

# Strategy of Digital Citizenship for a Society of Information and Knowledge



## Final Document<sup>1</sup>

Strategy of Digital Citizenship for a Society of Information and Knowledge.

---

<sup>1</sup>

The construction of digital citizenship is constantly changing. Therefore, the approach framework defined in this document requires not only a specific and interdisciplinary interpretation per segment and social context, but also a regular revision on the concept agreements defined in the document itself.

## Content

INTRODUCTION	4
STRATEGY OF DIGITAL CITIZENSHIP	6
1. Transverse Perspectives of Approach for Latin America	6
2. Dimensions of Uses and Competences	7
2.1 Critical and Reflexive Use	7
2.2 Responsible and Safe Use	8
2.3 Creative and Participative Use	8
3. Lines of Action and Objectives	9
3.1 Governance of Digital Citizenship	9
3.2 Development of Skills	10
3.3 Investigation	10
BIBLIOGRAPHY	12
APPENDIXES.....	13

## INTRODUCTION

During the last years, the discussions about the construction of Digital Citizenship became particularly relevant. From several spheres, it is stressed that the equal development of our society implies to treat Digital Citizenship as a core element to exercise the citizenship in the 21st Century.

The classic concept of ‘citizenship’ refers to all rights and obligations under which an individual is subject to a relationship with the society he or she belongs to. The status of being a citizen provides the ability of belonging to a human and organized community, beyond legal bonds.

“Digital Citizenship” is a concept that is constantly changing. It mainly refers to our behaviours and attitudes in the digital areas including the exercise of rights and obligations.

UNESCO defines Digital Citizenship as a group of competences that enables the citizens to have access, retrieve, understand, assess, and use information with creative purposes. Likewise, it implies sharing media information and content in all formats, by using diverse tools critically, ethically, and efficiently with the aim of participating and engaging in personal, professional, and social activities.

Then, Digital Citizens should be able to exercise their rights and comply with their obligations in the digital world, in a new environment that is integrated to the social sphere as is a square or the street. The full exercise of the Digital Citizenship implies the development of competences that enable to have a critical understanding of the information received, an understanding of the social and economic impact of technology, compliance with the law, knowledge and fight for existing rights and the creation of new rights connected to the digital world.

To build citizenship in digital environments is a joint effort of a whole system that includes the State, the academy, companies, and the civil society, as well as each one of us as part of a society in which we play different roles.

Within this framework, Uruguay’s position in the region is privileged. Uruguay has a wide coverage in infrastructure of telecommunications and has a consolidated legal framework<sup>2</sup> and a policy of Open Data. Through Plan Ceibal, all kids who attend public schools have their own personal computer with Internet access and can share them with their families<sup>3</sup>. Also, the creation of Plan Ibirapitá<sup>4</sup> has fostered the digital inclusion of the service to elderly people with the aim of enhancing social inclusion, participation, and equity. Different plans have been carried out for people to have access to basic skills of digital literacy and programme created to make available online bureaucratic proceedings and services provided by the State, among other progresses in the area of Digital Government renowned globally.

---

<sup>2</sup> UAIP: <https://www.gub.uy/unidad-acceso-informacion-publica/>; URCDP: <https://www.gub.uy/unidad-reguladora-control-datos-personales/> CERTuy: <https://www.gub.uy/centro-nacional-respuesta-incidentes-seguridad-informatica/>

<sup>3</sup> <https://www.ceibal.edu.uy/es/articulo/ceibal-en-cifras>

<sup>4</sup> <https://ibirapita.org.uy/>

All these achievements emerged within a sustained digital policy, reflected in the consecutive digital agendas the country has been carrying out since 2008 to date<sup>5</sup>. This tool is based on a vocation of consistent analysis and monitoring, with quality national statistics for its assessment<sup>6</sup>.

These actions are contributing to the reduction of inequality and gaps of access within the population of higher and lower incomes, and to the democratization of the services, towards building digital development in a characteristic hallmark of Uruguay within and outside borders.

