using new technologies. I would rather wait as long as possible. When I acquire or use a new technology, probably everybody already used it.

3. How many minutes a day do you spend on the internet (on average) in your spare time?

4. How would you classify your computer skills?
 - Very well. My technical skills concerning computers are high. I can handle most software well and can find my way on the internet easily. If something doesn't exist yet, I can program it myself.
 - Good. I can find my way on the internet and I have mastered the most important software (for example word processing programmes, spreadsheets and image editing

programmes like photoshop). I practically never come across problems that I can't fix myself.

- Average. I can find my way on the internet and I master the most necessary software like word processing programmes (e.g. Word). Sometimes I still need help because I don't know certain programmes well enough.
- Novice. I know how to start up a computer and sometime I visit the internet. I know the rudiments of some software, for example Word, but I am not yet at home with the majority of computer programmes. I need a lot of help.
- Minimal. I can start a computer, but that is all. I don't know very well how the internet works. I almost always need help with the computer.

5. Do you do the things mentioned below (yes/no)

- Watching television on your mobile phone
- Checking websites or e-mail on your television
- Using the internet on your mobile phone
- Watching television programmes on your computer
- Making a phone call on your computer (for example using Skype)
- Ordering a film on digital television

6. Indicate if and how often you engage in the media activities mentioned below in your spare time WITHOUT using the internet. (never, sometimes, now and the, regularly, often, multiple times a day).

- Buy a music CD or music DVD
- Copy a CD or DVD from someone
- Watch television
- Go to the cinema
- Buy a book
- Read a book
- Go to the library to borrow a book
- Listen to the radio
- Buy a film on DVD or video
- Watch a film on DVD or video
- Look at photos
- Play games (video games or computer games without internet connection)
- Playing a board game or a party game
- Gamble (for example go to the casino)
- Meet with friends
- Look up information in the library (not on the internet)
- Listen to music (not on the radio)
- Read a newspaper
- Keep a diary
- Make a film
- Sell things to others (not via the internet)
- Read a magazine
- Look up information on teletext

7. Please indicate how often you engage in the activities mentioned below on the internet in your spare time

- Read e-mail
- Look up information (surfing)
- Look for specific content like photos, films or music
- Buy products (for example books or CDs)
- Read the news

- Subscribe to newsletters
- Read weblogs
- Read a digital book
- Look at photos
- Listen to an audio book
- Watch short films
- Watch long feature films
- Watch television shows
- Listen to music (except for internet radio or podcasts)
- Listen to internet radio
- Listen to podcasts
- Download music for free
- Download music through a paid service (for example iTunes)
- Download films for free
- Download paid films
- Download software
- Play online games for free
- Play online games with a subscription
- Play online games for money (for example poker games)
- Being active on a social network (e.g. MySpace, Facebook, Habbo Hotel)

8. Please indicate how often you engage in the activities mentioned below on the internet in your spare time

- Write a weblog
- Record a podcast
- Make and upload a (short) film on the internet
- Make a game
- Make a website
- Edit photos, film or music online
- Change the information on your personal page on a social network (e.g. Facebook or MySpace)
- Sell things (e.g. through eBay)
- Write a news message
- Write a newsletter
- Add information to a website (e.g. Wikipedia or Amazon)
- Vote (e.g. for your favourite movie)
- Upload music
- Upload films
- Send someone an e-mail
- Software programming
- Personalize a certain service (NOT a social networking site) for example by adjusting the home page, colors or photos
- Mix existing content (e.g. films or music) with own content

9. Please indicate how often you engage in the activities mentioned below on the internet in your spare time

- Recommend certain content (e.g. music or films) to other users (for example by voting for it)
- Send certain content files (e.g. music or films) to other users over the internet through a service
- Send content to other users via e-mail

- Tag content (add keywords)
 - Geotag content (add information about location, for example to films or photos)
 - Make an online channel to gather films on a specific theme
 - Subscribe to an RSS feed
 - Manage a website where information about one specific theme is brought together
 - Make use of services like del.icio.us or Digg to recommend information to others
 - Offer content (e.g. links to other websites) on a weblog or specialized website
 - Rate a product (for example by awarding a number of stars)
 - Rate content like video, music or photos(for example by awarding a number of stars)
10. Please indicate how often you engage in the activities mentioned below on the internet in your spare time
- Send a message to a service (for example with a complaint or suggestion)
 - Comment on a news message (in text)
 - Comment on a video or photo (in text)
 - Comment on something (e.g. a news message or a video made by other users) by making a video
 - Send an e-mail message to other internet users
 - Send a private message to another user through a certain service (for example MySpace or Flickr)
 - Place a (public) message on a social networking site for a certain user (for example a message on MySpace)
 - Chat
 - React to a weblog
 - Discuss on a forum
 - Write an online review about a product
11. Other internet use in my spare time concerning media and entertainment:
12. Do you ever click on internet advertisements (for example banners)?
13. Do you ever buy media products online? (for example books, music or film)
14. Do you ever pay for an internet service? (do not include the internet subscription you pay to your service provider. Think for example about an account you might have with a news service or games service)
15. Have you ever been paid for adding content to the internet (for example news messages, photos or video)?
16. Do you ever use Open Source Software like Linux or Firefox?
17. Do you ever use P2P (peer-to-peer), for example to exchange music and films? (e.g. Bittorrent or KaZaa)
18. Do you agree or disagree with the statements below?
- I roughly know what the internet has to offer
 - On the internet, I am not just a consumer. I actively contribute to produce, distribute and facilitate content (like music, films and photos)
 - I think it is easy to make/create and upload things on the internet
 - I think content (e.g. photos, films and weblogs) made by users is just as good as professionally created content

