ePIC 2018

Paris 24-26 October

Building Open Recognition Ecosystems

Open Badges

Trust

Blockchains

Verifiable Claims

Bit of Trust

Identity

Proceedings

Includes ePIC 2017 papers

ePortfolios

Open Recognition

epic.openrecognition.org

Proceedings of ePIC 2018, the 16th International ePortfolio and Identity Conference, Paris 24-25-26 October 2018

FOREWORD

ePIC 2018, the 16th international conference was a key milestone in a journey on the path of recognition started in 2003. At that time 140 delegates from all over the world convened in Poitiers to explore how ePortfolios could contribute to "transforming individual and organisational learning."

During this 16 year journey the themes of the conference have expanded to address issues such as identity, trust, Open Badges, blockchains and this year "Building Open Recognition Systems." Whilst we had been relentlessly exploring technologies and associated educational and learning practices over the years, it was not until 2018 that we fully realised that the journey started in 2003 was that of an exploration of *recognition in a community context.*

In 2004, the call for contributions for the second ePortfolio conference stated:

> […] collection and presentation of evidence, the ePortfolio is more than the mere digitisation of evidence and the use of desktop publishing or authoring tools, or the delivery of electronic curriculum vitae. ePortfolios are fundamentally connectivity tools: connection of ePortfolios within an organisation (school, university, firm), a community (professional association, community of practice), connecting the different actors of various process such as assessment, accreditation of prior learning."
>
> Source: ePortfolio 2004 calls for contributions

While ePortfolios *could* have been the "connectivity tools" contributing to "transforming individual and organisational learning," the reality proved different. Far from exploiting the full potential of digital technologies, even as simple as *tagging* or more complex ones like *linked data*, ePortfolios have not developed much further than the initial "paperless portfolios" (similarly today, many Open Badges initiatives have not gone much further than "paperless certificates") Moreover, with the exception of rare sectors of vocational education, ePortfolio practices and technologies have been mostly confined to the world of academia, mainly within "pockets" inside a limited number institutions.

Catalyst in Action, a 2018 book edited by Bret Eynon and Laura M. Gambino presents a number of convincing cases of *high impact ePortfolio practices* in academia. While there is no denial that practices based on "inquiry, reflection and integration" work, there is no clear evidence that the ePortfolio technologies provided any advantage over generic digital publishing technology not christened "ePortfolios"—e.g. Wordpress—or even without the need for technology at all (indeed, one can practice inquiry, reflection and integration without the need of a portfolio or an ePortfolio!). There is no evidence either that students continue to keep and update their ePortfolios after graduation —it would appear that without the *extrinsic* motivation of grades, most students wouldn't do an ePortfolio in the first place…

This digression is useful to understand the impact Open Badges had on the conference, an addition to the 2012 conference suggested by Don Presant, a contributor to the conference since 2004.. Two years earlier, in 2010, the participants at the London conference were invited to address [10 ePortfolio challenges](). While not much had happened since, a distant cousin community was emerging around an instrument that could help addressing those very challenges and revive the hopes we had at the dawn of the ePortfolio era. Open Badges, first explored by Mozilla at the 2010 Drumbeat conference in Barcelona, opened new avenues for rethinking *recognition, identity, trust.* Simple images, backed by metadata, provided the long awaited conceptual and technical instruments to rethinking ePortfolio technologies and practices.

In 2012 we eventually *recognised* the *connectivity tools* we hoped to have found eight years earlier in ePortfolios, and invited Mozilla to introduce Open Badges at our ePIC conference in London. With Open Badges, we now had the instruments to rethink *recognition* technology and practices, moving from an *ego-* (me and my portfolio) to an

eco-recognition (me and my communities). We had the instruments to move beyond the borders of initial education and academia, life wide and lifelong. This is what we tried to capture with Nate Otto and Don Presant when we wrote the [Bologna Open Recognition Declaration](#) adopted at the 2016 conference, in deliberate open contrast to the formal academic « Bologna Process ».

After the second year in Bologna, 2017, we decided to bring the conference back to France. While we would have loved to stay longer in Bologna (Palazzo Gnudi was a wonderful and inspiring venue), we felt that something unique was happening in France and wanted to be part of it. The triggers of that decision, in no particular order: the largest ever French delegation at an ePIC conference (despite not being held in France and without French translation!); initiatives like *Badgeons la Normandie* echoing the idea of a learning territory we started exploring 15 years ago; a climate favourable to innovation with two reports directed by François Taddei for the Ministry of Education: *Towards a learning society* and *A plan to co-build a learning society* inviting to "building a society of recognition" (*bâtir une société de la reconnaissance*); the invitation to organise the conference at the brand new facility of the Centre for Interdisciplinary Research (CRI) that would open in September 2018 was the cherry on the cake!

The contributions you will find in the proceedings are testimony to the diversity of the reflections and actions that Open Badges have made possible. Originally dominated by the academic world, we now have the chance to give a voice to a much broader audience demonstrating that a lot of valuable knowledge is produced beyond the walls of academia and we still have to learn how to make it more visible, to recognise their contributors.

This represents both a challenge and a great opportunity! The journey continues !

Serge Ravet

NB: The papers submitted at ePIC 2017, are included in the 2018 proceedings. A note indicates which they are.

Table of contents

PAPERS (English)

PAPERS (French)

ABSTRACTS (English)

ABSTRACTS (French)

Annex

PAPERS (English)

ePortfolios and Open Badges for Open Recognition of Lifelong Learning Outcomes in Master's Students Training

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Abstract

The article describes the experience of introducing the Open Badges integrated with the technology of ePortfolio in the teachers training course for Master's students. The article describes the Siberian Federal University long-term experience in using ePortfolio technology in the evaluation of educational outcomes, reflection, professional development in lifelong learning. The paper reveals the structure of the e-course for undergraduates ePortfolio and Open Recognition Technologies in Lifelong Learning, the methodology of the blended learning model and its testing. Results of the study confirmed the hypothesis about the prospects of promoting the ideology of open recognition and the use of modern educational technologies (ePortfolio, Open Badges) in the training of future teachers at the Federal University. According to the results of Google-survey, students demonstrated a high level of satisfaction in learning.

Key words: ePortfolio, Open Badges, e-learning strategy, digital identity, learning outcomes

Introduction

There are three key ideas of the strategy of contributing to the open ecosystems. The first is engaging students in the modern digital environment by using e-learning and MOOCs. The second is expansion and opening borders by the methodology of open recognition of the learning outcomes. It involves building trust and digital identity to empower and support students' engagement. The third is introducing the ePortfolio and Open Badges technologies to students through the special course in Master's curriculum.

Siberian Federal University is a modern Centre of Excellence in innovation and technology. Development of digital learning environment is a priority for the University. It is represented by the resources:

- e-courses in the LMS Moodle [2];
- personal students' ePortfolios;
- massive open online courses (MOOCs);
- students' personal profiles [5];
- webinars and video conferences service [6].

ePortfolio is a vital component of it.
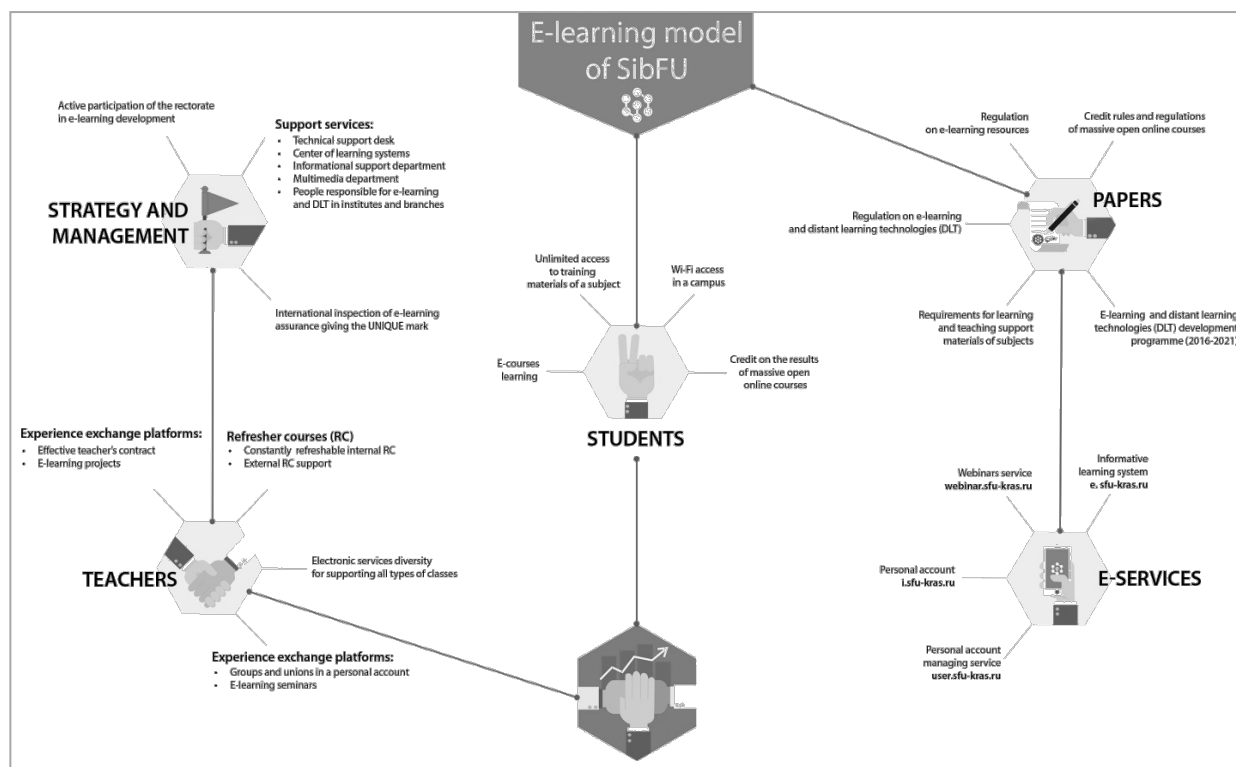
Figure 1. E-learning model of SibFU [1]

The scheme presents the current e-learning model of SibFU. It includes the actors of teaching-learning process, supported by e-services and connected by various strategies of online communication, assessment and feedback. Professors, implementing the e-courses, get financial bonus from the University administration.

The main purposes of using ePortfolio at SibFU are:

1. ePortfolio is an important part of the SibFU e-learning strategy.
2. It is the technology for personal and professional development of competences in LLL.
3. It is aimed at presentation and open recognition of LLL outcomes.

Students and professors of SibFU use ePortfolio for:

• presentation of students, masters, postgraduates achievements;

• mobility programs for students and staff;

• presentation of professors' scientific and professional achievements;

• teaching training: facilitation, tutoring, couching.

It builds digital identity inside the University and provides new opportunities for mobility and scientific projects.

Besides training Courses in Bachelor's and Master's Curricula, we implement ePortfolio as a part of the final state exams, as a resource of the lifelong learning e-platform. We organise ePortfolios competition among students annually. At the final state exams ePortfolio is used for demonstration and assessment of competencies. When studying English, students create Language passport in the Europass CV form.

Siberian Federal University has a long experience of using ePortfolio technology in the constructive learning paradigm. We started to introduce Open badges technology in educational process in 2017–18 academic year.
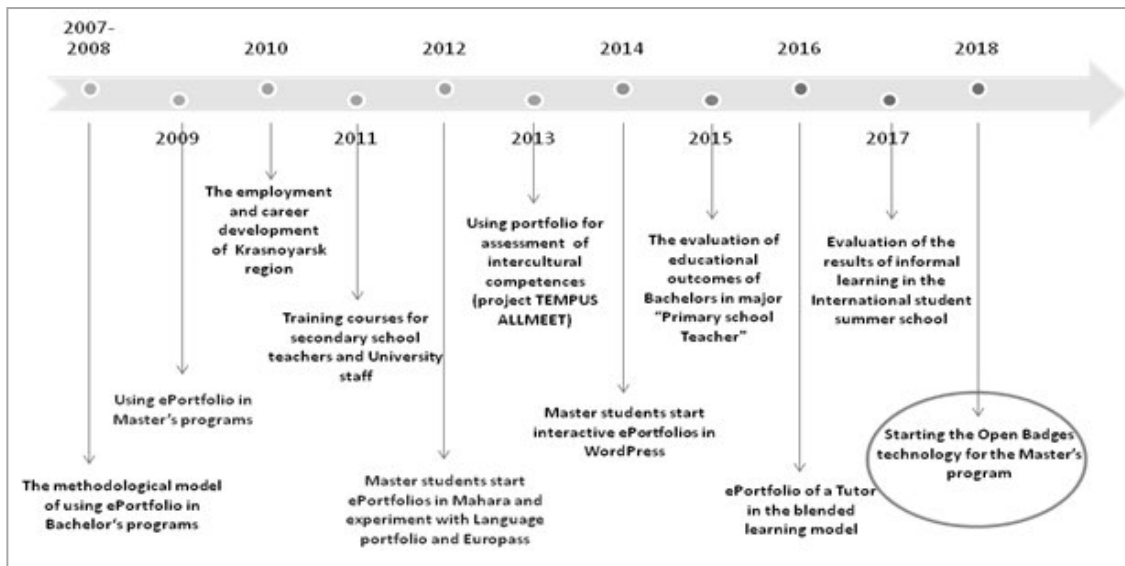
Figure 2. The experience of using ePortfolio technology in the constructive learning paradigm

Methodology

Among traditional pedagogical meanings of ePortfolio use – Implementing constructive learning methodology and reflection, Evaluation and Validation of Prior Learning (VPL), Personal Development Planning (PDP), Formative Assessment in Lifelong learning, Development of Learners Autonomy and Responsibility, Collecting and demonstration of the competencies, we can point out absolutely new ePortfolio values for Russian education reality: it is the open recognition of non-formal educational outcomes and development of open ecosystems.

Implementing constructive learning methodology and reflection	Collecting and demonstration of the competencies
Formative Assessment in Lifelong learning	Evaluation and Validation of Prior Learning (VPL)
Development of Learners Autonomy and Responsibility	Personal Development Planning (PDP)

Figure 3. Pedagogical meaning of the ePortfolio use

The analysis of acceptance and demand for ePortfolio and Open Badges showed that ePortfolio is popular in the Russian education practice. Unfortunately, Open Recognition is a rather controversial issue for the professional pedagogical community of Russia. The technology of Open Badges is not well-known and not popular among both students and

teachers. Only 1 % of professors and 5 % of students are familiar to it. It is connected with the Russian conservatism and teacher's stereotypes of "insularity", "protection", "borders".

According to the survey, there are the stereotypes in Russian people's comprehension. Open Badges are associated with Komsomol, Pioneers, Military organisations, Sport rank badges, Computer games tokens and army medals.