On the other hand, the country has been taking the lead in the ITI ICT Development Index of the International Telecommunications Union in Latin America and the Caribbean<sup>7</sup>, turning it in a main player in the international scenario. Today, it is part of the Digital Nations, a group of the digitally advanced countries of the world, becoming the first country of Latin American in obtaining such acknowledgement<sup>8</sup>.

Uruguay has the conditions to tackle the current challenges of the Society of Information and Knowledge and to anticipate the future challenges that may arise.

Based on the acknowledgement of this national situation and international context, a joint project was developed with diverse organizations and institutions connected to the subject matter, and reference frameworks on Digital Citizenship were agreed in order to enable the creation of coordinated and aligned awareness strategies.

Within this framework, in August 2019, Agesic and UNESCO Montevideo called public and academic organizations and the organized civil society to a Digital Citizenship Working Group with the objective of creating a document with the recommendations for the design of a strategy on Digital Citizenship. Models of the following organizations and institutions were part of these meetings: Ministry of Culture and Education, Ministry of Industry, Mining and Energy, National Advisory Board, National Public Education Administration, National Institute of Human Rights, Universidad de la República, Plan Ceibal, Fundación Ceibal, Technology University of Uruguay, UNESCO Montevideo, UNICEF Uruguay, Latin American School of Social Sciences of Uruguay, Collective Thinking, Universidad Católica del Uruguay and Agesic.

Together with the drafting of this document, the cross-section perspectives and the dimensions of use contained in this strategy, were set to be validated in five subject areas (Early Childhood, Young People, Elderly People, Genre and Role of Media) within the framework of the Second Conference of Digital Citizenship.

This Strategy of Digital Citizenship for a Society of Information and Knowledge shows the first actions to carry out through an open process of construction<sup>9</sup>, sharing the production with models and interested people who took part in the Digital Citizenship

---

<sup>5</sup> <https://uruguaydigital.gub.uy/agenda-digital/agenda-2020>

<sup>6</sup> See <http://www.ine.gub.uy/encuesta-de-uso-de-la-tecnologia-de-la-informacion-y-las-comunicaciones>

<sup>7</sup> See: <https://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2017.aspx>

<sup>8</sup> See: <https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/noticias/uruguay-asumio-presidencia-del-digital-9>

<sup>9</sup> In the II Project of Digital Citizenship in 2019, the transverse perspectives, the dimensions and the skills contained in this document were discussed in five subject tables. Between June and September 2020, a public consultation was carried out on the document issued by the Digital Citizenship Working Group.

Working Group reflecting their vision and contributions. Such actions intend to kick off a process that should monitor and continuously rethink the way in which the citizens use technology, as well as the results obtained to guarantee the equal digital transformation.

## STRATEGY OF DIGITAL CITIZENSHIP

### 1. Transverse Approach Perspective for Latin America

According to the frameworks and reference studies<sup>10</sup>, as well as from the peculiarities of the reality in Latin America and in Uruguay for the creation of public policies that contribute with the development of Digital Citizenship (history, economic and social structure), the Digital Citizenship Working Group agreed on the following transverse perspectives to tackle the subject in Latin America:

**Digital Inclusion.** To have access to high quality devices and connectivity, as well as to competences and the necessary educational level to develop digital literacy skills in all citizens. It also implies to provide the proper conditions of universal accessibility<sup>11</sup> for all persons to be able to exercise digital citizenship, catering for the needs of each population (disabled persons, elderly people, etc.) considering the necessary adjustments that may correspond<sup>12</sup>

**Cultural Capital.** Attitudes, knowledge, and abilities that allow the access, the representation, and the production of diverse cultures.

**Democratic Culture.** Acknowledgement of the cultural diversity, the different points of view and opinions, appreciating and taking care of common areas and the environment, seeking inclusion and social equality.

**Participation.** Use of all available channels to intervene in the strategic

---

<sup>10</sup> See "Appendixes".

<sup>11</sup> Concept of Universal Accessibility: "Universal Accessibility refers to the group of characteristics an urban environment, building, product, service or means of communication should have to be used in conditions of comfort, safety, equality and autonomy by all people. It supposes the strategy "[Design for All](#)" and it is understood without prejudice of the [Reasonable Adjustments](#) that should be made." [Universal Accessibility and Design for All](#). Foundation ONCE. 2011).