- Because of the internet I am dividing the time I spend on media differently
- I think the internet replaces traditional media products like newspapers, books, music and films
- Because of the internet I have much more contact with people who share my interests
- On the internet I find it difficult to judge whether information is right or wrong
- I think the internet is a supplement to traditional media products like newspapers, books, music and films
- On the internet , it is easier for me to contact businesses and organisations
- Because of the internet I believe we do not need traditional media companies (like newspapers, television and radio stations) anymore
- Users creating things themselves and illegally sharing music, films and games, will make existing media companies bankrupt

19. Gender (male/female)

20. Age

21. Nationality

22. What is your highest education?

- Primary school
- High school
- College bachelor
- College master
- Other (please specify)

23. What is your occupation?

Appendix 4: Habbo survey (Dutch)

ALG (ALGemeen)

1. Hoe ben je ooit bij Habbo Hotel terecht gekomen?
 - Ik zat al op de Engelse site
 - Via de advertenties in Hitkrant en CosmoGIRL
 - Via klasgenootjes
 - Via vrienden
 - Via berichten in de krant of tijdschriften
 - Weet niet meer
2. Hoe lang ben je al Habbo?
 - Minder dan 3 maanden
 - Tussen 3 maanden en een half jaar
 - Tussen een half jaar en een jaar
 - Meer dan een jaar
3. Ben je HC member? ja/nee
4. Hoeveel Habbo karakters heb je?
5. Hoeveel kamers heb je in Habbo Hotel?
6. Hoeveel meubi heb je ongeveer (aantal)?
7. Naast Habbo Hotel gebruik ik het internet voor (meerdere antwoorden mogelijk):
 - e-mailen
 - chatten
 - muziek downloaden
 - films downloaden
 - online gamen
 - nieuws opzoeken
 - mijn eigen weblog bijhouden
 - weblogs lezen
 - zelfgemaakte filmpjes delen met anderen
 - filmpjes kijken
 - mijn eigen website bijhouden
 - anders, nl...
8. Wat is je favoriete website (behalve Habbo Hotel)
<http://www.>

FI (Financieel)

8. Hoeveel geld geef je per maand uit aan Habbo Hotel?
 - Geen idee
 - Niks
 - Tussen de 1 - 4 euro
 - Tussen de 4 - 8 euro
 - Meer dan 8 euro
9. Waar geef je geld aan uit op Habbo Hotel (meerdere antwoorden mogelijk) (Niet stellen als de vorige vraag NIKS als antwoord heeft, of nog een antwoordcategorie erbij verzinnen)
 - Meubi
 - HC membership
 - Huisdier
 - Zeldzaams
 - Gamen
 - Anders

VP (Value Proposition)

Habbo persoonlijkheid

10. Verander je vaak het uiterlijk van je Habbo? ja/nee
(optie) Zo ja, hoe vaak dan?
11. Lijk je op je Habbo? ja/nee
12. Vind je dat je genoeg keuze hebt om je Habbo karakter te veranderen? ja/nee
13. Verander je vaak je kamer? ja/nee
14. Hoe kom je aan nieuwe meubi? (meerdere antwoorden mogelijk)
 - Ik heb geen meubi
 - Die koop ik
 - Die krijg ik
 - Die ruil ik voor andere meubi
 - Die verdien ik door dingen voor andere Habbo's te doen

Habbo vriendschappen

15. Hoeveel vrienden heb je ongeveer op Habbo Hotel?
16. De meeste Habbo's die in mijn vriendenlijst staan:
 - Kende ik al in het echt (van school of andere activiteiten (niet op de computer))
 - Kende ik van andere online activiteiten, online gaming, chatten, forums
 - Kende ik nog niet voordat ik Habbo werd

Habbo tijdsbesteding/ activiteiten

17. Hoeveel tijd besteed je aan Habbo Hotel per week?
 - Minder dan een half uur
 - Tussen een half uur en een uur
 - Tussen de een en drie uur
 - Meer dan drie uur per week
18. Waar breng je de meeste tijd online door?
 - In mijn eigen kamer
 - In de kamers van andere Habbo's
 - In de verschillende openbare ruimtes (voorbeelden)
19. Hoe breng je de meeste tijd in Habbo Hotel door?
 - Nieuwe vrienden maken
 - Chatten
 - Berichten sturen naar andere Habbo's
 - Kamer inrichten
 - Gamen
 - Met activiteiten meedoen
 - Zelf activiteiten en spelletjes bedenken
20. Waar chat je het vaakst over met andere Habbos als je op Habbo Hotel bent:
 - meubi
 - andere Habbo's
 - dingen die ik die dag heb gedaan
 - school
 - dingen die in Habbo Hotel gebeuren
 - anders, nl...