What are we doing to make changes? The new course ePortfolio and Open Recognition Technologies in Lifelong Learning in the Master's curriculum for 80 students was designed to overcome these barriers. The course is given in blended learning. During classroom activities, we use interactive pedagogical technologies: discussions, project activities, business games and data modelling. During group work students discuss models and criteria of competencies assessments. They create the group project of some activity or event and it's outcomes assessment. They present the project in the class and discuss the Open Badges graphics, describe the issuer and recipient. Further they work individually in the Moodle e-course [3].
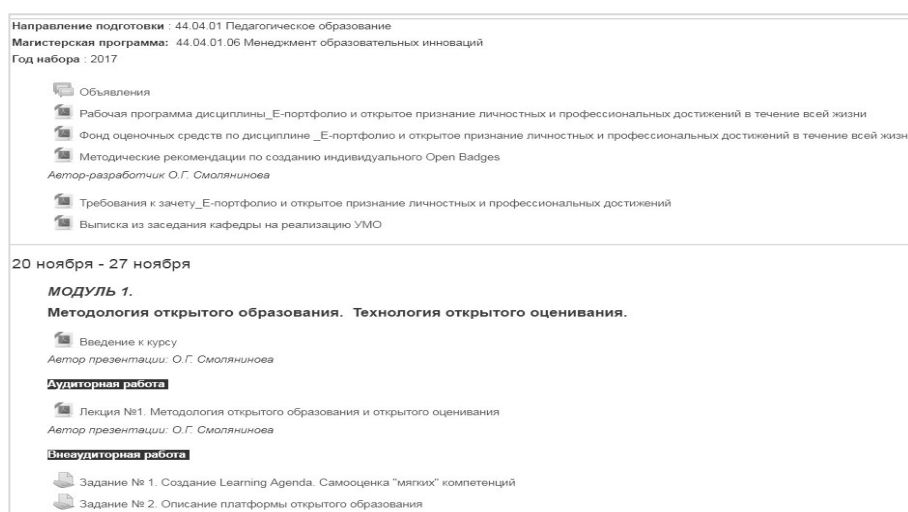
Figure 4. Outline of the course ePortfolio and Open Recognition Technologies in Lifelong Learning

The course consists of four modules.
- Module 1. Methodology of open education. Open assessment technology.
- Module 2. Open technologies and open education standards. VPL evaluation technology.
- Module 3. Methodology and technology of Open Badges in education and career.
- Module 4. ePortfolio and Digital Identity.

The types of activity of students in the training are the following:
1. Graphic design of the Open Badges and assessment models.
2. Learning Agenda created by means of self-assessment tool [4].
3. Self-evaluation of soft competencies.
4. Filling in the content of an individual ePortfolio.
5. Upgrade of the innovator-teacher's digital competence.
6. Using social media (Google, YouTube) and e-learning courses (Moodle).

The methodology and training materials were presented in the e-learning course. The outcomes were published in the individual ePortfolios and later students tested them during the teaching internship.
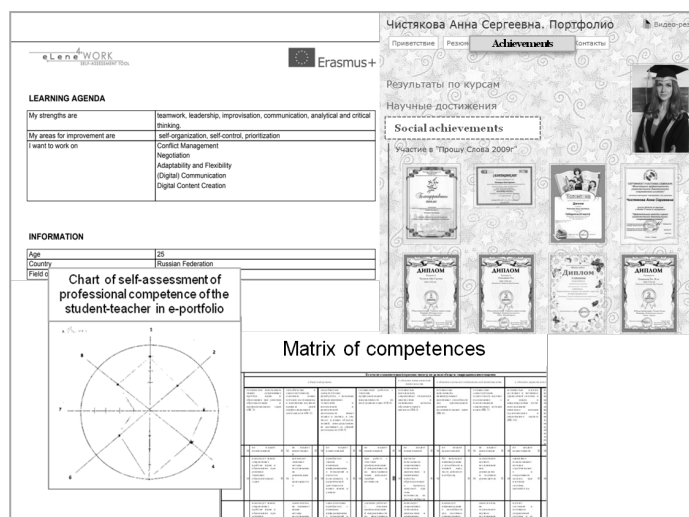
Figure 5. An example of a student portfolio artefacts

The methodology of achievements recognition is innovative for the Russian education system. Only in the last decade, Russian educational institutions switched to the open comprehensive expert evaluation thanks to ICT technologies and the competence paradigm. When studying Open Badges as a part of our course, undergraduates began by discussing the ways to measure competencies, independent evaluation and recognition of educational outcomes of not only formal, but non-formal education. Teaching methods used were small group discussion, business games, case-study. Students designed learning situations, educational outcomes, competencies, indicators of their assessment, target groups of Open Badges recipients and issuers and graphic design of Open Badges. The projects were discussed at seminars, and the Open Badges drafts were demonstrated in the student's portfolios. For their projects, students took not only educational but social, arts, sports, volunteer topics. Open Badges drafts created by students are presented in the fig.6.

Fig. 6. Open Badges designed by SibFU Students (School of Education, Psychology and Sociology)

Results

As a reflection, Master's students filled in an online evaluation forms on the Google Docs. More than 60 % of Masters noted that the tasks are of average complexity. This confirms that they are ready to Open Recognition and using Open Badges.

Relevance of recourses
19 answers

Relevant	17
Partly relevant	3
Not relevant	1

(horizontal axis: 0, 5, 10, 15, 20)

Complexity of the exercises
19 answers

Not complicated	6
Partly complicated	13
Complicated	0

(horizontal axis: 0, 4, 8, 11, 15)
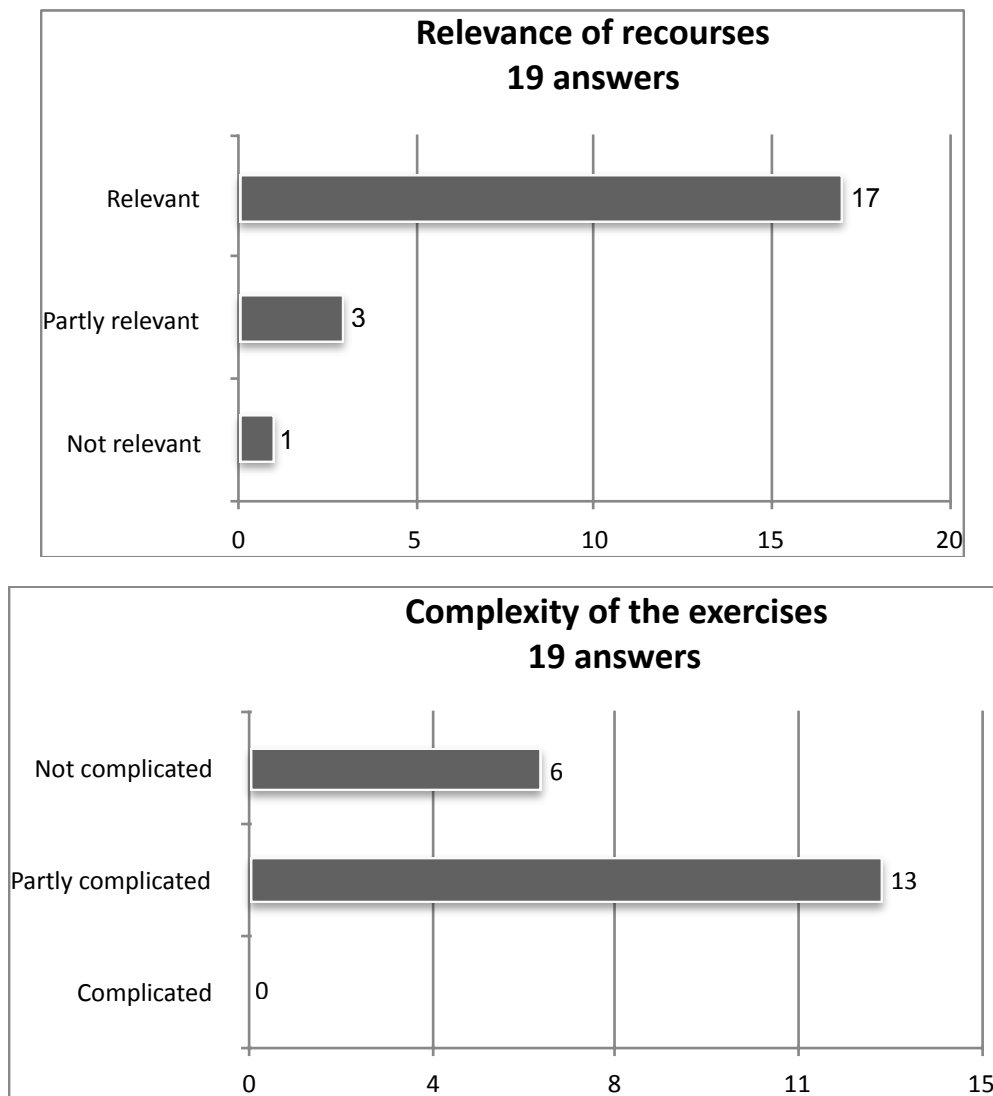
Fig. 6. Students' feedback on the content of the course

Students gave some comments and recommendations after the course. They were satisfied with the interactivity, emotional, creative and open cooperation during the learning process. Students noted the issue of the Open Badges developed as the evaluation of professional activity to be a significant event.

Comments:	
1	*"Excellent feedback, interesting resources, meaningful tasks".*
2	*"Comfortable conditions for creative self-expression".*
3	*"Creativity, discussions, collaboration and teamwork".*
4	*"Positive and emotional educational environment".*

5	*"New information. Interesting course tasks. A lot of skills can be applied in our professional activities"*
Recommendations:	
1	*Increased number of hours for project design.*
2	*Video tutorials on the development of the individual Open Badges*

Fig. 7. Students' feedback on the course

For dissemination of the open recognition methodology (in Russia and regions) at first a digital ecosystem of open badges within a Federal University should be created.

The Open Recognition Ecosystems, implemented in the educational process, should reflect the stages of training and development of soft and professional competencies of students in lifelong learning.

It can be interesting and useful to students for the following reasons:

• personal social value;

• digital identity;

• increased employment opportunities;

• academic mobility.

Creating an open space for sharing educational content and recognition is a key factor in promoting social integration of students in the open ecosystem Yenisei Siberia.

Acknowledgement

References

1. *E-learning model of SibFU. – URL: http://edu.sfu-kras.ru/elearning?page=3.*

2. *E-learning service of SibFU. – URL: https://e.sfu-kras.ru/login/index.php.*

3. *ePortfolio and Open Recognition Technologies in Lifelong Learning. URL:* https://e.sfu-kras.ru/course/view.php?id=21420

4. *Self-assessment tool. URL: http://sa.elene4work.eu/selfassessment.php.*

5. *SibFU ePortfolio service – URL: https://i.sfu-kras.ru.*

6. *SibFU Webinars service – URL: https://webinar.sfu-kras.ru.*

7. *Smolyaninova, O. G. (2016) Evaluation of the lifelong learning outcomes by means of the electronic portfolio: a monograph. – Krasnoyarsk: Sib.FU, 2016. – 362pp.*

8. Smolyaninova, O.G., Bezyzvestnykh, E.A. (2016) Eportfolio Technology in Evaluation of Students' Formal, Non-formal and Informal Learning, Accreditation of Educational Programs and Development of E-learning in a Federal University INTED 2016-10th International Technology, Education and Development Conference, March 7th-9th, 2016 — Valencia, Spain. — Pp. 0614-0619.

Open Digital Badges in a local healthcare ecosystem

Pieter van Knippenberg

The Netherlands

In the south of The Netherlands, close to the Belgian border, there is a unique concept of care in progress as of 2010. As a result of a cooperation of 10 partners form vocational education, (home)care institutions (with a total of about 10.000 personnel), local counsel and the Care Innovation centre in the town of Roosendaal.

Since 2014 the partners work together to realise an excellent care environment. They learn, discover and realise new care-concepts and bring them into practice.

During the last years, also because of government regulation and an increasing change in the demand for care, the partners are experiencing a growing mismatch between the demand for care, the formal education system with its diplomas and the skills of the thousands of care-workers.

An extra complication is that because of the booming economy there is a structural shortage of people working and wanting to work in healthcare or staying working in the care.

There was concord in the region to start an an experiment for a period of 4 years (starting in the fall of 2018) to examine and bring into practice the concept of open digital badges. It was realised that the open badges concept could solve a regional problem and smoothen out the mismatch in the region between the need for work and the available competences. A lot of health workers have developed/are developing a lot of competences while working that go far beyond that what is covered by their diploma's. Formal vocational education cannot easily adapt to the specific personalised demand for further education.

A constant adaptation from the formal educational system to new demands of skills and competences, although in progress, seemed to go way too slow for the care institutions. There was maybe a new way of solving the problem when the concept of open Digital badges was introduced in 2017 with a short introduction course and advice of the Regional Care Initiative.

A first two-day conference was planned for August 2018 on the following topics:

- Discussing and exploring Open digital Badges,

- Lining out a path to implement the use of badges,

- Connect and integrate with the different learning academies of the partners

- Interest and 'seduce' potential learners to start their learning pathway and claim their badges.

Alas, the conference did not take place and, as far as things seem now, might be held before the summer of 2019. So maybe at the next Epic conference there will be more to tell and show.

What happened?

- A grant for subsidy from the Dutch Government was not awarded. This put en enormous strain on the organisation. As far as an analysis at this moment can go it seems that everything went in survival mode.

- There were major changes in management. Sponsors of the project left and communication on innovation was difficult if not almost non-existent.

Part of the Zorgboulevard staff is still pursuing the concept of Open Digital badges.

Points of attention for the coming development, hopefully to start in 2019

Learners probably do not want to go to 'school'. Their experiences with the formal system is often at least not very pleasant.and for a lot of them school was a long time ago. How to activate learning and existing knowledge by issuing badges will be part of the project. The concept of Learning Readiness will be examined

The local counsel is especially interested in connecting people in a welfare situation with this promising labour market. Although a general labour shortage is developing in the region, there are still a lot of people on welfare.

There have to be contacts with the vocational education system to ensure that, in the long term or short term, the collected badges will be recognised and can contribute to a diploma if the learners wish so. This might be a challenge as regulation makes this recognition at least a challenge.

The experiment will make use of the ESCO database and team up with partners that will provide an online tool, easy accessible for the learners. Regular publications in an online environment will be part of the project.

Willingness/contribution of the partners to realise a vibrant and durable environment for healthcare for years to come, one that takes healthcare on a next level and is future proof.

An extensive research on expectations of the learner will take place. Activate and stimulate long life learning.

The partners are going to explore if the badges, acknowledged, accepted and validated by this local ecosystem in healthcare, will be a stimulus for health workers to keep working in the sector and region. This might be a very valuable result of the project.

Conclusion

As long as there is not enough proof and transparency of working systems using Open Digital Badges, the finding of funds for this innovation is difficult.

Obviously the need for change, the urgency, is not enough to find sufficient funds for a longer period to discover the possibilities.

Digital Badges and Open Badge Passport. Perceptions of MSF

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MSF, Spainur

Context/Objective:

MSF OCBA is developing the TEMBO program: "Your personal learning and development environment".

This program aims to provide MSF field workers with a learning system based on a software platform that will help them take control and manage their own learning and, therefore, their own development. One of the pillars in this project is related with digital badges as a resource to promote the professionalisation or certification of the learning skills acquired in the humanitarian sector.

In this presentation, we will present specifically the results regarding the perceptions of the MSF Field Staff about the use of digital badges in two levels: the relevance assigned to digital badges and the user experience about the system and process to claim the badges.