<sup>12</sup> Concept of Reasonable Adjustment: "Adequate and necessary modifications and adaptations that do not mean an inappropriate burden, when required in a particular case, to guarantee disabled people the exercise or possession, in the same conditions as others, of all human rights and fundamental freedoms" (Convention on human rights for disabled people, United Nations - 2006).

<sup>13</sup> <https://www.un.org/es/universal-declaration-human-rights>; American convention:

[https://www.oas.org/dil/esp/tratados\\_b32\\_convencion\\_american\\_a\\_sobre\\_derechos\\_humanos.htm](https://www.oas.org/dil/esp/tratados_b32_convencion_american_a_sobre_derechos_humanos.htm); Convention on the Rights of the Child <http://www.impo.com.uy/bases/leyes-internacional/16137-1990>

<sup>14</sup> We share some links that reflect upon human rights in the digital world: [https://www.deusto.es/cs/Satellite/deusto/es/universidad-deusto/sobre-deusto-0/derechos-humanos-en-entornos-](https://www.deusto.es/cs/Satellite/deusto/es/universidad-deusto/sobre-deusto-0/derechos-humanos-en-entornos-digitales#:~:text=Toda%20persona%20tiene%20derecho%20a%20la%20protecci%C3%B3n%20de%20sus%20datos,privacidad%20de%20las%20comunicaciones%20online)

[digitales#:~:text=Toda%20persona%20tiene%20derecho%20a%20la%20protecci%C3%B3n%20de%20sus%20datos,privacidad%20de%20las%20comunicaciones%20online](https://www.deusto.es/cs/Satellite/deusto/es/universidad-deusto/sobre-deusto-0/derechos-humanos-en-entornos-digitales#:~:text=Toda%20persona%20tiene%20derecho%20a%20la%20protecci%C3%B3n%20de%20sus%20datos,privacidad%20de%20las%20comunicaciones%20online).

"Initiative of the section Human Rights page 39 of the book "*Jóvenes, transformación, digital y formas de inclusión en América Latina*".

<https://digital.fundacionceibal.edu.uy/jspui/handle/123456789/229>; <https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/politicas-y-gestion/derechos-ciudadania-digital>.

decisions that have an impact on people's daily life, with an emphasis on public affairs.

**Human Rights.** To respect the human rights renowned internationally, regionally, and nationally<sup>13</sup> and to consider the challenges that are a consequence of the digital environments<sup>14</sup>. Considering that the gaps in society are also reflected in the digital world, stress is made on how diverse categories of inequality work and connection with each other (from an intersectional point of view) and in the rights connected to migration, gender, disabilities, economic and educational inequality.

## 2. Dimensions of Use and Competences

It is established that the dimensions that should be considered in the approach of the construction of Digital Citizenship refer to the way in which people use ICTs. Such uses are thought to enhance citizens' life quality, boost opportunities the digital world offers and create a space of cohabitation and respect of the human rights in which all of us feel represented, included, and safe. In that sense, three dimensions are set forth: Responsible and safe use, critical and reflective use, and creative and participative use. It is worth mentioning that these dimensions do not respect a hierarchical order but are mutually fed back.

### 2.1 Critical and Reflective Use

This dimension is focused on the ability a person has to understand and assess technologies and information critically. Among other aspects, it implies:

**Analysis of Information.** To know to select, analyse, compare, and process information on the Internet. To recognize reliable information and sources and to know how to detect misinformation and fake news.

**Ability to Question Content.** To understand how technology works and the way they hierarchize, distribute, and produce content.

**Understanding the Lack of Neutrality.** To understand that subjectivity, relationships of power, biased information, political and commercial interests also exist in the digital world.

**Understanding What Algorithms Are and How They Work.** To understand how data is obtained, administered, and used as an input for the development of Artificial Intelligence<sup>15</sup> tools and the impact this technology has on our daily life.