Habbo waarden

21. Wat vind je belangrijk in Habbo Hotel (meerdere antwoorden mogelijk)
(Schaal: heel belangrijk-belangrijk-maakt me niets uit-niet belangrijk-totaal niet belangrijk)
 - Veel meubi hebben
 - Veel vrienden hebben
 - Chatten met vrienden
 - Andere mensen ontmoeten
 - Gamen
 - Mijn kamer inrichten

- Andere kamers van Habbos bekijken
- Aan activiteiten meedoen
- Zelf activiteiten bedenken

22. Stellingen: (naast deze twee uitersten ook een categorie weet niet)

- Ik vind het niet belangrijk dat mijn Habbo op mijzelf lijkt – ik vind het heel belangrijk dat mijn Habbo op mijzelf lijkt
- Ik verander vaak de inrichting van mijn Habbo kamer - Ik verander niet zo vaak mijn Habbo kamer
- Habbo Hotel is een goede manier om nieuwe vrienden te leren kennen – in Habbo Hotel leer ik geen nieuwe vrienden kennen
- Ik chat vaak met dezelfde mensen als ik online ben - Ik chat elke keer met andere habbo's als ik online ben
- Ik leer de andere habbo's niet echt goed kennen – Ik leer de andere Habbo's heel goed kennen
- Ik wissel wel eens telefoonnummers uit met andere habbo's – Ik wissel nooit telefoonnummers uit met andere Habbo's
- Ik spreek de mensen die ik heb leren kennen via Habbo Hotel alleen daar - Ik spreek de mensen die ik heb leren kennen via Habbo Hotel ook wel eens ergens anders (bijvoorbeeld telefoon/ e-mail/ msn)
- Ik weet geen een van de echte namen van de Habbo's in mijn vriendenlijst - Ik weet de echte naam van sommige Habbo's in mijn vriendenlijst
- Ik leer meer nieuwe mensen kennen in Habbo Hotel dan ergens anders op internet – Ik leer op andere plekken op internet meer mensen kennen dan op Habbo Hotel
- De Habbo's in mijn vriendenlijst zie ik niet als mijn echte vrienden - De Habbo's in mijn vriendenlijst zie ik als mijn echte vrienden
- In het Habbo Hotel is het vooral belangrijk dat je veel meubi hebt, anders tel je niet mee – Het hebben van meubi is in Habbo Hotel niet belangrijk
- Habbo Hotel draait voor mij voornamelijk om chatten met anderen – In Habbo Hotel doe ik vaak andere dingen dan chatten
- Habbo Hotel draait voor mij voornamelijk om gamen met anderen – Ik speel bijna nooit games op Habbo Hotel
- Er worden weinig leuke dingen georganiseerd op Habbo Hotel - In Habbo Hotel worden veel leuke dingen georganiseerd

VN (Value Network)

23. Heb je wel eens iets creatiefs gedaan voor Habbo Hotel? (meerdere antwoorden mogelijk)

- Nee nooit
- Ik heb wel eens een Habbo alteration gemaakt
- Ik heb wel eens een gedicht ingestuurd
- Ik heb wel eens een verhaal ingestuurd
- Ik heb wel eens een bericht naar Habbo Hotel gestuurd
- Ik heb wel eens een activiteit georganiseerd
- Anders, nl...

24. Doe je wel eens aan activiteiten mee op Habbo Hotel? Ja/nee

25. Als je aan activiteiten meedoet zijn dat het vaakst:

- Activiteiten georganiseerd door Habbo Hotel
- Activiteiten georganiseerd door andere Habbo's
- Activiteiten georganiseerd door mezelf

26. Heb je wel eens een baantje gehad op Habbo Hotel? Ja/ nee

27. Zo ja, wat heb je gedaan

28. Heb je wel eens contact met de organisatie van Habbo Hotel? (meerdere antwoorden mogelijk)

- Nee nooit
- Ja ik schrijf wel eens een e-mail

- Ja ik heb ze wel eens gebeld
- Ik heb wel eens op de nieuwsbrief gereageerd

29. Vind je dat er naar Habbos geluisterd wordt door de organisatie van Habbo Hotel? Ja/nee

30. Stellingen: (Naast de twee uitersten ook een categorie 'weet niet')

- a. In Habbo Hotel organiseren de Habbos heel veel leuke activiteiten – Er worden door Habbo's heel weinig dingen zelf georganiseerd
- b. Habbos zijn heel creatief – Habbo's zijn niet creatief
- c. In Habbo Hotel kan ik doen wat ik wil – In Habbo Hotel kan ik niet zelf weten wat ik doe
- d. Ik heb te weinig keuzemogelijkheden in Habbo Hotel – Ik kan heel veel dingen kiezen om te doen in Habbo Hotel
- e. Het Habbo Hotel management is streng – Habbo Hotel laat iedereen vrij om te doen wat hij of zij wil