Procedure:

A pilot was held in Nigeria in 4 different locations: Abuja, Maiduguri, Pulka and Gwoza from 17/06 to 01/07. 74 MSF field staff participated (58% medical, 30% Logisticians, 12 % HR). They used the digital skills, clinical skills and emergencies learning solutions. Each of them concluded with an evaluation to obtain a badge as part of future certification.

We tested a Digital Learning Ecosystem that integrated the following systems: Mahara, OBF (Open Badge Factory) and OBP (Open Badge Passport) and Totara 2.9. as shown in the diagram below:

Our MSF Credential Hub was built based on Open Badge Passport with the aim of providing a personal space for learners to manage her/his credentials obtained throughout the learning process. MSF Credential Hub is connected to Open Badge Factory and to Totara so all that happens within this digital learning ecosystem can be recognised.

Results

At the end of the learning journey the 74 participants got around 300 badges related with the proposed learning topics: digital skills, clinical skills, responding to emergencies and general badge related with this learning journey.

Badges Issued: 85   99   58   57

Most of the participants evaluated the badges experience as a great experience, useful, and commented about the added value and relevance of the badges as a recognition model.

Below a sample of the participants comments:

> *I would use badges in search or application for other jobs. I would like to use the badges on my CV and resume*

> *I will like to apply a job in other organisations with the badges I would use badges to apply for a certification*

> *Could be very useful if widely recognised by all sections and other ngos*

Badges and My Credential Hub were experienced differently in the different locations where the pilot took place. In all locations the same explanation was shared with participants, however, when it came to experience the badges and My Credential Hub, there were some differences (see below).

- Abuja and Maiduguri: participants had access to My Credential Hub and to the badges obtained throughout the process. It is important to highlight that the **interaction OBF-Tembo Dashboard**

- **My Credential Hub** was not working for all users. Some participants did not get their badges due to a technical issue.

- In Pulka, participants were able to experience badges in the local server system (mentioned above). Due to connection issues, they were not able to access My Credential Hub,

- In Gwoza the experience was completely offline, so participants were not able to experience badges.

Conclusions

The concept of badges was generally very well accepted by participants. They clearly understood the potential and different applications of this learning innovation. It is important to highlight that the main preferences are related to the recognition of technical skills even though recognising experience and management competences are highly valued. When it came to the use of badges, most of the participants considered very important the possibility of including these credentials in a more formal CV. This fact is especially relevant for non-medical profiles. Medical profiles, on the other hand, preferred to use badges when planning their career or applying for certifications. Regarding the Open Badge Passport component, technical issues were experienced. These did not allow the MSF Tembo team to fully test the OBP suitability for the MSF context.

Open Badges for the accreditation of media-related competencies in higher education using the production of instructional videos as a case study

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Abstract

At our university, we observe an increasing demand from lecturers to let their students produce instructional videos. So far, video production competency has not been mentioned in the curricula of our university. To reward these additional competencies we introduced Open Badges as a micro-accreditation system. We conducted a pilot study with 78 student participants in three courses that included video production by students. We set up five Open Badges. In a pre- post design, we used questionnaires about transparency, motivation, acceptance, informative value, design of the badges, and possible contexts for application. We also asked about the relevance of privacy when using badges in social networks. The pre-test was supplemented by an assessment of computer self-efficacy; the post-questionnaire was supplemented by questions on the usability of the badge system. For the lecturers' perspective, we applied the method of participating observation as well as structured interviews. Results of the current study show that the vast majority of students have no previous experience in dealing with badges. The descriptions of the badges and the procedure for their acquisition are considered comprehensible. With regard to the motivation of the students, a divided picture has emerged. Some students see no motivation gain from the acquisition of badges. Others are motivated by the prospect of using the badges in applications or by the fact that their achievements are rewarded. The effort required to obtain a badge is considered appropriate. However, only about half of the students consider badges personally beneficial. This is probably because the majority of students are freshmen who want to become teachers. The highly formalised application process in this area does not allow a formal recognition of badges. Only very few students plan to use the badges in their own applications. Few students can imagine using badges in social networks, although the answers suggest that students are unaware that social networks also exist in a professional context.

Introduction

The University of Koblenz-Landau is a medium-sized university in Rhineland-Palatinate in Germany with 16.000 students. The university has two teaching campuses (Koblenz and Landau), about 170 km apart from each other. The primary focus of the university is teacher training for all school types in Rhineland-Palatinate.

At the university, we observe an increasing demand from lecturers to let their students produce instructional videos instead of, or in addition to, giving seminar talks. This trend is particularly strong in both Faculties of Educational Sciences at the two campuses of our university. This is due to several ongoing digitalisation initiatives in schools as well as at universities. So far, video production competency for students has not been mentioned or even acknowledged in the curricula of our university. However, there is a demand for some reward for these additional competencies. To this end, we introduced Open Badges as a micro-accreditation system. In this study, we report on the implementation of badges, on their use by students and lecturers, and on their comprehensive evaluation.

State of the Art

Open Badges represent visual indicators that function as a micro-credentialing system to demonstrate and recognise accomplishments, knowledge, skills, or competencies within a digital environment (Ifenthaler, Bellin-Mularski & Mah, 2016; Muilenburg & Berge, 2016). An Open Badge consists of a graphic representation with embedded metadata that represents evidence of specific achievements or claims in formal or informal learning, or even community engagement. In order to issue, earn, present, and verify Open Badges, a badging platform is required that is compliant with the Open Badges Infrastructure (OBI). The Open Badge archi- tecture was initially created in 2011 by the Mozilla Foundation. In 2018 version 2 of the Open Badges standard was released.

Today Open Badges are widely used in educational as well as professional settings. Carey and Stefaniak (2018) explored how digital badges are being implemented in higher education set- tings. Towards this end, they used semi-structured interviews with ten individuals who are considered leaders in the badging community. The participants agree that in higher education badges can be meaningful if used intentionally and purposefully. However, there are still some controversies. The authors conclude that more empirical research is needed to improve practice and establish theory. In particular, these authors see the need for more case studies. Wilson et al. (2016) give examples where university-based research teams implement badges on the level of individual courses as well as on program level. Wu et al. (2015) discuss the uncertainty of professionals in the field of higher education how to incorporate digital badges into their practice. The authors present four different applications of digital badges to inspire educators to begin using digital badges at their own institutions. One of these examples is the use of eight digital badges in the undergraduate course "Introduction to Educational Technology". One of these badges demonstrates skills in media editing software. McDaniel and Fanfarelli (2016) present two different case studies, both attempting to improve university student engagement and motivation. The first case study comprised of a custom-designed open source badging sys- tem for the course "Adventures in Emerging Media", developed from the ground up. The sec- ond case study used a commercially designed system for digital badges that were integrated into a learning management system. The comparison of both approaches resulted in the recommendation that before designing a study around badges or even using badges, researchers or instructors must carefully outline requirements for a badging system and any associated re- search questions and learning objectives tied to that system.

Methodology

Instructional setting

In the summer term 2018, we conducted a pilot study with 78 student participants in three courses that included video production by students. These courses were "Media Education" (campus Koblenz), "Diversity Management in Higher Education" (campus Koblenz), and "Intercultural Sensitization" (campus Landau). We also included the three lecturers of these courses in this study.

Characteristics of the sample groups

Sample group of students. The pre-test was answered by 84 students, the post-test by 82 stu- dents. Matching of IDs resulted in 78 students with matching pre- and post-data. Among them, 74% (58 out of 78) were female, 26% (20 out of 78) male. The majority of 91% of the students (71 out of 78) were student teachers, mostly B.Ed. (69 out of 78). Only two students were in the M.Ed. program. A small number of students (9%, 7 out of 78) studied for the dual-subject Bachelor. A majority of 77% (60 out of 78) of the students was in the first two semesters and 83% (65 out of 78) were between 19 and 22 years old.

Sample group of lecturers. All three individuals were mid-level academic staff members, fe- male, and experienced university lecturers. All had limited or no previous knowledge about badges and no experience with the badge software used in this study. None of the lecturers had ever worked with any badge software before this study.

Students' previous experience with badges. The vast majority of students had no previous experience in dealing with badges, neither from their education nor from other areas. Only 13.2% (10 of 76) of the students had heard the term "badge" previously. Among these students, only 2.6% (2 students) had heard the term "badge" in an educational setting, i.e. at school. Males had heard the term more often than females. There is no correlation with the age of the students.

Students' computer literacy. Men consider themselves slightly more computer-savvy than women (t-test, p = 0.08, not significant). Dual-degree Bachelor students consider themselves significantly more computer-savvy than B.Ed. students (t-test, p = 0.04). The two M.Ed. stu- dents consider themselves to be more computer-savvy than the B.Ed. students. Students spend an average of 3.4 hours a day on the Internet. In this respect, there is no difference between the study programs. Only one student (1.3%) stated not to use social networks at all. Facebook is used by 88.5% (69 out of 78) and Instagram by 73.1% (57 out of 78) of students, respectively.

Twitter (9%, 7 out of 78), Tumblr (7.7%, 6 out of 78), and Google Plus (5.1%, 4 out of 78) are clearly less used. Only two students (2.6%, 1 teacher student, 1 dual-degree Bachelor student) use occupational social networks such as LinkedIn.

Setup of Open Badges

At present, there are several well-established badge systems available. For the pilot study, we set up five Open Badges using the "Open Badge Factory" (OBF, https://openbadgefactory.com/) platform. These badges were based on a media literacy model. Here, we used the competence-oriented media-education concept for primary and secondary schools in the state of Rhineland-Palatinate, Germany (Pädagogisches Landesinstitut Rheinland-Pfalz, 2014). This competence model consists of five competence

areas: (1) operate and apply, (2) inform and investigate, (3) communicate and cooperate, (4) produce and present, and (5) ana- lyse and reflect. On this basis, we derived a hierarchical competence grid for all workshops taught by our institute. We assigned existing workshops to specific competencies for each badge. In some cases, we even designed new workshops tailored to these competencies. In case of the video-related workshops, we finally came to the decision not to use any form of hierar- chical dependencies. Instead, any of these workshops is tailored towards beginners; the work- shops can be attended in any order and do not need any prior knowledge. As a result, each badge reflected one of the five workshops we taught: (1) "Video Production Support at our Univer- sity", (2) "Introduction to the Didactics of Instructional Videos", (3) "Introduction to Video Equipment", (4) "Video Editing", and (5) "Production of Screencasts".

When designing the graphics for our badges, we considered the basic principles of modern graphic and visual design (Lohr, 2007; White, 2011). These principles are: (1) Alignment, (2) hierarchy, (3) contrast, (4) repetition, (5) proximity, (6) balance, (7) emphasis, (8) proportion/ scale, (9) pattern, (10) unity/harmony, and (11) rhythm/movement. Each object of graphic design consists of the basic design elements such as (1) point, (2) line, (3) shape, (4) form, (5) color, (6) value, (7) space, and (8) texture. Designing a digital badge can be described as using these basic design elements and combining them to fulfil the design goal, while applying the design principles stated above. In our case, the goal was to create distinct badges for different workshops of the same institute. In addition to text, which needs to be large enough to stay readable on a small badge, we used colours to establish discriminability between the badges. The biggest challenge when designing any digital badge is the optimal use of limited space. Figure 1 shows two representative badges, illustrating the results of our creative work.

Figure 1. Examples of the visual representations of two badges created for this project: "Introduction to the Didactics of Instructional Videos" (left) and "Video Editing" (right).

Research questions and evaluation setting

We were interested in nine research questions in seven areas, detailed in Table 1. The primary objective was to find out to what extent the use of badges as a micro-accreditation system for achievements that would otherwise not be rewarded would be *accepted by students* and lecturers. Furthermore, we wanted to examine to what extent badges would influence the *motivation of students* to take part in certain courses or to get more involved. As important *factors influencing* both student acceptance and motivation, we surveyed especially the *transparency* of badge usage and the *usability* of the badge tools. With regard to the current state of research, we chose a qualitative approach for the pilot study. Some of the research questions target students (see Section 3.5), while some target lecturers. For the evaluation of the students' perspective, we deployed questionnaires both before and after the event. For lecturers, after their courses we used (1) semi-structured

interviews (see Section 3.6) and (2) participant observation (see Section 3.7) as evaluation methods.

Acceptance	What additional values do the students expect and will these actually be realised? How do the students assess the relation between effort and benefit?
Motivation	To what extent can students be motivated to participate in educational offerings by awarding badges? What role does the transparency of these offerings play?
Transparency	Does the use of badges increase the transparency of educational offerings?
Usability	How well are the users able to use the badge system?
Informative value	How meaningful are the badges?
Design	How should badges be designed to be visually appealing?
Context of use	What are the relevant contexts of the use of badges?

Table 1. Research questions

Students' evaluation

The evaluation consisted of several parts. Prior to the workshops, the students received an introduction to the badges and a questionnaire. In this preliminary survey, we collected the socio- demographic data as well as potentially relevant prerequisites of the students. With respect to the research questions, we asked about transparency, motivation, acceptance or benefit, in- formative value, design of the badges, and possible application contexts. Moreover, we asked about the relevance of privacy when using badges in social networks. The pre-test was supplemented by an assessment of the students' computer self-efficacy. Here, we used a revised and shortened version (27 questions) of the computer self-efficacy scale by Cassidy & Eachus (2002) which was translated to German by Spannagel & Bescherer (2009).

In order to evaluate the extent to which students' assessment changed in the course of the event and after receiving the badges, at the end of the course a second questionnaire was completed, which addressed the same research categories as the pre-questionnaire. This questionnaire was supplemented by questions regarding the usability of the badge system we had used [OBF and "Open Badge Passport" (OBP, https://openbadgepassport.com/)].

Semi-structured interviews of lecturers

In order to be able to grasp the perspective of the lecturers, we used semi-structured interviews. For each lecturer, the interview started with a short welcome message followed by open ques- tions. The first question was the general impression of badges. Then we asked about previous knowledge of badges and badge tools. We then followed the research questions and asked about transparency, motivation, usability of the software, acceptance, informative value of the badges, and their design. We ended with questions on usage scenarios of badges and data protection. For analysis, we recorded the interviews with an audio recorder, transcribed them to text files and, finally, clustered matching answers.

Participant observation of lecturers

As our second approach to assess the lecturers, we used participant observation. This method consists of the recording of audio and video of one lecturer at a time while simultaneously recording a screencast using Camtasia Studio 9.1.1 (https://www.techsmith.de/camtasia.html). During this observation, we let the lecturers talk freely to get an idea what is on their mind and what they do or intend to do with the software. This technique allows matching the user behaviour in the software (e.g. mouse movements and mouse clicks) with what the lecturer has in mind as well as his/her facial expression.

Before this recording, we gave the respective lecturer a handout with detailed instructions how to login to OBF, how to review a badge application, and how to issue a badge. Then we gave them the following task: "A student claimed a badge on OBF. Please review the badge appli- cation of [name of student] and issue the badge." Here we recorded the process beginning with the login to OBF up to the completion of reviewing a badge application.