---

15

For more information, please check the Artificial Intelligence Strategy for the Digital Government

[https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/sites/agencia-gobierno-electronico-sociedad-informacion-conocimiento/files/documentos/publicaciones/Estrategia\\_IA%20-%20versi%C3%B3n%20espa%C3%B1ol.pdf](https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/sites/agencia-gobierno-electronico-sociedad-informacion-conocimiento/files/documentos/publicaciones/Estrategia_IA%20-%20versi%C3%B3n%20espa%C3%B1ol.pdf)

***Identifying Interests Involved.*** To be aware of the value of data and of the power of several players that drive the digital world.

***Being Aware of the Digital Ecosystem.*** To know who takes part, how they connect to each other and how decisions are made in the digital world.

***Understanding Digital Gaps.*** To be able to reflect upon and evidence the way in which the Internet and technologies operate on inequality.

## 2.2 Responsible and Safe Use

It involves practices intended to generate a safe space of cohabitation of citizens in the digital world. That implies:

***Self-regulation.*** To decide the time devoted to browse in the web and to define when, how and what it is used for.

***Ethical Behaviour.*** To reflect upon the possible ways of solving each situation, being personally and socially responsible for a pacific and sustainable world, with the motivation and will of taking care of the general wellbeing.<sup>16</sup>

***Empathetic Behaviour.*** To understand how my actions have an impact on other people in the digital world.

***Knowing and Exercising Rights in the Digital World.*** To be responsible, knowing and exercising the rights for the construction of a safe digital world, and to know which are the organizations and mechanisms that protect such rights.

***Awareness of the Digital Footprint.*** To be aware of the reach and the construction of the digital footprint, both own and of others, created by trails of information about beliefs, values, skills, interest, hobbies, location, and images.

***Construction of the Digital Identity.*** To know how to manage the bundle of information published about me on the Internet that reflects my image and determines my digital reputation, meaning, the way other people see me in this world.

***Management of Privacy.*** To be able to decide, what, when, how and where to show my information and the information of others.

***Management of Risks.*** To be aware of the risky situations that may be created on the Internet and to understand how to deal with them and avoid them.

---

<sup>16</sup> Definition inspired on "Guía de Educación para la Ciudadanía Mundial elaborada por UNESCO"  
<https://unesdoc.unesco.org/ark:/48223/pf0000233876>



## 2.3 Creative and Participative Use

It refers to the competences that enable the creative use of technologies and taking advantage of them for participation. Users, recipients, and audiences may transform in creators, producers and authors. The creative and participative dimension of the digital citizenship includes:

***To Develop Content.*** To know how to create, edit and share valuable digital content, acknowledging and respecting the ecosystem of copyright and open licensing.

***To Mitigate Digital Gaps.*** To be able to work for information technology to be used to mitigate inequality.

***To be able to Innovate with ICTs.*** To know how to use digital tools and processes for innovation projects.

***To Develop Communicational Abilities.*** To be able to interact, exchange, suggest, express, and socialize in a digital environment.

***To Use ICTs for Individual, Community and Social Transformation.*** To foster the right for the participation in democracy and the commitment with the community, as well as to use digital technologies as a transformation tool.

## 3. Lines of Action and Objectives

With the purpose of making effective the previous definitions, three main lines of action are suggested with specific objectives for each one of them:

### 3.1 Governance of Digital Citizenship.

This line of action expects the construction of Digital Citizenship to have an interdisciplinary, interinstitutional, and transverse approach in the whole country. Then, the institutionalization of the Digital Citizenship Working Group is suggested as main objective. The idea is to bet on the generation of knowledge, recommendations and actions that contribute to the construction of comprehensive and coordinated public policies to promote and develop Digital Citizenship. The main objectives are:

- a. To identify the ecosystem of Digital Citizenship, meaning the organizations that are part of it, the roles and relationships that are built in Uruguay. Likewise, the idea is to consolidate<sup>17</sup> a Working Group that will have to call for in-person meetings at least once a month.

---

17

The current members of the group were called by UNESCO Montevideo and Agesic by considering their experience in the subject. Throughout this period, it was identified the need of incorporating organizations that consider points of view that are not evidenced today in the group. Therefore, this space is thought to be in constant construction and open to the incorporation of other organizations related to the subject.