31. Jongen/ meisje

32. Leeftijd

Vervolg

33. Zou je mee willen doen aan een vervolgonderzoek over Habbo Hotel? Zo ja, vul dan je e-mailadres in.

Summary: The extended media consumer

Since 1980, the media landscape is being transformed by the adoption and use of new media technologies, by digitization, technological convergence, mobile devices and the development of web 2.0 services and social media. Especially in the Western world, we now have unprecedented access to media content, on any device, anywhere and at any time. We have entered an age of screens, an age of abundance and an age of interactivity and participation. Instead of consuming content, everyday internet users have the tools to become active participants themselves. By creating, uploading and sharing user-created content, amateurs are pushing the boundaries of traditional consumer/producer relations. Online all consumers have become producers of content.

Or have they?

In the history of media, all introductions of 'new' media are accompanied by both utopian and dystopian discourse on the impact they will have on our society. Also the introduction of the internet is still leading to debates on its influence on our identities, social relations, privacy, security, and mental wellbeing. But, if we want to be able to assess the implications of these developments with care and common sense, it is important to put current developments into perspective, uncover the behaviour of people and see to what extent their activities differ from previous ones. **This dissertation explores the ways in which user roles and traditional consumer/producer relations in the media sector have changed since the adoption and deployment of computers and the internet.** The objectives of this dissertation are twofold. Firstly, this research will contribute to the conceptualisation of user roles. Secondly, it will provide insight into user/producer relations in online media services compared to traditional consumer/producer relations. This study is primarily exploratory in nature and both empirical and descriptive in character. Both quantitative (content analysis and user survey) and qualitative methods (interviews and focus/discussion groups) are used to collect empirical data.

Context and concepts

In chapter two, this dissertation provides a historical contextualization of this shift in five media domains; (1) music, (2) photo, film and video, (3) broadcasting, (4) the press and (5) games & social networking services. This chapter shows that since the 1980s, influenced by the developments in information and communication technologies and the characteristics of these new media, the media landscape has changed significantly. The computer and the internet have entered the domestic sphere. Increasingly, the audience are using the internet to find and consume media content, and eventually to participate in the value creation process. Although the value chain was a suitable metaphor to describe the rather static

structure of the traditional mass media industry, the data presented in this chapter show that the new media landscape has become more diverse and developed many specialities, has disintermediated while the audience has fragmented, changing traditional consumer/producer relations in the process.

In the third chapter of this dissertation, the discussion on changing user roles is embedded in a broader conceptual framework on the audience and consumers/users. Until the 1980s, the conceptualization of media users was limited. Approaches in both audience studies and technology studies placed users in a rather passive role. The users were the audience for media messages or end-users or consumers of technological artefacts. They were thought to hold a position at the end of the value chain, unable to perform other roles besides consuming media content or media technologies. From the 1980s on, interestingly around the time that computers (enabling participation) and the internet (enabling interaction) were gaining ground in the domestic sphere, several approaches have been developed to analyse the more complex and interactive relationship people have with media. Conceptual approaches such as the Social Construction of Technology approach or the Domestication approach, find a greater balance between users and producers than deterministic theories do. They study the role users have in the design or use of technologies. Users in audience studies after the 1980s are active in the sense that they use media as a resource and select and interpret media messages in their own way.

More recent studies also analyse the convergence between user and producer roles. Users can play other roles besides consumption; mostly these studies present users as producing content. Furthermore, researchers classify users into user typologies and use these to clarify behaviour, analyse motivations or present recommendations. Also, researchers place the activities of users in perspective, for example by pointing at the inequality of participation (such as in the 90-9-1 rule). Building upon these active user approaches, a broader classification of user roles and sub-roles is proposed in this chapter. The main assumption is that users can engage in numerous activities in different services. To be able to analyse the more complex relationship between users and producers, the concept of the business model is introduced to provide an instrument with which user/producer relations can be analysed. The levels on which users and producers can interact are: (1) the functional or technical architecture, (2) the value chain or network, (3) the financial model and (4) the value proposition.

Exploration of user roles and user/producer relations

After the historical/contextual chapter and the presentation of a conceptual framework for this dissertation, three empirical studies will explore the ways in which user roles and traditional consumer/producer relations in the media sector have changed since the adoption and deployment of computers and the internet.