Results and discussion

In this chapter, we first describe the actual use of badges by students (Section 4.1) and their claiming, receiving and use-cases of badges (Section 4.2). This is followed by results on the usability of OBF and OBP from the perspectives of students (Section 4.3) and lecturers (Section 4.4), respectively. Sections 4.5 to 4.9 are about transparency, motivation, acceptance of badges, their informative value, and their design, respectively, all from the students' perspective. Finally, we present the results of the semi-structured interviews with the lecturers (Section 4.10).

Actual use of badges

Of all students of the sample group, 43.6% (34 out of 78) claimed at least one badge. Females claimed badges more often than males. As the main reasons for not claiming a badge "No time" (or "Still to be done") was given by 41% (16 out of 39); "I do not need a badge" by 31% (12 out of 39), and "Forgot to do it" by 28% (11 out of 39). Among the dual-degree Bachelor students, two provided reasons for not claiming a badge: one stated "no time", the other stated, "I do not need it". An OBP account was created by 18.2% (14 out of 77) of the students. The main reasons for not creating an account in OBP were: "I did not know about OBP" by 39% (12 out of 31), "I do not need it" or "It is too much effort" by 23% (7 out of 31), "Still to be done" by 16% (5 out of 31), and "No time" or "Forgot to do it" by 10 % (3 out of 31) of the students. Among the dual-degree Bachelor students, two provided reasons for not creating an account: both claimed not to have known about OBP. Only one dual-degree Bachelor student created an OBP account at all. Only 2.6% of the students (2 out of 78) used a badge or presented it to someone else.

Claiming, receiving, and context of use of badges

The following numbers comprise only the subset of students who actually claimed at least one badge (*n* = 34). Of this subset, 82% (28 out of 34) found the badges easily or rather easily in OBF. Ninety-one percent (31 out of 34) found the way to claim a badge in OBF easy or rather easy. In contrast, 44% (11 out of 25) found saving badges (in e.g. OBP) very easy or rather easy, while 56% (14 out of 25) found it rather difficult or very difficult. Unfortunately, there are no further explanations in the free text answers for this result. Interestingly, 76% (13 out of 17) of the students stated that presenting a badge was easy or rather easy. However, only two students (see Section 4.1) stated in another question that they presented

a badge. Unfortunately, the free text answers of these students do not provide any explanation for this mismatch. Asked in the pre-test for which use cases students intend to use the badges, 63% (39 out of 62) claim that they would use badges in job applications. Here, they want to use badges (1) as a documentation or proof of competence or additional qualification, (2) for better chances in job applications, (3) because they are comparable and informative, and (4) because they show the ability to deal with new technologies. Fifteen percent (9 out of 62) of the students do not want to use badges because either as a future teacher, they do not need badges for job applications, or they have no experience with badges. The remaining students do not know any context of use (8%, 5 out of 62) or need the badges for personal use (5%, 3 out of 62). The majority of students (91%, 68 out of 75) would not or rather not use badges in social networks. Reasons stated are "no benefit from" or "no sense to" badges. Some students also do not like or do not use social networks, or they think that badges should be used in a professional context and not in social networks. A majority of students (82%, 60 out of 73) think that privacy in the context of social networks is important or rather important. Here, it is important to note that only one student (1.3%) stated that he/she does not use any social network at all, 88.5% of students use Facebook, and 73.1% use Instagram (see Section 3.2). We interpret this by misconceptions of the students. We assume from free-text answers that most students did not associate the term "social network" with career-oriented social networks like ResearchGate, XING, or LinkedIn. Only two students stated that they use this type of social network. Among the 9% of students (7 out of 75) who would use or would likely use badges in social networks we see that these few students have career-oriented social networks in mind (free-text answers like "I would only use them in LinkedIn") or want to use badges "for job applications via social networks".

Usability of OBF and OBP from students' perspective

In order to evaluate the usability of OBF and OBP, we again considered only those students who actually claimed at least one badge. For 92% (23 out of 25) of the students the badge software was easy or rather easy to use, for 84% (21 out of 25) it was well-structured and 96% (23 out of 24) stated that it used comprehensible terms. In contrast, 73% (16 out of 22) of the students stated that the badge software demanded unnecessary entries and 87% (20 out of 23) missed helpful explanations during the claiming and the saving processes. They also missed an explanation how to present badges. Unfortunately, none of the students gave further explanations in the free text answers. We could not identify any correlation between problems with the usability and computer self-efficacy.

Usability of OBF from lecturers' perspective

All lecturers could issue the badge in 5 to 6 minutes. The possibility to set an expiry date for the badge confused the lecturers. Although there is an explanation what this feature does right below the expiry date field, this function needs to be explained better. In addition, we need to explain this feature in our handout. Otherwise, there is a risk that expiry dates are set acci- dentally. The largest usability problem for the lecturers, however, was the lack of feedback from the system regarding the status of issuing of a badge. Besides these minor problems, all lecturers could use OBF without further problems, although they all used it for the first time.

Transparency of badges from students' perspective

The descriptions of the badges and the procedure for their acquisition are considered comprehensible by 87% (61 out of 70) to 94% (63 out of 67) of the students. Among those

students who actually claimed a badge, for three questions, the transparency significantly increased from pre-test to post-test: (1) The description made it clear what was expected of me (Wilcoxon signed rank test: p = 0.04; paired sample t-test: p = 0.03); (2) The learning objectives were clear (Wilcoxon signed rank test: p = 0.01; paired sample t-test: p = 0.008); (3) The skills to be imparted were identifiable from the descriptions (Wilcoxon signed rank test: p = 0.01; paired sample t-test: p = 0.007). We interpret this increase to derive from the better understanding that the students gained throughout the seminar regarding both the content and requirements of the badges offered to them.

Motivation of students

With regard to the motivation of the students, a divided picture has emerged from the post-test. Some students see no motivation gain from the acquisition of badges: for 67% of the students (49 out of 73) the prospect of a badge was meaningless or not relevant. This view was more pronounced among the prospective teachers (70%, 46 out of 66) than among the dual-subject Bachelor students (43%, 3 out of 7); however, the second sample is rather small. For 72% (44 out of 61) badges do not play a role in the choice of future courses. This view was more pronounced among the dual-subject Bachelor students (86%, 6 out of 7) than among the teacher students (70%, 38 out of 54). Only 21% (13 out of 61) of all students think a badge is a bonus for effort, motivates or is helpful for the future.

A comparison of pre-test and post-test results gives some valuable insights. In the pre-test, 54% (42 out of 78) stated that a badge would motivate them to prepare the course. The breakdown by degree programs is interesting here: while 52% (37 out of 71) of teacher students hold the view that a badge motivates them to better prepare for the lecture, only 29% (2 out of 7) of the dual-subject Bachelor students share this opinion. However, in the post-test only 9% (5 out of 58) stated that the prospect of a badge motivated them to prepare more thoroughly. Among the dual-subject Bachelor students this view was more pronounced (29%, 2 out of 7) than among the teacher students (6%, 3 out of 51). A similar picture can be seen in the question if the pro- spect of a badge would motivate them to take more initiative in the course. While in the pre- test 52% (39 out of 75) state that badges motivate them to take more initiative, in the post-test only 32% (24 out of 74) hold this opinion. Some stated in the free text answers that they are not interested in badges and the use of badges for them is unclear. Here, too, there are differences between the individual degree programs. In the pre-test, 60% (3 out of 5) of the dual-subject Bachelor students compared to 51% (36 out of 70) of the teacher students stated that the use of badges motivated them to show more initiative in the lectures. In the post-test, this difference among the degree programs became more evident: 57% (4 out of 7) of the dual-degree Bachelor students compared to 30% (20 out of 67) of the teacher students claim to show more initiative.

Acceptance of badges by students

The acceptance of badges decreases from pre-test to post-test. The question whether badges should be used for the documentation of efforts is answered positively for 71% of students (36 out of 51) in the pre-test but only 53% (28 out of 53) in the post-test. The free text answers for this question indicate that reasons for answering "yes" are motivation, recognition for effort made, proof of competencies, and that badges are meaningful. Reasons for answering "no" are that ECTS-points are regarded as sufficient and the presumed limited knowledge about badges. Eighty percent (4 out of 5) of the dual-subject Bachelor students state in the pre- as well as the post-test that badges are to be used to

document one's own performance (as proof of competence/performance documentation). Only one student in the pre- as well as one in the post-test is of the opposite opinion. In the pre-test, this student provides the explanation that badges should only be used as a supplement. Unfortunately, no reason is provided in the post-test. The answers of the teacher students do not essentially differ from those of the group as a whole.

In contrast, 87% of students in the pre- (67 out of 77) and post-test (59 out of 68), respectively, considered the effort needed to obtain a badge to be appropriate. Among the students of the dual-subject Bachelor, 100% (7 out of 7) were of this opinion in the pre-test, whereas in the post-test the answers were distributed in the same way as among the teacher students. Thirteen percent of students thought otherwise, and most of them found the effort was too small (but this is only true for the teachers, none of the dual-subject Bachelor students made such a statement). Obtaining a badge for mere participation is considered as not appropriate (pre-test: 67%, 51 out of 76; post-test: 69%, 48 out of 70) by the majority of students. Reasons given in the free text answers are that "you have to do something for it" and "badges would lose value". The remain- der of the students (pre-test: 33%, 25 out of 76; post-test: 31%, 22 out of 70) who find it appropriate to obtain a badge for mere participation argue that "you also learn through participation" and "you have to do enough already". Among the dual-subject Bachelor students, the picture on this question is not so clear. In both the pre-test and post-test, 43% (3 out of 7) of the students said they would find it appropriate if there was a badge for mere participation; 57% (4 out of 7) disagreed. The majority of the teacher students rejected obtaining a badge by mere participation in both tests by 70% (47 out of 69 in the pre-test; 44 out of 63 in the post-test) to 30% (22 out of 69 in the pre-test; 19 out of 63 in the post-test).

Informative value of badges

In the pre-test, the estimate of the students about the value of the badges for them is divided into two roughly equal halves. While one half (52%, 39 out of 75) thinks that badges have a high or rather high value for applications or as proof of competence, the other half (48%, 36 out of 75) thinks that badges have no value for them. These 48% argue that badges are "useless for teachers" and that "badges are not common enough" and "no one knows them". In the post- test, this picture dramatically changes. Now 75% (51 out of 68) of the students think that badges have no or rather no value for them for the same reasons as above. This change of opinion is highly significant (Wilcoxon signed rank test: $p = 1.5 \times 10^{-5}$; paired sample t-test: $p = 3.7 \times 10^{-6}$) and affects both groups. Among teacher students, 51% (35 out of 69) in the pre-test believe that badges have a high benefit for them. Among the dual-subject Bachelor students, 67% (4 out of 6) agree. In the post-test, only 24% (15 out of 62) of the teacher students and 33% (2 out of 6) of the dual-subject Bachelor students consider badges useful. When we focus on just those stu- dents who actually claimed a badge, we observe the same dramatic change of opinion regarding the value of badges, which is also highly significant (Wilcoxon signed rank test: $p = 0.0005$; paired sample t-test: $p = 0.0001$).

Asked for the general value of the badges, most of the students (pre-test: 74%, 56 out of 76; post-test: 56%, 29 out of 52) stated that badges are valuable for job applications and as a proof of competencies. In the pre-test, a higher percentage of dual-subject Bachelor students (86%, 6 out of 7) were of this opinion, compared to 75% (52 out of 69) of the teacher students. Unfortunately, a breakdown by group makes little sense in the post-test, as only three dual-subject Bachelor students answered it. This can be interpreted as

follows: students realised towards the end of the seminar that badges do not play any role for their job applications and their future career. In the post-test, it is primarily argued that the badges are not interesting for teaching students, that they are not sufficiently known outside the university, and that it is not yet fore- seeable how widespread they will be in the future.

Design of the badges

The visual aesthetics of badges is only relevant for 46% (11 out of 24) of the students. For male students the visual aesthetics of badges is more important than for female students. In addition, for students of the dual-subject Bachelor it is more relevant than for teacher students. Among the teacher students, M.Ed. students regard the visual appeal as more relevant than B.Ed. students do. In the free text answers, some reasons for the relevance of aesthetic appeal are stated:

(1) A visually appealing badge attracts more attention in applications; (2) it creates the impression of importance; (3) it looks more professional. The students voting for the irrelevance of the appeal of badges state that "visual aesthetics is not important" and that "benefit is crucial, not the appearance".

Lecturers' perspective from the semi-structured interviews

The lecturers agree that there is no clear benefit for the students until the badges are established in the professional world, because otherwise the badges have no personal benefit. The descriptions of the badges must be very precise and transparent. In addition, the effort required to obtain a badge must also be clearly visible in the badges. The gamification aspect is regarded as good by the interviewees, as it may motivate students to become actively involved in the course. The lecturers only have to invest in the creation and design of the badges, after which the work is made easier. The design should be appealing, especially with regard to job applications. However, it is also noted that design is always a matter of taste. The interviewees do not see any specific data protection risks, but they do advocate providing sufficient information for the students.

Conclusions and outlook

Our findings demonstrate that badges are currently not relevant for most students in the context of our study. This is because the majority of students are freshmen who want to become teach- ers. The highly formalised and standardised application process for teachers in Germany does not allow the use of badges. Only very few students plan to use the badges in their own job applications. Few students can imagine using badges in social networks, although the answers suggest that students are unaware that social networks also exist in a professional context.

Regarding the transparency of badges, the general concept of the badges seems appealing to students. Regarding the motivation of students, the expectance was higher than the reality. This is evident from the decrease in motivation to use badges throughout the course of study. Nevertheless, we observed that 20% of students who stated to have no use for badges in applications, still see some benefits in them. If badges are to be introduced into a course, then this integration has to be meaningful for the actual course. In particular, badges should be referenced in the course directly, lecturers should internalise their use, and badges should be included in the entire course concept.

From the current semester (winter term 2018/19) onwards, the new curricula in schools will contain more digitisation components. This in turn will have an influence on teacher education at our university. We assume that this will increase the acceptance of badges in the future. In forthcoming studies, we want to focus on students in other study programs but teacher training. This sample group of students should have a more heterogeneous, less fixed career plan and the intention to present themselves and their competences to putative employers. In addition, we want to increase the group size to obtain more insight regarding the significance of our findings. Finally, we want to interview and observe more lecturers to get their point of view and gain more insight in their use of badge software.

If financial and personnel resources to build a badging system are available, McDaniel and Fanfarelli (2016) recommend to choose a custom-built badging system, which provides supreme flexibility. Along this route, we are developing a Web-based badge catalogue specific to our university. With such a custom system, we anticipate higher acceptance among students and lecturers. As part of the joint project "Open Digital Lab 4you", we are investigating the possibilities of applying Open Badges to support individual and collaborative learning in hybrid and augmented learning environments. We will concentrate on the use in the context of self- directed learning and serious gaming, on the acceptance regarding the documentation and certification of competences, and on the potential of learning analytics data as proof for the issuing of badges.

References

Carey, K. L.; Stefaniak, J. E. (2018). *An exploration of the utility of digital badging in higher education settings*. Educational Technology Research and Development 66(5), 1211-1229.

Cassidy, S.; Eachus, P. (2002). *Developing the computer user self-efficacy (CUSE) scale: Investigating the relationship between computer self-efficacy, gender and experience with computers*. Journal of Educational Computing Research 26(2), 133-153.