- b. To provide continuity and coordination to the multiple efforts that are being made as part of the public policies on the subject, intending to align messages towards the citizenship and its positioning in the public agenda.
- c. To promote and protect the construction of Digital Citizenship.
- d. To tackle Digital Citizenship from different perspectives, reflecting upon it from a holistic point of view.
- e. To become an advisory group that, through the interinstitutional and multidisciplinary debate creates recommendations and good practices that contribute to eliminate the factors and conditions that hinder the development of a full Digital Citizenship.
- f. To introduce Uruguay as a model in the area at a regional and international level.

### **3.2 Development of Skills**

This line of action aims at contributing to the development of the necessary skills to use the digital world in a responsible, safe, critical, reflective, creative, and participative manner. In that sense, it is necessary to continue working in the actions taken by people involved in the area, as well as to strengthen the generation of collaboration and coordination that enhance the efforts of all organizations of the country in building Digital Citizenship. The main objectives are:

- a. To count on a single window of access for the educational resources that enable to work in the construction of Digital Citizenship.
- b. To design a common pathway for the development of digital competences for different segments of the population.
- c. To design and develop products, consultation resources, theoretic and pragmatic content for the exercise of Digital Citizenship at a national and regional levels, adapted or addressed at different audiences.
- d. To generate exchanges and common dissemination on the different initiatives that drive each one of the organizations that work in the area.
- e. To motivate and accompany with resources and tools the debate and reflection on digital citizenship in the educational community, combining the different key players of education.
- f. To contribute to the development of actions of introductory and continuous training for people who work in the public sector and in key areas such as health, finance, education, among others.

### **3.3 Investigation**

The lines of action of the investigation and generation of debate, seeks to promote analysis and monitoring situations that contribute to the assessment of

the construction of Digital Citizenship through its dimensions of use and the strategic spheres of action (social, economic, cultural, and political). These lines intend to provide the design of public policies based on evidence. Therefore, the main proposed objectives are:

- a. To generate joint investigations on the different ways the citizens use ICTs.
- b. To have a single window of access to all investigations related to Digital Citizenship.
- c. To keep the information on the evolution of the construction of Digital Citizenship up to date.
- d. To carry out specific research.

## BIBLIOGRAPHY

BATTRO, Antonio. “Los presidentes también se educan”, in: Neurociencias para presidentes, Publisher Siglo XXI, Buenos Aires, 2017.

BOYD, Danah. It's complicated. The social lives of networked teens, Yale University Press, London, 2014.

BUCKINGHAM, David. La educación para los medios en la era de la tecnología digital, Conference, Rome, 2006.

EUROPEAN COMMISSION. Digital Citizen Handbook, 2019.

GARCÍA CANCLINI, Néstor. Diferentes, desiguales y desconectados. Mapas de la interculturalidad, Gedisa, Barcelona, 2005.

JENKINS, Henry. Confronting the Challenges of Participatory Culture: Media Education for the 21st Century, Mac Arthur, US, 2007.

LANDI, Oscar. Cultura y política en la transición a la democracia, Sociedad, Venezuela, 1984.

MORDUCHOWICZ, Roxana. Ruidos en la web. Cómo se informan los adolescentes en la era digital. Penguin Random House Editorial, 2018.

MORDUCHOWICZ, Roxana (2019). Un recorrido histórico: De la Educomunicación a la Ciudadanía Digital, UNESCO, 2019.

MORDUCHOWICZ, Roxana. El capital cultural de los jóvenes. Fondo de Cultura Económica, Buenos Aires, 2003.

PÉREZ TORNERO, José Manuel; TEJEDOR, Santiago (editores). Guía de tecnología, comunicación y educación para profesores. Preguntas y respuestas, Publisher UOC, Barcelona, 2014.

PRENSKY, Marc, “Digital natives and digital immigrants”, On the Horizon, MCB University Press, Vol. 9 N°. 5, October 2001.