Chapter four provides an analysis and classification of user and producer roles and financial and technical arrangements in current online media services. The analysis is based on a systematic content analysis of 125 online media services and shows that consumption is still a very important user role. It is, in a sense, a precondition for all the other roles. But also many online media services enable users to assume other roles besides consuming media content and communicating about it. Users are enabled to become prosumers by engaging in user-created content, taking part in crowdsourcing or directly helping producers by participating in co-creation projects. A difference with analogue media services is that content creation in online media services is often initiated by the users themselves. The most important roles for media producers online are facilitating the process of content creation, helping users to find the content they want, storing content for users and providing them with a platform to form networks. On a technical level, technological features of the media services in the case sample provide users easy access. The interface of most services is simple and services enable all users to connect with one another, thus creating a social web. But only few media services provide true technical openness, for example by means of open source software or peer-to-peer file-sharing. Lastly, the financial analysis shows that media producers in their online services still mostly rely on traditional revenue models such as advertising, or selling subscriptions, access to content or products like books. But the online domain also enables other revenue models, for example small-scale donations, micropayments or premium content. And since the services heavily rely on user-created content, some even reward their users for participation.

Because the analysis of web services only justifies statements about *possible* user roles, further attention is paid to *actual* user roles in chapter five. The results of a user survey show that, online, every user is most of all a consumer and that consumption can be divided into many sub-roles. Thus, the fact that consumers are enabled to take on other roles online can be seen as a complementary development rather than a complete turnaround. Based on the analysis, it is safe to say that computers and the internet have indeed lowered the threshold for a very large group of users to assume a variety of roles in the media domain. And instead of only focusing on the user as consumer or producer, the active-user concept can be broadened to include all kinds of (everyday) activities. The central outcome of this dissertation is thus that users are *extended consumers*. They are enabled to take on many more or less active user roles; consuming, creating/customizing, contributing, sharing, facilitating, and communicating. The analysis in this chapter also shows that users generally have a tendency towards accepting 'less active' user roles. Customization is more often done than creation and sending e-mail is more easily done than taking part in forum discussions. The research results indicate that differences in internet use seem to be much more dependent on generational than on gender differences. The so-called Net-generation, or the digital natives (Prensky, 2001) are behaving differently than older users. They (on average) tend to be online longer each day and engage in more and newer activities than users in

older age groups. The research results in this chapter also indicate that users who engage in some offline activity also tend to engage in that same activity online. Many traditional media activities, like reading the news, watching television and movies, listening to the radio and reading a book, are equally possible online.

To get a more in-depth view on changing user roles and shifting user/producer relations, quantitative empirical data is supplemented in chapter six by a more qualitative view through a case study of Habbo, an online virtual world where teenagers can interact and play games. Data gathered in desk research, interviews with the Habbo management, a user survey and online discussion groups are used to explore in more detail how one of the youngest groups of internet users are active within a virtual world. Like no other user group, they embody active internet use. The outcomes are in line with the other two empirical chapters in this dissertation. In a way that is similar to many web 2.0 services, Habbo places the user at the centre of its service. The producers do not provide all the content themselves, but enable the users to do so. They need to strike a balance between giving users complete freedom and maintaining some form of control over the activities of their users. Furthermore, as was also the outcome of the user survey in chapter five, the activities that require less effort are generally more popular among Habbos than more specialized, more creative activities. It seems that, even in the youngest group of internet users, creating original content is reserved for a smaller subgroup of the users.

One of the most important conclusions of this dissertation is that consumption roles are still very important in online media services, but they can be conceptualized as *extended*: users take on multiple other roles besides consumption, and these roles can be divided into many sub-roles. Secondly, important insights from the empirical studies are that user/producer relations are dynamic and take place on various levels. Whereas producers primarily fulfil facilitating roles, users assume important roles in the production of value. The interaction between users and producers can be characterized as a process of mutual shaping, but, as opposed to conceptualizations in social construction of technology studies, the process of closure is not final. Because of this increased interaction between users and producers and the fact that producers have access to a large amount of user data, online media services are always open to change.

In conclusion, this dissertation has explored the pioneering activities of internet users just after the coining of the web 2.0 concept. It has generated new insights into the activities and roles users perform in online media services. It has provided additional knowledge to complement existing research. It has shown that possible user activities have extended and diversified online, but also that not all users want to become prosumers or co-creators, and consumption is still one of the main activities of internet users. This dissertation sheds light on the various levels on which users and producers interact and the way these interaction

possibilities are extended compared to analogue media services. But we are still only at the beginning of a truly connected age. Discussions about the impact of new developments in media and our dependence on technologies will go on. And continuously extending our knowledge of user activities, motivations and the ways in which new media technologies and everyday life affect one another is crucial if we want to be able to assess the implications of these developments with care and common sense.

Samenvatting: De veelzijdige mediaconsument

Sinds 1980 is het medialandschap getransformeerd onder invloed van adoptie en gebruik van nieuwe mediatechnologie, digitalisering, technologische convergentie, mobiele apparaten en de ontwikkeling van web 2.0 diensten en sociale media. Vooral in het Westen hebben we ongeëvenaarde toegang tot mediacontent, op elk apparaat, overal en altijd. We bevinden ons in een tijdperk van schermen, een tijdperk van overvloed en een tijdperk van interactiviteit en participatie. In plaats van het enkel consumeren van content hebben gebruikers het gereedschap in handen om zelf actieve participanten te worden. Door het creëren, uploaden en delen van user-created content verleggen amateurs de grenzen van traditionele consument/producent relaties. Online is elke consument een producent van content.