Ifenthaler, D.; Bellin-Mularski, N.; Mah, D.-K. (Eds.) (2016). *Foundation of digital badges and micro-credentials: Demonstrating and recognising knowledge and competencies*. Springer: New York, NY.

Lohr, L. L. (2007). *Creating graphics for learning and performance: Lessons in visual literacy*, 2nd ed. Prentice Hall: Upper Saddle River, NJ.

McDaniel, R.; Fanfarelli, J. R. (2016). *Evaluating design frameworks for badges: A case study and comparison analysis of two types of digital badging systems*. In: Muilenburg, L. Y.; Berge, Z. L. (Eds.). Digital badges in education: Trends, issues, and cases. Routledge: New York, NY, pp. 176.

Muilenburg, L. Y.; Berge, Z. L. (Eds.) (2016). *Digital badges in education: Trends, issues, and cases*. Routledge: New York, NY.

Pädagogisches Landesinstitut Rheinland-Pfalz (2014). *Medien.Konzept.Kompetenz: Handreichung zur Me- dienkompetenzentwicklung für die schulische Praxis* (in German). PL-Informationen 8/2014, pp. 12.

Spannagel, C.; Bescherer, C. (2009). *Computerbezogene Selbstwirksamkeitserwartung in Lehrveran-staltungen mit Computernutzung* (in German). Notes on Educational Informatics – Section A: Con- cepts and Techniques 5(1), 23-43.

White, A. (2011). *The elements of graphic design*, 2nd ed. Allworth: New York, NY.

Wilson, B. G.; Gasell, C.; Ozyer, A.; Scrogan, L. (2016). *Adopting digital badges in higher education: Scoping the territory*. In: Ifenthaler, D.; Bellin-Mularski, N.; Mah, D.-K. (Eds.) (2016). Foundation of digital badges and micro-credentials: Demonstrating and recognising knowledge and competencies. Springer: New York, NY, pp. 163.

Wu, M.; Whiteley, D.; Sass, M. (2015). *From Girl Scout to grown up: Emerging applications of digital badges in higher education*. The Online Journal of Distance Education and e-Learning, 3(2), 48-52.

Welcome to Trans*RECO*Land

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Our presentation at *ePIC, the 16th International Conference on Recognition, Trust, Identity and their Technologies, in Paris, 26th October*, focuses on non-recognition of foreign qualifications, prior learning and transcultural values as the central migration issue of the new century in all post- industrial societies (UN 2016). It introduces a newly started EU-Strategic Partnership for setting up new standards for skill recognition of migrants in the field of Early Life Family Care (ELFC), using open badges as open, flexible and visionable recognition system and with the aim of creating a new job profile called Transition Mentor.

The project spans over 3 years from September 2018 to August 2021 and takes place in five different European countries: Austria, Finland, Germany, Kosovo and Switzerland. In each country, Higher Education Institutions and Research Organisations are collaborating with a local, small and/or social enterprise, either in the field of ELFC, IT-Technology or Social Welfare and Networking.

„Cognition precedes recognition" (Honneth 2010). With this statement in mind, the project seeks to tackle transition barriers and skill-mismatches faced by the migrants as early as possible in order to foster a more inclusive society and cohesive Europe. As early as possible means to start at the merely beginning of life – as empowering parental support from pregnancy to entering school (Health 2020, SDG 2016).

At present *Early Life Family Care* in various manifestations and running under differing terms (Early Childhood Intervention, Family Key Work, Intensive Family Care etc.) establishes itself under manifold conditions (in Family Centres, at Kindergarten, in Hospitals or Social Welfare institutions etc.) European wide as a *transitional intervention* whereby different disciplines and professions (midwifery, nurses, educators, social worker, psychologist, paediatricians etc.) operate together, pursuing the same three tasks:

- *Promotion* of developmental chances and health equity for children

- *Assistance* in cases where family and social resources are not sufficient

- *Protection* of children in case of danger and neglect.

Giving **all** children a healthy start in life is a current key topic in European countries, driven by international and national policies (UN, WHO, EU). But especially migrant/refugee families and their children constantly fall through the cracks, while their potentials, needs and wishes stay more than merely unrecognised and unaddressed. (Eurydice 2014, WHO 2013)

Particular in the fields of *Early Family Care* most European countries have been relatively unprepared to deal with growing migration, few have formulated policies needed to make immigration a healthy and socially productive process. Therefore ELFC-services are not well equipped to respond adequately and the degree to which migrants can access health and social care often varies significantly, related to status, native culture and individual life conditions. Refugee families are a highly vulnerable group, often having higher rates of stillbirth and neonatal and perinatal mortality compared to the respective majority population. The difficulties to achieve a seamless *transition* for all maternity cases are particularly high for migrant woman. Conflicting situations are increasing due to experienced traumatisation during war, expulsion, escape and a hindering odyssey. Still migration experiences are chaperoned by exclusion experiences, such as racism, ethnic violence and discrimination – mainly in migrant's *transition* from their left behind home-countries to their new, often less hospitable host- countries. (Kühner, Paulus 2018)

The migrants and refugees in the ELFC sector are in a unique situation, since they are going through double-layered, namely two *transitions* simultaneously: both arriving in their new target country, and entering parenthood. With growing mass migration, the amount of pregnant migrant women arriving in Europe is increasing and with it, their heightened vulnerability is becoming more apparent. Perinatal and neonatal morality rates among migrant women have increased and a healthy and safe phase of early childhood is particularly important when it comes to further possible life-long risks. The youngest refugee children require special attention, but they are commonly forgotten (Liebig, Tronstadt 2018; SDG 2016).

In the ELFC-sector in its current state there is, on one hand, a clear skill shortage in the transcultural knowledge and on the other hand, a lot of unused potential – that of the migrants and refugees themselves. ELFC knowledge is covered, barely spoken: colonialised by Western and Eurocentric concepts. *Other,* mainly eastern and/or non-developed countries concepts and values of living, raising a child, being a family, parenting patterns, bonding, attachment and belonging are discriminated, devaluated, marginalised and/or excluded (Klein 2018, Said 1993).

In order to gain access to this unused potential, the project follows a paradigm shift: by using Participatory Action Research (PAR). For PAR the primary underlying assumption is that participation of those, whose *work* or *life* are the subject of the study fundamentally affects all aspects of the research. The engagement of these people is the hallmark of PAR, recognising the value of each person's contribution to the co-creation of knowledge. Consequently, this means that the aim of the research includes two perspectives—that of science and of practice (ICHPR 2013).
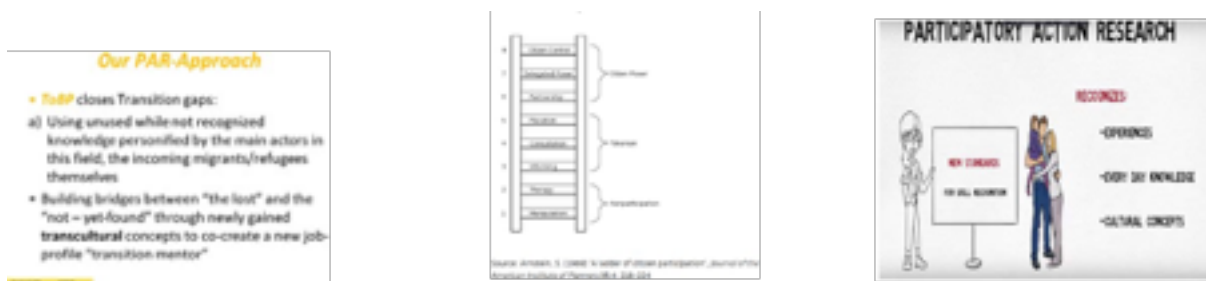
PAR puts CO-CREATION and with it RECOGNITION into practice, giving normally marginalised groups an active role and voice to - in our case, ensure successful "transitioning" processes. It is not "performed on" people as passive subjects providing "data" but "with" them, as main experts of their own cases. Doing so PAR removes transition barriers and closes transition gaps, overcoming a limited perception, which claims to understand the *other* from an imperial universalising, colonising and excluding western point of view, tinting our outlook.

Within the framework of PAR we are using the *Case Study-Approach*. Case Studies typically examine the interplay of all extracted, relevant variables in order to provide as comprehensive an understanding of a phenomenon as possible.

Our Case Studies' focus lies on hidden transdisciplinary and transcultural knowledge, on transcending transprofessional and transcultural barriers. The Case Studies also serve as digitalised 'teaching cases', providing transcultural 'learning scenarios', being stored in ToBP's *Open Inventory.* Traditionally used in business studies and management training, Case Studies play an important role in practice-focused higher education. Through the examination of specific cases, learners are given the opportunity to analyse their own professional issues through the trials, tribulations, experiences, and research findings of others.
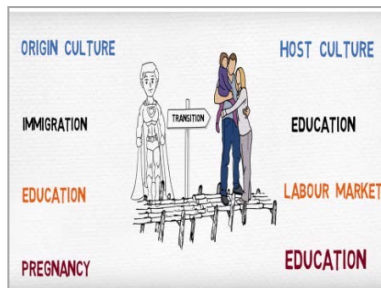
The envisaged transition mentoring (as early as possible in ELFC and as creditable as equitable in EDUCATION) bridges the culture of origin with the host countries through competence and capacity building right at the conflicting transition points. With that basic purpose ToBP enables successful transitions between immigration and education (for the children) and between education and labor market (for the adults).

Our main outcome will be a Transcultural Open Badge Platform (ToBP), an open virtual validation and educational space to educate future Transition Mentors in the field of ELFC. Especially with our interactive Inventory of Transcultural Transition Cases we provide the opportunity for HEI and VET professionals to use *and* store developed teaching cases. The establishment of a European Social Network on Transition Mentoring completes the actions and guarantees sustainability.

The project's innovative approach coupled with newly developed open technology will result in long term benefits for marginalised groups in Europe and helps to strengthen social cohesion through transnational validation of migrant's knowledge, competences and transition skills. The well-being of human is due to its recognition of others.

Through improving cross border recognition of skills, competences and concepts of migrants in the field of Early Life Family Care in Europe, we hopefully start a sustainable movement that is transferable to other education and social sectors.

Figuratively speaking ToBP provides a so-called Trans*ReCO*Land, enabling barrier-free *Transitions,* providing *RECO*very and outlining *RECO*gnition for targeted groups, ranging from pregnant women, mothers, fathers, babies, toddlers to aspiring Transition Mentors.

For deeper insight, have a look at ToBP's video teaser: https://www.youtube.com/watch?v=nfMxSUWnh9A

Literature + Links

Case studies https://writing.colostate.edu/guides/guide.cfm?guideid=60; http://libguides.usc.edu/writingguide/casestudy

For educational purpose: http://casestudies.law.harvard.edu/the-case-study-teaching-method/; http://www.bu.edu/ctl/teaching- resources/using-case-studies-to-teach/

Eurydice 2014: Key Data on Early Childhood Education and Care in Europe –http://eacea.ec.europa.eu/education/eurydice/key_data_en.php

Health 2020. A European policy framework and strategy for the 21st century (2013) http://www.euro.who.int/en/health-topics/health- policy/health-2020-the-european-policy-for-health-and-well-being/publications/2013/health-2020.-a-european-policy-framework-and-strategy-for-the-21st-century-2013

Honneth, Axel 2010: Kampf um Anerkennung. Zur moralischen Grammatik sozialer Konflikte.

Frankfurt.

ICPHR 2013: International Collaboration for Participatory Health Research. Position Paper 1: What is Participatory Health Research? Version: Mai 2013. Berlin: International Collaboration for Participatory Health Research

ICPHR 2013: International Collaboration for Participatory Health Research (2013) Position Paper 2: Participatory Health Research: A Guide to Ethical Principals and Practice. Version: October 2013. Berlin: International Collaboration for Participatory Health Research.

Klein, Regina (2018): Kulturtheorien. In: Hans-Uwe Otto / Hans Thiersch / Rainer Treptow / Holger Ziegler (Hrsg.) Handbuch Soziale Arbeit. Grundlagen der Sozialarbeit und Sozialpädagogik. Ernst Reinhardt Verlag

Kühner, Angela; Paulus, Mareike (2018): Frühe Hilfen für geflüchtete Familien. Impulse für Fachkräfte. Herausgegeben vom Nationalen Zentrum Frühe Hilfen (NZFH) Köln

Liebig, Thomas; Tronstad, Kristan Rose (2018): Triple Disadvantages. A first overview of the integration of Refugee Women. https://ec.europa.eu/migrant-integration/librarydoc/triple-disadvantage-a-first-overview-of-the-integration-of-refugee-women?lang=en

Participatory Action Research: http://www.participatorymethods.org/glossary/participatory-action-research

Said, Edward (1993): A critical reader. Edited by Michael Sprinker

ToBP: https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2018-1-AT01-KA203-039332

SDG 2016: Sustainable Development Goals 2030. https://www.un.org/sustainabledevelopment/sustainable-development-goals/

WHO 2013: Early years, families and task groups Report. European review of social determinants and the health divide in the WHO European Region. (http://www.euro.who.int/pubrequest).

Digital Open Badge-Driven Learning - Practical Applications to Support Emerging Ecosystems

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Abstract

There is a growing demand for economically effective accreditation practices that respond individually to local challenges and unique professional needs. Digital open badges offer to inform and improve learning outcomes, but also to scaffold and assess learning, thus permitting efficient use of learning analytics and inspiring gamification that supports consistent competence development as a continuum. This conference paper summarises the latest research concerning digital open badge-driven learning, and related development of assessment practices and digital open badges.

The entity of digital open badge-driven learning includes learning materials, badge criteria, instructional badging, scaffolding and peer support. The process model of digital open badge-driven learning is grounded on the badge constellation of competences. This summary offers insights and examples of applying the competence-based approach, digital open badges and gamification in professional development to meet teachers' personal needs for their working lives. In addition, it represents the current state of emerging ecosystems related to open badges in Finland.

Keywords: Digital Open Badges, Learning Ecosystems, Competence-based Approach, Motivation, Gamification, Professional Development

Introduction

In the future, digital open badges can be integrated into different studies in order to support the identification and recognition of required competences. The badge constellations include different badge families from a variety of degrees with varying challenges. The open badge management system allows one to acquire competences in formal, non-formal and informal studies. Skills and knowledge may be recognised in small fractions as well as in large sets. Badges describe achievements in greater detail, complementing degree certificates and transforming curricula into personalised degree programs. The process will enable multidimensional dialogue between badge earners, employers, educational institutions and education developers (Brauer, Ruhalahti, & Pakanen, 2018). The criteria for the future skills and knowledge are developing and evolving while staying compatible with the nationwide administration and learning management systems. A common European standard allows one to link badges acquired from different places using the International Europass of Life-Long Learning. Badges offer to inform and improve learning outcomes, but also to scaffold and assess learning, thus allowing efficient use of learning analytics. The student is in charge of his/her own learning process, thus scaffolding them just-in-time instead of just-in-case. Meanwhile, the flow of learning is supported by inspiring gamification. (Brauer, 2019, p. 91)

The narration above describes the path towards advanced digital learning ecosystems and blockchain technology in Finland represented in my recently published doctoral dissertation of "Digital Open Badge-Driven Learning - Competence-based Professional Development for Vocational Teachers" (Brauer, 2019). None of the above illustrates possible future scenarios, but all of the presented issues relate to on-going or upcoming development projects.