REGUILLO, Rosana, Emergencias de culturas juveniles. Estrategias del desencanto, Ediciones Norma, Buenos Aires, 2000.

UNESCO, Alfabetización mediática e informacional: currículum para profesores, Paris, 2011. Available at: <http://unesdoc.unesco.org/images/0021/002160/216099S.pdf> (Last consultation: December 18, 2019).

WINCOUR, Rosalía. Robinson Crusoe ya tiene celular, Siglo XXI, Mexico, 2009.

WOLTON, Dominique, Internet y después, Publisher Gedisa, Barcelona, 2000.

## APPENDIXES

### Background

Although the term “Digital Citizenship” is relatively new, it is deemed pertinent to highlight the contributions made by some trends from different areas to the consolidation of such term and to the relevance of the approach thereto.

In the Edu-communication field, the communication pedagogy, the reflection upon the interconnection between communication and education, the education for critical reception and the management of the communication processes, among others, emerged with Mario Kaplún (1923-1998), Paulo Freire (1921-1997) and Celestine Freinet (1896-1966).

With regard to Media Literacy, it is worth mentioning the contributions of the British Film Institute (BFI) and its six analysis categories<sup>18</sup>, Len Masterman and his recommendations regarding what should be addressed in Media Literacy<sup>19</sup>, David Buckingham and his emphasis on the critical comprehension on how media works which allows to understand the way in which it portrays the world and how it produces meaning and, at the same time, how it is used by the audiences. European Union (EU) ’s interest in media literacy has increased in the last decades and reached the peak in the early 2015, after representatives of ministries of Education of Member States (MS) signed the Declaration of Paris. As well as committing to promote and implement policies for media literacy, in such declaration they agreed to focus on the development of social, critical thinking, civic, social inclusion and non-discrimination skills in the population of the region<sup>20</sup>.

---

<sup>18</sup> **Agencies:** Who communicates and what for? Who produces the message? What is its intention and ideology? **Categories:** What type of document is it? What is the genre? How does its genre affect the comprehension of the text? **Technologies:** How is it produced? What technologies do it use and how these impact on the final outcome? **Languages:** How does it convey what it wants to say? What codes and standards does it use? **Representations:** How does it present the topic? What is included and what is excluded? How does it refer to social groups? Does it use stereotypes? **Audiences:** Who is the message addressed at? How does it question its audiences? How do audiences resignify the content they receive?

<sup>19</sup> **Everything the media communicate is a construction.** The media offers representations and constructions which respond to each editorial line, ideology, and purpose. The education for the media must unravel those purposes and analyze what each media includes and excludes with regard to a certain event. **The media impact on our perception of the world.** Therefore, it is necessary to analyze how these constructions affect our perceptions and ideas. **Audiences resignify the messages.** Each one interprets or “negotiates” the meaning in a different way, based on the personal, family, social and cultural context. The education for the media should explore the particular way in which different audiences resignify messages. **The media respond to owners.** An education for the media intends to analyze who is the owner of the media issuing the message and how does this ownership affect the content it transmits. **Each medium has its own language, aesthetics, and codes.** The language is still a central theme in the education for the media. This education must teach how to identify the forms of the message and to analyze how language affects the content.

<sup>20</sup> In 2016, the European Commission and the Council of Europe (CoE) published the report “Mapping of media literacy practices and actions in EU-28”. This presents a snapshot of the MS with regard to the main actors involved and the projects developed in the matter, as well as the skills these have focused on and the level of significance.

The efforts of UNESCO and, in particular, the conceptualization of the “Media and information literacy for the construction and understanding of Digital Citizenship”<sup>21</sup> is also noteworthy.