Of niet?

Kijken we naar de mediageschiedenis, dan gaat elke introductie van 'nieuwe' technologie gepaard met zowel utopische als dystopische verhalen over de impact die deze technologie zal hebben op onze samenleving. Ook de introductie van het internet leidt, nog steeds, tot debatten over de invloed die dit medium heeft op onze identiteit, sociale relaties, privacy, veiligheid en mentaal welzijn. Maar als we deze impact op een zorgvuldige manier willen beoordelen is het belangrijk de ontwikkelingen in perspectief te plaatsen, het gedrag van mensen te bestuderen en te analyseren in hoeverre hun nieuwe activiteiten verschillen van de voorgaande. **Dit proefschrift exploreert de manieren waarop rollen van gebruikers en traditionele consument/producent relaties in de mediasector zijn veranderd sinds de adoptie en implementatie van computers en het internet.** De doelstellingen van dit proefschrift zijn tweevoudig. Ten eerste draagt dit onderzoek bij aan de conceptualisering van gebruikersrollen. Ten tweede verschaft het inzicht in gebruiker/producent relaties in online media diensten in vergelijking met traditionele consument/producent relaties. Deze studie is voornamelijk exploratief en zowel empirisch als descriptief in karakter. Zowel kwantitatieve (inhoudsanalyse en gebruikersenquête) als kwalitatieve (interviews en focus/discussiegroepen) zijn gebruikt om empirische data te verzamelen.

Context en concepten

In hoofdstuk twee biedt dit proefschrift een historische contextualisatie van de verandering in vijf mediadomeinen: (1) muziek, (2) foto, film en video, (3) omroep, (4) pers en (5) games en sociale netwerken. Dit hoofdstuk laat zien dat sinds de jaren tachtig, beïnvloed door de veranderingen in informatie en communicatietechnologieën en de karakteristieken van deze nieuwe media, het medialandschap significant is veranderd. De computer en het internet deden zijn intrede in huiselijke kring. In toenemende mate ging het publiek het internet

gebruiken om content te vinden en te consumeren, en uiteindelijk om deel te nemen aan het waardecreatieproces. Waar de waardeketen een passende metafoor was om de statische structuur van de traditionele massamedia te beschrijven, laten de data in dit hoofdstuk zien, dat het nieuwe medialandschap diversificeerde en specialiseerde, disintermedieerde en dat het publiek fragmenteerde, waarbij traditionele consument/producentrelaties veranderden.

In het derde hoofdstuk van dit proefschrift wordt de discussie over veranderende rollen van gebruikers ingebed in een breder conceptueel raamwerk rond het publiek en consumenten/gebruikers. Tot de jaren tachtig was de conceptualisering van mediagebruikers nog beperkt. Benaderingen in zowel publieksstudies als technologiestudies plaatsten gebruikers in een vrij passieve rol; ze werden verondersteld pas aan het einde van de waardeketen in actie te komen, en werden onbekwaam geacht om een andere rol aan te nemen dan publiek van mediacontent of consument van mediatechnologie. Vanaf de jaren tachtig, rond de tijd dat computers (waardoor participatie mogelijk werd) en het internet (waardoor interactie mogelijk werd) voet aan de grond kregen in huishoudens, probeerden verschillende academici de meer complexe en interactieve relatie van mensen met media in meer detail te analyseren. Conceptuele benaderingen zoals Sociale Constructie van Technologie of Domesticatie vinden meer balans in het analyseren van rollen van gebruikers en producenten dan deterministische theorieën. In deze benaderingen worden de rollen van gebruikers in het ontwerpproces of als gebruiker van technologie bestudeerd. Gebruikers in publieksstudies na 1980 zijn actief in de zin dat ze media gebruiken als een bron en op hun eigen manier mediacontent selecteren en interpreteren.

Meer recente studies bekijken ook de convergentie tussen rollen van gebruikers en producenten. Wetenschappers stellen dat gebruikers ook andere rollen aannemen naast consumptie; en meestal gaat het dan over de productie van content door gebruikers. Verder classificeren onderzoekers gebruikers in gebruikerstypologieën, en gebruiken deze om gedrag te verklaren, motivaties te analyseren of aanbevelingen te doen. Ook plaatsen onderzoekers de activiteiten van gebruikers in perspectief door te wijzen op ongelijkheid van deelname (zoals in de 90-9-1 regel). Voortbouwend op deze studies naar actieve gebruikers, wordt in dit hoofdstuk een meer open indeling van rollen en subrollen van gebruikers gepresenteerd. De hoofdaanname in dit proefschrift is, dat gebruikers verschillende activiteiten kunnen ondernemen in verschillende diensten. Om de meer complexe relatie tussen gebruikers en producenten te kunnen bestuderen, wordt het businessmodellenconcept geïntroduceerd. Deze verschaft een structuur waarmee gebruiker/producent relaties kunnen worden geanalyseerd. De niveaus waarop gebruikers en producenten met elkaar kunnen interacteren zijn: (1) de functionele of technische architectuur van een dienst, (2) de waardeketen of het waardenetwerk, (3) het financiële model en (4) de waardepropositie.