The eident change in the paradigm of continuing professional development (Kools & Stoll, 2016) necessitates supportive technological and digital pedagogical models. The current development and research related to digital open badge-driven learning (Brauer, 2019; Brauer, Kettunen, & Hallikainen, 2018; Brauer, Korhonen, & Siklander, 2019; Brauer, Siklander, & Ruhalahti, 2017; Brauer, Ruhalahti, & Hallikainen, 2018) contributes to the educational discourse on competence-based approaches, assessment and professional development. Moreover, the recent findings allow a definition of the process of badge-driven learning, offer to identify open badge management platforms as new learning environments, and suggest an application to design badge-driven learning. The challenge to activate teachers' professional development draws heightened attention to digital badging and gamification in educational contexts. In addition, the process approach brings to the fore the significance of customisation and personalisation of study paths in order to meet unique professional needs. Digital open badges offer substantially support the competence-development continuum of professional growth in the contexts of vocational teacher programs, professional development and higher education. (Brauer, 2019)

Emerging Digital Learning Ecosystems in Finland

Different Finnish educational institutions and training providers have been applying digital open badges in learning processes. Teacher trainers of vocational teacher programs (Isacsson, Stigmar, & Amhag, 2018), are in charge of the pre- and in-service training of professional teachers working in vocational education and training (VET). In Finland, they have been the first to serve the educational reform and to see the effects of digitalisation on different disciplines (Brauer, 2019; Koramo, Brauer, & Jauhola, 2018). As a focus group piloting digital open badge-driven learning, their experiences, views and ideas are more than noteworthy. In practice, digital open badges offer to inform and improve both professional development and professional knowledge constructions to develop different competences.

It is essential that the standards and guidelines are developed on a national and European level; however, to serve the students, trainers need to learn how to apply the competence-based approach in practice and further develop their digital pedagogical competences and practical applications. The following chapters explain the current state-of-the-art related to open badges in Finland originating from the significant success of the first (massive open online) badge-driven programme of continuing professional development (CPD) for VET teachers and the national initiatives of professional development following the most advantageous lessons learned in the past five years.

Learning Online – Professional Development for Vocational Teachers

In 2014, two schools of professional teacher education (Oulu University of Applied Sciences and HAMK University of Applied Sciences) joined forces with the VET provider Omnia, the Joint Authority of Education in Espoo. Together, partners sought to restructure the CPD to design a competence-based professional development program (PDP) that would support teachers in building working life ICT skills and knowledge.

As as result they co-created Learning Online PDP - a gamified, open badges-based MOOC (Massive Open Online Course). The Learning Online aims to support VET teachers in applying new technologies and strategies to teaching and learning in online, hybrid and face-to-face learning environments (Brauer, Siklander, & Ruhalahti, 2017). In Learning Online, digital open badges offer novel possibilities in identifying and recognising digital pedagogical competences independent of how they were acquired. The design considers several other aspects of modern cultures in the 21st century, including digitalisation, the meaningful use of gamification in learning and public sharing of expertise in order to support shared learning within work communities. The Learning Online concept was built during an OsaOppi-project funded by the Finnish National Agency for Education (EDUFI) in 2014 and has been in development ever since.

As the scheme of continuing professional development should reflect the sum of competences required from teachers (Day, 2017), the foundation of the PDP rests on competence criteria following the national guidelines (Ope.fi) adapted from UNESCO's ICT-CFT (UNESCO, 2011). As different digital pedagogical competence frameworks seek to support teaching personnel, in Learning Online, the three successive stages follow a level structure: SoMe-Novice, SoMe-Expert and SoMe-Developer (I, II and III, SoMe referring to Social Media). The levels refer to skill sets of personal development, shared expertise and strategic development on the organisational level.

One cornerstone of the design involved creating an educational setting that would encourage the participants to apply acquired skills and knowledge immediately in practice (Brauer, Kettunen, & Hallikainen, 2018). In Learning Online, digital open badges visualise the requisite skill-set levels in a way that allows the participants to plan and customise their personal study paths (see also Brauer, 2019, pp. 36-39). The participants apply for competence-based digital badges by providing the required evidence of the competence in question. The assessment process is transparent and egalitarian as teacher trainers from different schools of professional teacher education collaboratively facilitate the application and issuing process in the open badge management system (Open Badge Factory). Scaffolding is provided related to the remediation and rejection of badge applications. Participants are also engaged in a Facebook-based study group.

The original aim of the Learning Online initiative was to develop inspiring in-service training for vocational teachers by implementing new methods of easy-access online learning. In Learning Online, learning materials and badges are easily accessible 24/7 online and open to anyone interested in developing digital pedagogy and vocational training. All contents are openly licensed with Creative Commons. Themed learning materials supplement instructional badge-criteria and are tagged for different search options. One purpose of the initial pilot was to offer an economical example of an open online education implementation designed by average teacher trainers without specific technological expertise (such as coding skills) while using free online products and services. The Learning Online landing site

is simply a free Wordpress blog (http://www.oppiminenonline.com/), and the tools used to monitor learning were built from different gadgets available on the site and Google tools, such as Forms.

The working group also was keen on applying gamification in online learning. In Learning Online, digital open badges represent a main tool of the game design (Brauer & Siklander, 2017; Deterding, 2015). After thorough research and comparisons between different technical settings, designers settled on Mozilla Open Badges and Open Badge Factory to power the game engine of Learning Online. Badges visualise the requisite skill sets levels: "I-III...bronze, silver and gold and are earned by achieving 10, 25 and 45 badges, respectively" (Stockley, Lius, & Brauer, 2017, n. p.). Each basic badge belongs to a constellation of similarly-themed badges encouraging the teachers to continue to develop their competences and reach the next skill set level. Further, the design aimed to support a community experience and inclusion in terms online study groups and competition between locational teams. A live leaderboard is displayed on the site to motivate competitors "to go the extra mile" while first place competitors seek to keep their lead (Stockley et al., 2017, n. p.). Badges also provide a chance to promote a meaningful learning experience; sense of community, and the experience of inclusion, equality (Mäki et al., 2015).

Over the years, the project grew to provide an open access educational setting open to anyone interested in developing vocational education and training, teachers' ICT-competences and digital open badging. Since 2015, badges have been piloted in professional teacher education qualification programs for VET pre-service teachers, and the results speak for themselves. By January 2019, users have applied for (and received evaluations for) 20229 Learning Online Badges. 1835 applications (~9%) were rejected, 1562 applications (~9%) were pending and teacher trainers have guided these applicants towards the intended learning outcomes. The acceptance rates (where the badge receiver transfers the badge to a badge repository) are currently at 92%.

The goal was to develop the use of open badges as an accreditation of teachers' ICT-competence development and to execute an inspiring form of gamification. The program exceeded all intended learning outcomes in the first year both in terms of quantity and quality. Moreover, the PDP was awarded the 2015 eEemeli Quality Prize in an annual eLearning competition organised by the Association of Finnish eLearning Centre (https://www.eoppimiskeskus.fi/en/) for improving the quality of eLearning operations and activities in Finland. Obviously, digital open badges have become a successful tool in Finland for fostering vocational teachers' professional development.

Teacher's Badges Initiative

Interest in badging shows no sign of slowing down in the immediate future as the National Initiative of Teacher's Badges follows in the footsteps of Learning Online by offering to create and establish a national digital badges system to support the recognition and acknowledgment of professional competences for vocational teachers (HAMK, 2018, n.p.). The project is run on a national level within several institutions of higher education aimed to establish a formalised recognition ecosystem supervised by the Ministry of Education in Finland and to explore further the broader sociotechnical contexts in which the badge constellations could exist.

The great autonomy of Finnish teachers highlights their responsibility to take care of their own competences. The skills and knowledge acquired during professional teacher training

(60 ECTS credits to gain a teacher's qualification) are insufficient for the lifetime career of a vocational teacher. However, the current methods of continuing professional development do not inspire teachers to continually advance their own knowledge and skills for their professional lives (Kools & Stoll, 2016).

To ensure teachers' professional development, their training should be considered a competence-development continuum supporting professional growth (Mahlamäki-Kultanen et al., 2014). The challenge in opening up such a continuum in continuing professional development rests in how to facilitate pre-service teachers in creating a personal plan for CPD – a plan towards motivating them to develop their competences as future in-service teachers and to strengthen their self-motivation as well. The Teacher's Badges Project aims to create and establish "a national digital badges system to support the recognition and acknowledging of professional competences of vocational teachers during their teacher studies as well as their entire professional career" (HAMK, 2018, n.p.).

Badges to Meet the Requirements of Working Life

Digital open badges encapsulate the individual learning experience and tie performance and achievement to documentation and evidence of learning (Gamrat, Bixler, and Raish, 2016; Reid, Paster & Abramovich, 2015; Ahn, Pellicone & Butler, 2014). Respectively, digital open badges offer to support a shared understanding of the required and desired competences between different stakeholders.

The Chips for Game Skills project (Brauer, Ruhalahti, & Pakanen, 2018) aims to define the criteria for future skills in the gaming industry and to cross the boundaries of educational institutions in order to provide badges based on the needs of working life as proof of the required level of mastery in specific areas of expertise. The badge-constellation of competences is focused to promote the identification and recognition of working life opportunities (needs of working life) while helping the student to plan the development of competences (optional study paths) as a future professional of the gaming industry.

A new nationwide project of 'Work-Integrated Pedagogy in Higher Education' (WORKPEDA) aims to pilot digital open badges in academic universities and higher education contexts to improve students' working life competences and to enhance alumni cooperation. WORKPEDA project offers to build the first national pilot of digital open badge-driven learning within the problem solving studies of Learning, Education and Technology (LET) master's programme of University of Oulu in close connection with the latest research. Working-life connections are highlighted throughout the master's studies. The aim is to determine the concept of desired competences in relation to students' individual interest and recognised needs of working life, and define the concept of desired competences in digital open badge-driven learning and the competence-based approach based on students' point of view.

Further, several projects are developing and evolving, including a revision of the Europass framework, the New Europass and a standard to allow European-wide administration and learning management systems (European Union, 2018). The New Skills Agenda for Europe invites "member States, social partners, industry and other stakeholders to work together on ten actions to improve the quality and relevance of skills formation, to make skills more visible and comparable and to improve skills intelligence and especially information for better career choices" (European Union, 2018, p. 2). In Finland, the CompLeap Project (CSC, 2018) is answering the call to seek out better career choices with gamification. The

list of related projects could continue indefinitely – change is evident. We Finns are even building applications of AI in the public sector (Ministry of Finance, 2018) to serve digital learning ecosystems that allow learning omnipresent.

Advanced Digital Badging to Support Learning

It is essential that the ecosystems and guidelines of such are developed on a national and European level; however, to serve the students, trainers need to learn how to apply the competence-based approach in practice and further develop their digital pedagogical competences and practical applications. Official guidelines are not always the best tool for individuals seeking to identify personal competences or to comprehend the needs of development in practice. Based on five years of experience in the development of a competence-based PDP and research into digital badging, I suggest to explore and apply digital open badges in different disciplines.

The main research question of my doctoral dissertation addressed how digital open badges structure the gamified competence-based learning process in the continuing professional development of vocational pre- and in-service teachers. The study results allowed me to identify the different qualities of digital open badge-driven learning and describe the overall structure of the badge-driven learning process (Figure 1).
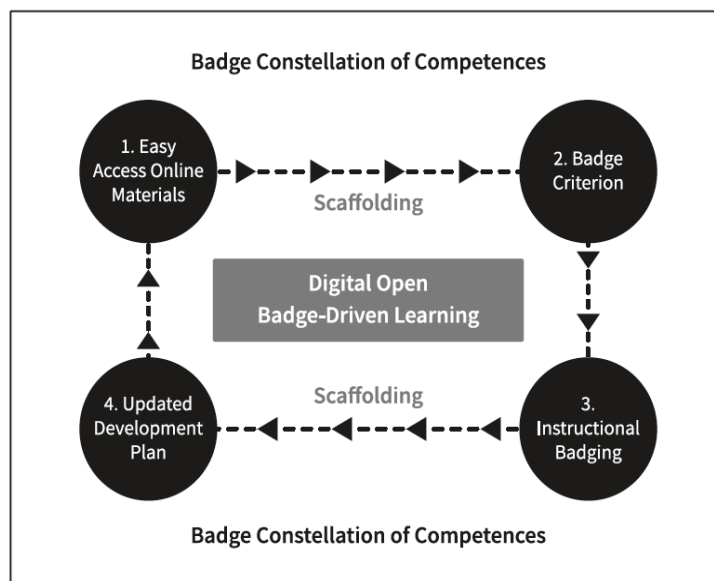
Figure 1. The identified structure for the gamified digital open badge-driven learning process (Brauer, 2019, p. 75).

The study findings have allowed me to reach a definition of digital open badge-driven learning as a competence-based learning process grounded on the badge constellation of competences.

The process includes identifying and recognising different competences using digital open badges. The entity of digital open badge-driven learning involves learning materials, badge criterion, instructional badging, scaffolding and peer support. The digital open badge-driven learning process supports the gamification of professional competence development (Figure 1). Further, the triggers of the learning process are more versatile than the triggers of

gamification or online-learning alone. In terms of digital open badge-driven learning, the prompting trigger for learning might be realised at different stages of the learning process in various forms, including community building and collaboration facilitated by gamification, scaffolding or criterion-based challenges.

The main principles of digital open badge-driven learning allow focusing the design model to meet unique personal needs, progression towards peer and community learning, and the recognition of excellence within working communities. Previous research related to digital open badge-driven learning has focused on the initial process of digital badging, the essence of issuing and receiving badges (Hrastinski et al., 2018). However, digital open badges offer to recognise "the expanded landscape of learning" (Grant, 2014, p. 5) and empower alternative ways of acquiring knowledge and skills (Brauer et al., 2017; Devedžić & Jovanović, 2015; Knight & Casilli, 2012). Respectively, the effective badge design is complex by nature with different mechanics and psychological factors affecting the identification and recognition of competences and eventual earning of badges (McDaniel & Fanfarelli, 2016).

Knight and Casilli (2012) describe the scale of customisation required for such learning processes as a connected learning ecology serving as a bridge between contexts and alternative learning channels. The emerging world of digital badging is growing as anyone can create badges and recognise the achievements of others (Mozilla Open Badges, 2017); consequently, there is strong demand for guidelines and digital pedagogical models for educators to follow and apply. In the future, more research is needed to improve flexible professional competence development and a trustworthy way to identify, validate and recognise different competences.

The original study was published in January 2019 in

Brauer, S. (2019). Digital Open Badge-Driven Learning –Competence-based Professional Development for Vocational Teachers (doctoral dissertation).