The conceptual frameworks on Digital Citizenship prepared by the following organizations served as basis to address the topic in depth:

Council of Europe (CoE), which will develop the Digital Citizenship Project. For such purposes, the CoE made an exhaustive bibliographic review and survey of policies, programs, and projects, and held several consultation encounters with key mentors on the theme. In all cases, this included input and the participation from experts from different regions (Europe, United States, Canada, New Zealand, and Australia). In the preparation of the Digital Citizenship competence framework (10 Domains), the CoE considered it essential to incorporate a diversity of frameworks directly related to the theme. These frameworks cover media education models, Internet literacy, digital competences, global competences, social skills and education on democratic culture and values. The CoE then takes up the core ideas of media literacy and defines Digital Citizenship as “the management of competences that enable persons to engage responsibly in the digital environment”. Digital Citizenship -in this perspective- includes very diverse competencies, such as the ability to create, share, socialize, research, communicate, learn, work and play. It implies three major dimensions:

- Being online: Access to digital environment. Ability to avoid any kind of digital exclusion. Media and information literacy: thinking technologies.
- Well-being online: Competences to exercise an ethical behaviour and empathy towards others. Healthy use of technologies. Responsible management of identity and digital footprint.
- Rights online: Competences to participate in a democratic society and to acknowledge the responsibilities and rights that enable to build a safe digital environment for everyone. Comprehension of the privacy concept.

On the other hand, the European Union (the European Framework for the Digital Competence) also defines the digital competences. In its opinion, digital citizenship includes the following aspects and dimensions:

- Information literacy: To locate, select and process information/content from the Internet. Source analysis.
- Communication and collaboration: To know how to interact and collaborate through technologies. To participate in a digital environment.
- Digital content creation: To create and edit digital content. To understand copyright online.
- Safety: To manage privacy. To know how to build the digital identity and protect the reputation.

---

<sup>21</sup> **Media literacy**: it refers to the ability to understand the role of the media in the democratic society, to critically assess the content transmitted by the media and to use them for expression and participation. **Information literacy**: emphasizes the access to information, knowing how to locate it, assess it, process it, use it ethically and communicate it to others.

- Problem solving: To identify problems and resolve them in a digital environment.

Moreover, since 2015, through the European Digital Market strategy, the European Commission has developed different lines based on digital competences. In particular and since the year 2016, the European Skills Agenda was generated, which aims at coping with the digital skills 'deficiencies in the European Union through different instruments and initiatives, which include: the coalition for the first jobs and the digital skills, projects to promote the education in programming by the students and the financing of projects on education and digital skills, among others.

In United States, it is worth mentioning the contribution of Harvard University. There, the Youth and Media department prepared the dimensions that, in their opinion, the digital citizenship program should focus on:

- Privacy and reputation: To know what it means and how to manage it.
- Identity: To understand how each appears online.
- Positive behaviour: How to create kind and healthy relations.
- Security: How to protect the personal information on the Internet.
- Interaction with the community: How to use social networks to create awareness and promote changes.

Last and considering that this is not an exhaustive list of contributions and frameworks on Digital Citizenship, being aware there is a lot more material that has not been considered, the contributions from DQ Institute are taken into consideration. This institute, together with the World Economic Forum, also prepared a series of skills which define Digital Citizenship. These could be summarized in:

- Knowing how to build a digital identity and understanding the effects of the footprint left online.
- Using technology with balance through self-regulation.
- Recognizing risky behaviours: identifying them and understanding how these affect Internet surfing.
- Managing personal digital security: understanding the notion of privacy, knowing what the risks are and how to avoid them.
- Expressing empathy: knowing how digital behaviour can impact on others.
- Building digital literacy, understanding the structure and how digital media works,

### National reference studies

The Digital Citizenship Working Group identifies the existence of valid measurement tools at a national level to delve into the comprehension, understanding and dimensioning of Digital Citizenship. Among them, we should note:

**Survey on ICT Access and Use (EUTIC):** The EUTIC is a specific statistical survey carried out at an official level to get to know the situation of information and communication technology access and use in Uruguay. It is performed by the National

Statistics Institute (INE) and Agesic. Its aim is to obtain reliable and quality information about ICT access and uses by the households. The focal points of EUTIC are: "Access to ICT", "Knowledge and skills", "Uses of Internet and mobile phone" and "Digital Government". The EUTIC constitutes a key element for design and decision-making regarding public policies on telecommunications and digital inclusion in the country. This survey has been performed for the years 2010, 2013 and 2016 and its 2019 edition is being carried out.