Exploratie van rollen van gebruikers en gebruiker/producent relaties

Na het historische contexthoofdstuk en het conceptuele raamwerk van deze dissertatie, worden in drie empirische hoofdstukken de veranderende rollen van gebruikers en consument/producent relaties in de mediasector verkend.

Hoofdstuk vier geeft een analyse en classificatie van rollen van gebruikers en producenten en financiële en technische arrangementen in huidige online mediadiensten. De analyse is gebaseerd op een systematische inhoudsanalyse van 125 online mediadiensten en laat zien dat consumptie nog steeds een belangrijke gebruikersrol is. Het is, in zekere zin, een voorwaarde voor alle andere rollen die gebruikers kunnen aannemen. Maar veel mediadiensten laten gebruikers ook andere rollen aannemen; gebruikers kunnen prosumers worden door user-created content op internet te zetten, rollen in crowdsourcing aannemen, of direct producenten helpen door deel te nemen in co-creatie projecten. Een verschil met analoge mediadiensten is dat de gebruikers vaak degenen zijn die de content genereren. De belangrijkste rollen van mediaproductenten online zijn het faciliteren van het proces van contentproductie, het helpen van gebruikers de juiste content te vinden, content opslaan voor gebruikers en hen een platform bieden om netwerken te vormen. Op technisch vlak bieden veel mediadiensten in de analyse de gebruiker laagdrempelige online toegang. De interface van veel diensten is eenvoudig en diensten maken het de gebruiker mogelijk naar andere diensten te linken en op ze voort te bouwen waardoor een sociaal web kan ontstaan. Maar alleen een kleine minderheid van de diensten biedt echte technische openheid, bijvoorbeeld in de vorm van open source software of p2p filesharing. Als laatste laat de financiële analyse zien dat mediaproductenten online nog steeds vooral geld proberen te verdienen met traditionele verdienmodellen zoals het plaatsen van advertenties, het verkopen van abonnementen, toegang tot content of producten zoals boeken. Maar het online domein maakt ook andere verdienmodellen mogelijk, zoals kleinschalige donaties, microbetalingen of premium content. En omdat diensten voornamelijk draaien op user-created content, belonen sommige diensten hun gebruikers ook voor participatie.

Omdat de analyse van online mediadiensten het alleen toestaat uitspraken te doen over *mogelijke* rollen van gebruikers, worden *daadwerkelijke* rollen van gebruikers verder verkend in hoofdstuk vijf. De resultaten van een enquête onder gebruikers laten zien dat online elke gebruiker boven alles een consument is, en dat deze consumptie activiteit onder te verdelen is in meerdere subrollen. Dus, het feit dat consumenten online andere rollen aannemen kan worden gezien als een complementaire ontwikkeling in plaats van een complete ommeslag. Gebaseerd op de analyse kan gesteld worden dat computers en het internet inderdaad de drempel hebben verlaagd voor een grote groep gebruikers om een variatie aan rollen in te nemen in het medialandschap. En in plaats van een enkelvoudige focus op de gebruiker als producent van content, kan het concept van de actieve gebruiker worden verbreed naar een gebruiker die een waaier aan (alledaagse) activiteiten ontplooit. De centrale uitkomst van dit

proefschrift is dat gebruikers *veelzijdige mediaconsumenten* zijn. Zij zijn in staat om een grote hoeveelheid meer of minder actieve rollen op zich te nemen; consumeren, creëren/customizen, delen, faciliteren, en communiceren. De analyse in dit hoofdstuk laat ook zien dat gebruikers gemiddeld meer neigen naar 'minder actieve' rollen. Aanpassen wordt vaker gedaan dan creëren, en het versturen van e-mail vaker dan discussiëren op een forum. De onderzoeksresultaten tonen dat verschillen in internetgebruik duidelijker naar voren komen tussen verschillende leeftijdsgroepen dan tussen mannen en vrouwen. De zogenaamde Net-generatie, of de *digital natives* (Prensky, 2001) gedragen zich anders dan oudere gebruikers. Ze zijn per dag gemiddeld langer online en zijn actiever in meer en nieuwere activiteiten dan gebruikers in oudere leeftijdsgroepen. De onderzoeksresultaten in dit hoofdstuk laten verder zien dat gebruikers die online een bepaalde activiteit ontplooiën, ook vaker dezelfde activiteit online oppakken. Veel traditionele media-activiteiten, zoals het lezen van nieuws, televisie en films kijken, naar de radio luisteren en een boek lezen zijn mogelijk online.