References

Ahn, J., Pellicone, A., & Butler, B. (2014). Open badges for education: what are the implications at the intersection of open systems and badging? *Research In Learning Technology, 22*.http://doi.org/10.3402/rlt.v22.23563

Andersson, P., & Köpsén, S. (2015). Continuing professional development of vocational teachers: participation in a Swedish national initiative. *Empirical Research in Vocational Education and Training, 7*(7). https://doi.org/10.1186/s40461-015-0019-3

Brauer, S. (2019). Digital Open Badge-Driven Learning –Competence-based Professional Development for Vocational Teachers (doctoral dissertation). Acta Universtitatis Lapponiensis 380. http://urn.fi/URN:ISBN:978-952-337-110-1

Brauer, S., Kettunen, J. & Hallikainen, V. (2018). "Learning Online" for vocational teachers - Visualisation of competence-based-approach in digital open badge-driven learning. *The Journal of Professional and Vocational Education: Vocational education and training in the Nordic countries, 20*(2), 13-29.

Brauer, S., Korhonen, A-M. & Siklander, P. (2019). *Online scaffolding in digital open badge-driven learning*. *Educational Research*. http://doi.org/10.1080/00131881.2018.1562953

Brauer, S., Ruhalahti, S., & Hallikainen, V. (2018). Digital professional learning: triggers in an online badge driven process. *Education in the North, 25*(1-2), 64-86. https://www.abdn.ac.uk/eitn/journal/545/

Brauer, S., Ruhalahti, S., & Pakanen, L. (2018). Digitaaliset osaamismerkit - merkillä on väliä [Digital open badges – Badges do matter]. Retrieved from https://pelimerkit.metropolia.fi/2018/05/07/digitaaliset-osaamismerkit-merkilla-on-valia/

Brauer, S. & Siklander, P. (2017). Competence-based assessment and digital badging as guidance in vocational teacher education. In H. Partridge, K. Davis, & J. Thomas (Eds.), *Me, Us, IT! Proceedings ASCILITE2017: 34th International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education*. 191-196.

Brauer, S., Siklander, P. & Ruhalahti, S. (2017). Motivation in digital open badge-driven learning in vocational teacher education. *Ammattikasvatuksen Aikakauskirja, 19*(3), 7–23.

CSC. (2018). A learner centered digital ecosystem of competence development. Retrieved from https://www.compleap.eu/

Devedžić, V., & Jovanović, J. (2015). Developing Open Badges: a comprehensive approach. *Educational Technology Research & Development, 63*(4), 603-620. http://doi.org/10.1007/s11423-015-9388-3

Deterding, S. (2015). The lens of intrinsic skill atoms: A method for gameful design. *Human - Computer Interaction, 30*(3-4), 294–335. http://doi.org/10.1080/07370024.2014.993471

European Union. (2018). Decision of the European Parliament and of the Council on a common framework for the provision of better services for skills and qualifications (Europass) and repealing. Decision No 2241/2004/EC. Retrieved from http://data.consilium.europa.eu/doc/document/PE-70-2017-INIT/en/pdf

Gamrat, C., Bixler, B., & Raish, V. (2016). Instructional design considerations for digital badges. *Digital Badges in Education: Trends, Issues, and Cases*, 71–81.

Grant, S. (2014). What counts as learning. DML Research Hub. Retrieved from http://dmlhub.net/publications/what-counts-learning/

HAMK. (2018). Open Merkit – Teacher's Badges. Retrieved from HAMK University of Applied Sciences Webpage http://www.hamk.fi/openmerkit.

Hrastinski, S., Cleveland-Innes, M., & Stenbom, S. (2018). Tutoring online tutors: Using digital badges to encourage the development of online tutoring skills. *British Journal of Educational Technology, 49*(1), 127-136. https://doi.org/10.1111/bjet.12525

Isacsson, A., Stigmar, M., & Amhag, L. (2018). The content, challenges and values that form Nordic Vocational Teacher Education. *The Journal of Professional and Vocational Education: Vocational education and training in the Nordic countries, (20)2*, 38-50.

Knight, E., & Casilli, C. (2012). Mozilla Open Badges. In *Game Changers. Education and information technologies* (pp. 279-284). EDUCAUSE. Retrieved from https://net.educause.edu/ir/library/pdf/pub7203cs6.pdf

Kools, M., & Stoll, L. (2016). What Makes a School a Learning Organisation?. *OECD Education Working Papers, 137*. Paris: OECD Publishing. https://doi.org/10.1787/5jlwm62b3bvh-en

Mahlamäki-Kultanen, S., Lauriala, A., Karjalainen, A., Rautiainen, A., Räkköläinen, M., Helin, E., Pohjonen, P., & Nyyssölä, K. (2014). Opettajankoulutuksen tilannekatsaus. [Status Report of Teacher Training] (2014:4). Retrieved from http://www.oph.fi/download/163626_opettajankoulutuksen_tilannekatsaus.pdf

McDaniel, R., & Fanfarelli, J. (2016). Building better digital badges pairing completion logic with psychological factors. *Simulation & Gaming, 47*(1), 73–102.

Ministry of Finance. (2018). Government services entering the age of artificial intelligence. Preliminary study on the Aurora national artificial intelligence programme. https://vm.fi/artikkeli/-/asset_publisher/viranomaispalvelut-tekoalyaikaan-esiselvityskansallisestatekoalyohjelmaaurorasta?_101_INSTANCE_AOvUVthvfE4u_languageId=en_US

Mozilla Open Badges. (2019). *Discover open badges*. Retrieved from https://openbadges.org/

Mäki, K., Vanhanen-Nuutinen, L., Guttorm, T., Mäntylä, R., Stenlund, A. & Weissmann, K. (2015). *Opettajankouluttajan osaaminen - Ammatillisen opettajankouluttajan työn tulevaisuus 2025* [Teacher Trainer's Competences - The Future of Professional Teacher Education 2025] (Raportti 12.1.2015). Ammatillisten opettajakorkeakoulujen OKO-hanke.

Reid, A. J., Paster, D., & Abramovich, S. (2015). Digital badges in undergraduate composition courses: effects on intrinsic motivation. *Journal of Computers in Education, 2*(4), 377–398.

Stockley, P., Lius, E., & Brauer, S. (2017). 'Learning Online' introduced open badges to teachers' professional development. [Badge News]. Retrieved from Open Badge Factory Website https://openbadgefactory.com/badgenewsobfcase7/.

UNESCO. (2011). UNESCO ICT Competency Framework for Teachers. Retrieved fromhttp://unesdoc.unesco.org/images/0021/002134/213475e.pdf

Transversal skills and digital certifications

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Our University is involved in the development of students' transversal skills. In this respect when the Italian Ministry of Education issued the 2016-18 three-year program, and required that universities adopted one of various guidelines, our University chose "modernisation of study and research environments, innovation of teaching methods", and "interventions for strengthening students' soft skills".

"Transversal skills" are a topic of great importance, and require the utmost attention in order that the teaching staff and the student representatives appreciate their value and share their implementation methods.

What are transversal skills?

The "transversal skills" and the "key skills" are considered indispensable for the success of a graduate, regardless of his/her subject area. To get an idea of these skills we can refer to the *European Skills, Competences, Qualifications and Occupations* (ESCO) website.

In the macro-area "Transversal skills and competences", four areas are listed:

1. Application of knowledge

2. Attitudes and values

3. Social interaction

4. Thinking

Each area is expandable to two or three levels of depth. At the last level there are more than 70 transversal skills.

To these we should also add "communicating in foreign languages" - a transversal skill much appreciated by companies even if, due to the great relevance attached by Europe, a few years ago it was reclassified in ESCO in a separate macro-area (languages).

For this intervention we distinguish the transversal skills in "already taught", "directly teachable", and "supportable" in the university, explaining this distinction with some examples:

A. The "application of knowledge" area includes among its sub-areas " numeracy and mathematics", which includes the transversal competence "carry out work-related calculations": this is a skill - however transversal - that each course of study should already contain among its learning objectives, and enhance [evaluate] it in ECTS (European Credit Transfer System). We call this kind of skills "already taught", to mean that they should already be present in university study courses, and can be learned thanks to direct and traditional teachings;

B. In the "application of knowledge" area, in the "working environment" sub-area, there are transversal competences such as "support cultural diversity" and "support gender equality". While some courses of study, such as those of the education or sociological

areas, already dedicate educational activities to these skills, many others do not. We call these skills "directly teachable" in university courses, with traditional teaching methods. It should be noted that this important type includes foreign languages and digital / computer culture;

C. Finally, there are skills such as "think creatively", "make decisions", "develop strategies to solve problems" (in the "thinking" area), or "accept constructive criticism", "motivate others", "work in teams", "persuade others" (in the "social interaction" area), or even "demonstrate curiosity", "demonstrate enthusiasm", "meet commitments" (in the "attitudes" sub-area of the "attitudes and values" area). These are "skills" at the boundaries between the skills acquired early in development, and personality characteristics; in both cases they cannot be taught directly, but stem (derive) from the diversity and plurality of experiences, interests, and social interactions that the individual enjoyed during growth, from infancy to late adolescence. New experiences in adulthood, including university experiences, can certainly refine (enhance) and reinforce these characteristics: but not through traditional teachings that have as their direct object the characteristic itself. For example: a teaching that explains what creative thinking is, does not help to think creatively, and a teaching on how to "demonstrate curiosity" can - if anything - help to simulate curiosity, but does not develop authentic curiosity.

The development of these characteristics is indirectly supported by the universities: not through the themes of the teachings, but thanks to the relationships established between lecturers and students, of the students among them, and to the extracurricular experiences that we offer to the students. We call these "supportable" skills.

Problematic elements

Here we deal with the problematic aspects that affect the nature and function of our training offer and the role and profile of our lecturers and students. There are no particular problems for the "already taught" transversal skills, except to continue to monitor and evaluate the courses of study, to make sure that they really are taught. Instead, there are problems for both the "directly teachable" and "supportable" skills".

Problems related to "directly teachable" skills

In the Italian system the ECTS dedicated to transversal skills are few. For example, for the three– year degree for which are needed 180 ECTS, there are only compulsory courses in foreign languages (from 3-6 ECTS) and digital/computer culture (3 ECTS). It is not necessary to obtain ECTS for other transversal skills to graduate. Recognition of ECTS for other transversal skills is possible, but constitute very few ECTS (2-3).

It is very difficult to convince the lecturers responsible for the courses to sacrifice ECTS to open large curricular spaces associated with ECTS reserved for educational activities in favour of transversal skills. In fact, there are few ECTS, disciplinary subjects are many, and each lecturer is understandably linked to the subjects he or she teaches, and tends to consider them "absolutely essential" for the training of any future graduate in his/her discipline. It is difficult to eliminate for example, 36 ECTS of three or four disciplinary subjects to dedicate them to "English language B2", "MOS – Microsoft Office Specialist-certification for excel®", "principles, values, and rules of gender equality", and the like (in the Finnish university system 70 ECTS are set obligatorily aside [dedicated] for Transversal

skills out of the 180 ECTS for the three-year degree). Student representatives are largely in agreement with their lecturers: most of them want ECTS to be - mostly - directly associated with the thematic area they have chosen to study. Changing these beliefs in the direction of a training less oriented to disciplinary details and more oriented to the labor market requires a slow process of cultural transformation.

Problems related to "supportable" skills

There are at least two orders of problems for "supportable" skills. The development of these skills is supported (a) by the teaching style used by our lecturers, and (b) by the participation of our students in a wide range of activities not directly related to the themes of their studies and difficult to anchor to ECTS, if not in a very limited measure.

With regard to (a): the great majority of Italian lecturers graduated between the second half of the '80s and the first of the '90s of the Twentieth century, and so were formed before the so-called digital divide. They are thus part of the so-called digital immigrants category, as opposed to that of the digital natives in which most of our students fall. They were mostly trained with traditional frontal lessons and by studying in traditional textbooks. Many lecturers, with the exception of some in the pedagogical area, never benefited from specific teacher training. They learned on the job, with the example and the good advice of their professors of the past. For this reason they mainly use frontal teaching and traditional textbooks, and consider them "the teaching method", or in any case "a good method". So they are not familiar with, and often do not want to use other teaching styles more focused on: 1) greater interaction, both between lecturers and students and between students, both in presence and on digital platforms; 2) practice-guided learning, with simulations, and extensive use of exercises and problem solving; 3) a heterogeneous corpus of study, not limited to texts, but including games, podcasts, MOOC extracts, videos and other multimedia products derived from multiple sources with the active help of students.

These teaching methods and materials are more capable of capturing and retaining the attention of digital natives than books and lectures. Furthermore, they can improve access to training by atypical students. In order to help lecturers to develop more suitable teaching methods for our digitally native students, we are furnishing our classrooms with all the necessary integrated digital equipment.

To learn how to use these methods effectively, and to change our attitude towards them, we need faculty development courses (that are being created in different universities) and appropriate training for the suitable use of integrated learning spaces. In others words, to support some of the students' transversal skills the lecturers should go to lessons.

Here the first problematic aspect opens up: it is difficult to make these courses "compulsory" (apart from for newly recruited researchers); but, if not compulsory, how can we stimulate interest and motivate lecturers to do them, since they require time and effort, and do not involve direct benefits for their career?

The second problematic aspect concerns the participation of students in activities not directly related to their studies, and not associated with ECTS (unless in minimum quantity). Our students are already very - sometimes too - overworked. Typical students must attend classes and exercises, and study a lot; the little free time the students have left over is spent in the company of their friends and their digital devices (the two main activities in the free time of young people, according to various surveys). Most of them do not like to dedicate it to "cultural" activities, which, although not strictly "classical" are perceived as linked to their

university. For atypical students the situation is even more difficult: they have families to follow, jobs, disabilities that reduce the usability of some activities. We have developed a wide range of cultural, artistic and participatory activities which are a fertile humus for the development of "supportable" transversal skills. The problem is how can we convince students to devote themselves to these activities with continuity, commitment and more than very limited time. The experience, not only Italian, but European, is that only a fraction of the students - within 10% - benefits from these activities.

European dimension

The three problems identified (recognition of ECTS for transversal activities in the courses of study, training of the teaching staff in the use of innovative teaching techniques, involvement and participation of students in transversal activities useful for the development of their skills) are not only limited to Italy. Europe tries to address them with indications and guidelines. See, for example: the "European Standards & Guidelines for Quality Assurance" issued by the Ministers of the European Higher Education Area (EHEA) in 2015, in particular in p.6 second paragraph; the political document issued by the last conference of Ministers EHEA (May 2018), inviting the full application of the 2015 guidelines for the use of the ECTS; the first of the ten principles for the improvement of learning & teaching published by the EFFECT project; the position paper of the European University Association (EUA), p.1 last lines; the recommendations document of Thematic Peer Groups EUA 2017, p.9 and later. By accepting these European recommendations, ANVUR, (The Italian national agency for university and research evaluation) with the TECO-T project (TEst of COmpetencies: Transversals), is developing three tests to measure the variation in the level of competence of our students between the first and final year of the three-year degrees in three transversal macro-areas: numeracy, literacy, problem solving.

Certifications through Open Badge

Here we do not examine in detail all the actions implemented by our university to reach the goals established by the government decree. It is sufficient to remember, as a prerequisite, that we have built a relatively wide range of cultural and training paths useful for "sustainable" transversal skills. We have prepared and started to provide optional faculty development courses for our lecturers and provided courses in foreign languages and digital culture on a digital platform that are free and accessible to all. We will focus on an instrument included in that project that has proved to be innovative, useful and successful: the certification through Open Badges of the skills acquired and qualifications.