**Survey on Digital Citizenship Knowledge, Attitudes and Practices (CAP):** This study is performed annually by the Information Society section under Agesic. It assesses the behaviour of Uruguayans in dimensions such as the ICT uses and skills, trust in the web channel as means for interacting with the State and trust in the State as administrator of web channels, among others.

**Kids Online Uruguay:** It is an empirical and systematic study about the risks and benefits of the use of Internet in Uruguayan children. The study in Uruguay is framed within Kids Online and Global Kids Online: an investigation and outreach network that seeks to generate compared evidence on the use of internet by children around the world, to promote their rights in the digital era.

**DQ:** The study was created by the DQ Institute in Singapore with the aim of assessing the digital competence level in children between 8 and 12 years old, promoting the development of Digital Intelligence (DQ) understood as the sum of social, emotional, and cognitive skills that allow individuals to face challenges and adapt to the demands of digital life. The instrument consists of an online anonymous questionnaire in Spanish, including 60 questions that must be completed in one hour all at once. The test allows to assess three macrolevels ("Digital Citizenship", "Digital Creativity" and "Digital Literacy") and eight associated dimensions ("Management of online identity", "Online privacy", "Screen time management", "Risks associated to the use of Internet", "Cybersecurity", "Digital footprints", "Critical thinking" and "Online empathy").

**International Computer and Information Literacy Study (ICILS):** It is an international study developed by the International Association for Evaluation of the Educational Achievement - The Netherlands (IEA). It was implemented in 2013 and 2018 in several countries that have participated. It is a standardized assessment that aims at determining the preparation of students for performing in the information area, determining the diverse factors that affect learning and the acquisition of digital competences, obtaining comparable data about the performance in digital competences. Moreover, the instrument allows to obtain information about the Information and Communication Technologies use patterns within and outside the classroom, including the attitudes towards technology and the perceptions about ICT functional knowledge.

**Profile of Uruguayan cybernaut.** This is a private investigation carried out by Radar company on an annual basis since 2003. This research includes surveys to people on ICT access and use, delving into varied themes such as e-commerce, social networks, types of devices used, browsers, etc. The survey is applied in two different formats: a telephone survey to a random sample of 1,200 cell phone numbers to people over 12



and a self-managed online survey of 2,000 cases to persons over 12, recruited through several ads hired in Facebook.

**World Internet Project + Uruguay (WIP+UY):** It is a representative survey of national scope to persons who live residential homes. It is the result of the local adaptation of the World Internet Project questionnaire (replicated in 50 countries, approximately) and, as from the year 2016, combined with the DiSTO Project (From Digital Skills to Tangible Outcomes) questionnaire. WIP+UY 2013 corresponds to a sample of persons aged 15 and older residing in homes throughout the country which have land line telephone.

**WIP+DiSTO Uy:** WIPUy + DiSTO, consists of the integration of the WIP and DiSTO projects in a longitudinal study of Uruguayan adults. WIPUy + DiSTO adapts and validates DiSTO (“From digital skills to tangible outcomes”) questionnaire to Uruguay. It starts with a crosswise study of Uruguayan adults which moves in successive waves towards a statistically representative panel of adult Internet users. The project is framed within an international network which includes the participation of Chile (Pontificia Universidad Católica de Chile), England (London School of Economics and Political Science) and The Netherlands (University of Twente). In 2017, the second edition incorporates the DiSTO questionnaire and was performed through a representative survey of all adults (aged 18 and older) with a mobile phone in the country.

**From technologies to tangible outcomes: the role of digital skills in the wellbeing of Uruguay’s public secondary education students:** It consisted of the adaptation, validation, and implementation of DiSTO project to a very specific population: public Secondary Education students in Montevideo. This research project was aimed at gathering empirical evidence about the relation between digital skills, the use of digital resources and the results arising from the use of the Internet in that specific time during the course of the life of Uruguayan adolescents. The study allowed to describe which students are benefiting to a greater extent of the use of Internet, the role of digital skills in these results, as well as their interactions within the context of formal secondary education. It is developed by UCU and ObservaTIC-UdelaR.