Om een meer diepgaand beeld te krijgen van veranderende rollen van gebruikers en gebruiker/producent relaties, wordt de kwantitatieve empirische data uit hoofdstuk vier en vijf aangevuld met een meer kwalitatieve analyse in hoofdstuk zes. Het hoofdstuk geeft een analyse van een case, de online virtuele wereld van Habbo, waar tieners rondlopen, communiceren en games spelen. Data verzameld in deskresearch, interviews met het Habbo management, een gebruikersenquête en online discussiegroepen schetsen een meer gedetailleerd beeld van de activiteiten van de jongste groep gebruikers in een virtuele wereld. Als geen andere groep gebruikers zijn zij ongekend actief online. De uitkomsten van dit hoofdstuk zijn in lijn met de andere twee empirische hoofdstukken in dit proefschrift. Vergelijkbaar met veel web 2.0 diensten plaatst Habbo de gebruikers in het middelpunt van de dienst. De producenten creëren niet alle content zelf, maar geven gebruikers de mogelijkheid dit zelf te doen. Ze proberen daarbij een balans te vinden tussen het bieden van complete vrijheid en het behouden van een zekere vorm van controle over de activiteiten van gebruikers. Een andere uitkomst, vergelijkbaar met een van de resultaten van de gebruikersenquête in hoofdstuk vijf, is dat de activiteiten die de minste inspanning vragen vaak populairder zijn dan meer gespecialiseerde en creatieve activiteiten. Het lijkt erop dat, zelfs binnen de jongste groep gebruikers, het creëren van originele content alleen gedaan wordt door een klein deel van de gebruikers.

Een van de belangrijkste conclusies van dit proefschrift is dat consumptie nog steeds heel belangrijk is in online mediadiensten, en dat gebruikers geconceptualiseerd kunnen worden als *veelzijdig*: zij nemen verschillende andere rollen aan naast consumptie en deze rollen kunnen worden uitgesplitst in een waaier aan subrollen. Ten tweede is een belangrijk inzicht uit de empirische studies dat gebruiker/producentrelaties dynamisch zijn en op verschillende niveaus plaatsvinden. Waar producenten voornamelijk faciliterende rollen vervullen, nemen

gebruikers een belangrijke rol in in het creëren van waarde. De interactie tussen gebruikers en producenten kan gekarakteriseerd worden als een proces van wederzijdse beïnvloeding, maar, in tegenstelling tot conceptualiseringen in de Sociale Constructie van Technologie benadering, is het proces van *closure* (afsluiting) niet statisch. Vanwege toegenomen interactie tussen gebruikers en producenten en het feit dat producenten de toegang hebben tot een grote hoeveelheid gebruikersdata, staan online mediadiensten altijd open voor verandering.

Concluderend; deze dissertatie heeft de pionierende activiteiten van gebruikers in kaart gebracht vlak na de popularisering van het web 2.0 concept. Deze studie heeft nieuwe inzichten gebracht in de activiteiten en rollen van gebruikers in online mediadiensten en heeft kennis opgeleverd om bestaand onderzoek aan te vullen. Daarnaast is getoond dat mogelijke gebruikersrollen online wellicht veelzijdiger zijn geworden, maar dat niet alle gebruikers producent of co-creator van content willen worden: consumptie is nog steeds een van de meest belangrijke activiteiten van internetgebruikers. Deze dissertatie exploreert verder verschillende niveaus waarop gebruikers en producenten in online mediadiensten met elkaar omgaan en de manieren waarop de interactiemogelijkheden tussen hen zijn uitgebreid vergeleken met analoge mediadiensten. Maar we staan nog steeds aan het begin van een werkelijk verbonden tijdperk. Discussies over de impact van nieuwe ontwikkelingen in het mediadomein en onze afhankelijkheid van technologieën zullen ook in de komende jaren nog worden gevoerd. En het constant uitbreiden van onze kennis over activiteiten van gebruikers, motivaties en de manieren waarop nieuwe media technologieën en het alledaagse leven elkaar beïnvloeden is cruciaal als we de implicaties van deze ontwikkelingen met zorg en *common sense* willen evalueren.

mijke slot



About the author

Mijke Slot (1979) is lecturer at the Erasmus School of History, Culture and Communication of Erasmus University Rotterdam where she teaches *Communication technologies and impacts*, *Participating audiences* and *Social media*. Mijke combines her teaching with research at the Erasmus Research Centre for Media, Communication and Culture. Currently she expands her dissertation research by focusing on the creativity of teenagers online. Previously, Mijke worked at research institute TNO, where she conducted research on (amongst others) changes in journalism practices, news consumption, the future of the press agencies in the Netherlands and serious games. She advised a wide variety of clients, such as the Ministry of Education, Culture and Science, the Ministry of Internal Affairs, the European Commission and the Dutch Press Fund, and was the secretary for the *Tijdelijke Commissie Innovatie en Toekomst Pers* (Temporary Committee Innovation and Future of the Press). During her dissertation research, Mijke was employed by the Faculty of Philosophy at Erasmus University Rotterdam and TNO in Delft. She started her dissertation research under the wings of the Freeband B@Home project.