Since ECTS are a "rare currency", it is not easy to associate with a significant number of ECTS the "directly teachable" transversal competences (paragraph 2.1), and since the students are not very motivated to follow, in the limited free time at their disposal, the activities and paths offered by the university for the development of "supportable" transversal competences (paragraph 2.2), we decided to adopt a new form of certification, not necessarily linked to the ECTS but connectible to them: a "common currency" released from the strict legal limits of the ECTS, and that can at the same time certify with all the authority of the university institution the activities carried out by the student and the skills he / she acquired. At the same time, in order to avoid a bureaucratic burden for our offices, and to make the certification flexible, transparent, and easily spendable on social media, that are so important for the networking activities of our students and graduates, we are oriented towards the Open Badge Mozilla, a form of digital certification that has been taking hold for

a few years. We refer to the BESTR website for the technical and functional introduction to the Open Badges.

Considering that, in 2015, using Open Badges for university training was a new idea, the Open Badges available in 2015 were not entirely suitable to perform the function we wished to give them. For example, they did not allow a two-way connection with student careers loaded into university management systems (in our case, the CINECA ESSE3 software). Luckily, in the same period in which these issues arose, we became familiar with the BESTR platform for the production and distribution of Open Badges developed by CINECA: the same developer of ESSE3. The collaboration with CINECA and BESTR proved immediately fruitful: the BESTR Open Badges have been enabled to communicate with ESSE3, so as to allow three fundamental operations:

A. If a competence or activity certified by an Open Badge is associated with ECTS in the student's study plan, when the student redeems his Badge (by clicking on the link sent to him by BESTR) the ECTS automatically is inserted into his/her career on ESSE3, with significant reduction of administrative work for our careers management offices;

B. When a student obtains and redeems a Badge issued and certified by the University that Badge and that activity are automatically loaded in his/her career so as to appear in the "other activities" section of the Diploma Supplement;

C. BESTR can extract student career data from ESSE3, such as the destination and ECTS collected by a student during their periods of residence abroad (example: the "International Student" Badge), or the grade average, the grade mark and his/her percentile compared to the graduates of the last three years, whether the student has graduated within the time allotted, and the abstract of the degree thesis for the Open Badge.

Results

The student representatives accepted the idea with enthusiasm from the first, seeing its usefulness as a possible form of recognition of their extracurricular activities and - their suggestion - also curricular; the lecturers, who initially did not attach much importance to the new forms of recognition, over time have learned to appreciate it - so much so that most of the production of new badges today takes place on the proposal of the lecturers themselves. Today, although the use of the BESTR Open Badge has spread as a "common currency" for curricular and extra-curricular certifications in other universities as well, Milano-Bicocca is still the University that has produced the largest number of Badges (143), and has provided the most to its students (over 10,000). Many are linked to linguistic certifications (from CEFR levels A1 to C1 of six languages, examples: English b2, Spanish c1) or computer science (example: AICA / UNIMIB badge for digital culture), which are typical examples of "directly taught" transversal competences. Many others, with a significant increase year after year from 2016 to 2018, were granted for participation in extracurricular activities useful for the development of supportable transversal competences (examples: iBicocca Platinum, Moot Court finalist, Volunteer Experience, orientation tutor). The results already achieved are:

1. The participation of students in the paths and activities for transversal skills has significantly increased: in 2016 we recognised 2538 Badges of that type, while in the

first eight months of 2018 we have issued 3021, an increase of 19% (which will be even higher at the end of 2018). So the students recognise the value of the Badges, and the presence of a Badge increases their motivation to follow those paths;

2. It is noteworthy that the students themselves asked for the development of the "Open Badge Degree" (over 1500 already issued): even if their degrees are already certified by the degree certificate itself and the Diploma Supplement, the students consider more "spendable" and "visible on the web" a certification officially released by the University through a Badge;

3. The man-hours required by our administrative offices for registration in the career of language tests and computer skills, now automated thanks to the association of the ECTS to the Badges for those skills, have been drastically reduced;

4. Several other Italian public universities, in the wake of the success achieved in Milano-Bicocca, have begun to recognise Open Badges with similar uses and goals;

5. the interest in the certification through badges has been gradually extended by the students to the lecturers: for example, one of the motivational factors with which we try to encourage lecturers to follow faculty development courses is the provision of official certifications through the Open Badge (Examples: Large classroom Teaching).

Possible developments

The construction of the Degree Badges, mentioned in the previous paragraph, has anticipated the indication contained in the political document of the conference of Ministers EHEA of May 2018, which underlines the importance of transparent, safe, machine-readable and easily transmissible digital certifications for the skills as regards the qualifications of our graduates. If issued by a large number of Universities, the Graduate Badges in the medium term could prove to be a useful European instrument for visibility, transparency, and mutual recognition of qualifications (combining - with different use and degree of detail - the Diploma Digital Supplement). In view of this possible development we are planning together with CINECA, for 2019, the next "evolutionary leap" of the Open Badges, registering them with BlockChain technology through the Cineca Open Ledger platform. If already in their current form the Open Badges are hardly falsifiable, once they are encrypted in BlockChain they will be virtually indestructible and inalienable certifications - like real digital currencies.

In the long run, the success and growth of the initiative depends on its diffusion: if students no longer from a few, but many Italian and European universities have their skills, extracurricular activities, and titles certified through an Open Badge, then the world of work will get used to seeking [looking for] - and requesting - these forms of certification in the initial phases of personnel selection for skills and qualifications (saving on the long times and costs that accompany these phases). In doing so, the companies and institutions that hire our graduates will begin to provide their endorsement to the certifications themselves, recommending those found valid, useful and truthful, and not recommending other less solid ones. In the long term this direct feedback from the world of employment to university degrees and certifications will bring a breath of renewal to the traditional concept of "reputation" associated with degrees from some universities (and less to those of others), transforming it in order to be able to react to the rapid changes that our society is going through; and can therefore contribute with an independent, not self-referential measure,

strictly linked to the needs of the stakeholders, to the evaluation of the teaching effectiveness of the universities.

Concl   usion

The efforts of our University to build an infrastructure to accommodate transversal competences in university teaching are well underway. Not only do we have flexible certification tools, integrated teaching spaces, faculty development courses, extensive offers of extracurricular courses; but also the slow process of attitude change has begun, both in lecturers and in students. Now more and more lecturers and students are beginning to consider them part of their academic commitments. However, in the near future we need to exploit the already provided infrastructures, directing our efforts towards the pervasiveness of the offer and the expansion of participation. It is necessary to break through the "10% ceiling" that in most of Europe seems to limit the number of students who make use of cross-training opportunities, and which we too have not managed to break. With 3021 Badges issued for the various activities from 1 January to 31 August 2018, we are at 9%. Europe insists on recognising ECTS, to a large and significant extent, for transversal competences. This means reducing the ECTS dedicated to disciplinary activities. The time is not fully ripe for a reform in this sense, in Italy at least. But the increase in awareness towards transversal competences, and the creation of infrastructures to support them, could, in just a few years, make the time such.

Blockchain & Education, some keywords, their link to education and the initiative to develop a sovereign and sustainable Blockchain compliant with our education values focusing on two innovations

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Some key words and concepts in the blockchain technology

Most experts of the blockchain use a specific vocabulary that is difficult for most people to understand, including distributed system (peer-to-peer, disintermediation), certification (or the common law notarization's system, which is more about issuing certified copies), ledgers, proof of work, token, governance…

Each of these words reflects some key concepts of human inventions. For example: one of the major human inventions is writing. And writing was invented 5000 years ago in order to record legal transactions. Ledgers and trusted third parties (authorized writers) were created -and still exist- to ensure legal certainty and avoid litigation. So too does the blockchain: each connected server possesses a copy of an immutable and secure ledger of legal transactions (distribution). Blockchain was conceived as an open source technology to ensure anyone could read the proof of transactions (transparency) in these records. This is still the case: almost every blockchain is open source.

Another example with the invention of currencies. The rise of human exchanges was -and still is- based on trust. Bitcoin was invented as an alternative currency following the financial crisis of 2008 that betrayed this trust, in order to propose a currency based on peer-to-peer decisions.

In blockchain technology, connected servers are in competition to resolve a complex mathematical problem (they are "mining"). The system is able to decide which server was successful and therefore, to certify the webpage (the block) containing a certain amount of transactions and to bind it to the previous page. The blockchain technology rewards this server with tokens for its successful contribution to a collaborative work (proof of work). No human intervention is required. This is a major informatics innovation.

The two major problems with blockchain technology identified by many experts are the questions of sustainability, identity in connecting and using the technology and the faculty to allow citizen to erase the personal data they do not wish to appear in the ledger. However, many researchers and companies are working already on addressing these questions.

Application of these principles in Education

In Education, these attractive and complex concepts have led to the identification of blockchain technology as an interesting solution to a few problems:

- **with regards to distributed and open ledgers**: retain shared records of all learning outcomes (diplomas, competences, diploma supplement, open badges…), in initial or

lifelong learning, on a lifelong basis. Any world citizen having studied at some point in Europe would be able to find a certified copy of his or her diploma at any stage of his or her life.

· **with regards to disintermediation**: empower teachers to recognise and award their students directly with something else than the diploma (disintermediation): credentials or open badges. Whereas credentials can be seen as higher education credits that, put together, will constitute a diploma, open badges can be considered as a more flexible way to recognise any skills and competences, even acquired outside formal institutions.

· **with regards to identity, open licences and reward of contributions in Open Educational Resources**: ensure the traceability of remixed open educational resources and reward the contributors thanks to the issuing of "credits" that could be used as proof of work for their carrier path.

The "Netflix" of Open Educational Resources (OER)?

The last use case has led the author of this article to conceive of a blockchain capable of certifying the intellectual property rights of teachers and researchers (and even students) bound to their professional identity. The idea is to create a global platform comparable to a "Netflix" dedicated to Open Educational Resources and subject to open licenses.

It could be tested on the 30 000 French OER that are documented, available, and that may be found through a single search engine.

It would of course be free for anyone to use, with the possibility of payment for commercial uses, in order to explore a sustainable model for OER.

In a sense, it would mimic a plagiarism software, tracking the legal use and reuse of OER.

It would also allow visualising a "family tree" of the uses and modifications of a resource, growing with the years.

Finally, application of blockchain technology would recognise and reward contributions to the OER movement. A sort of Open Badge / digital credit identifying the contributor and their contributions, easily embedded showable in curricula, serving as official proof in support of career paths.

The European Blockchain Observatory-Forum and initiative for Education

The blockchain use case identified by most governments and institutions in Education aims to create the distributed ledgers of diploma and competences.

27 State members of the European Union and Norway have set up a partnership on blockchain. This partnership has also identified the use case on certification of diplomas as an innovative public service to citizens. 2019 will should be the year to set up a global project in this regard.

In 2017, the French Ministry for Education and Youth set up a working group on Blockchain & Education at national level, based at the University of Lille. One of the objectives of this working group is to help test the sovereign and sustainable Blockchain developed within the IT system department of the European Commission.

Competence Frameworks and task fragmentation: Some reflections

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Introduction

This text is the result of a presentation made at the ePIC conference and focuses on a point that I consider essential, namely the tensions between recognition modes based on frameworks, most often designed on lists of more or less independent elements, and forms based on analyses of the actors' activities. The first case leads to fragmentation that can have negative effects on training.

The issue of IT skills is interesting, since it is one of Europe's priorities and gives rise to many proposals. In contrast, an ongoing approach, called CoMUN (Compétences Métier utilisant le numérique, Professional Competences Using Digital) aims to position IT skills in a profession vision, which can guide the construction of training very differently. We will conclude by presenting an example of an enigma that was used in the Mooc eFAN (teaching and learning with digital technology) series broadcast by FUN (France Université Numérique), illustrating an offbeat digital approach.

European Frameworks for Digital Competences

The definition of e-skills for the European Commission is within the following framework (Figure 1), around four levels: citizens and learners (micro), teachers and educators (professionals), educational organisations (meso) and societies (macro).
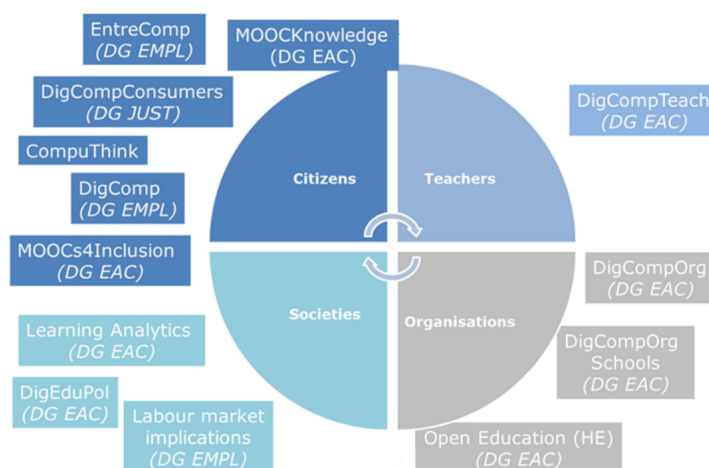
Figure 1. Learning and Skills for the Digital Era[1]

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[1] https://ec.europa.eu/jrc/en/research-topic/learning-and-skills

DIGCOMP is a Framework for Developing and Understanding Digital Competence in Europe[2]. It is mostly oriented towards citizen[3]. It is significant to note that, beyond the citizen, the aspects considered concern consumers (DigCompConsumers) and entrepreneurs (EntreComp).

The DigComp 2.0 document[4] describes "21 competences that citizens and policy-makers can use as tools to improve digital competence".

Figure 2. Learning and Skills for the Digital Era, DigComp 2.0

Five categories of use of DigComp are presented: employment services, job seekers, e-commerce, teachers and learners. Europe documents the use of its framework in the different member states[5], or the influence of DigComp in Europe.

The following version of the framework (DigComp 2.1) is based on the diver metaphor: "Learning to swim in the Digital Ocean: new DigComp report develops proficiency levels in detail"

Figure 3. DigComp 2.1 and the diver metaphor[6]

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[2] http://ftp.jrc.es/EURdoc/JRC83167.pdf

[3] https://ec.europa.eu/jrc/en/digcomp

[4] https://ec.europa.eu/jrc/sites/jrcsh/files/DIGCOMP-PAGE%2001-%20UPDATED%2002-06-2016.pdf

[5] See https://ec.europa.eu/jrc/en/digcomp/implementation

[6] http://publications.jrc.ec.europa.eu/repository/bitstream/JRC106281/web-digcomp2.1pdf_(online).pdf

This metaphor of the diver has a certain link with the referential, around the general idea of learning to swim in a digital ocean. But the five areas of expertise identified (Information and data literacy, Communication and collaboration, Digital content creation, Safety, Problem solving) and the eight proficiency levels which are proposed do not match in the diver's drawing. However, the idea of a diver gives a kind of identity to the referential, a notion and a word that can represent it. Sometimes even to be able to talk about it without knowing it. This question of personification or objectification of a referential is found in the following case: DigCompEdu, Digital Competence of Educators.
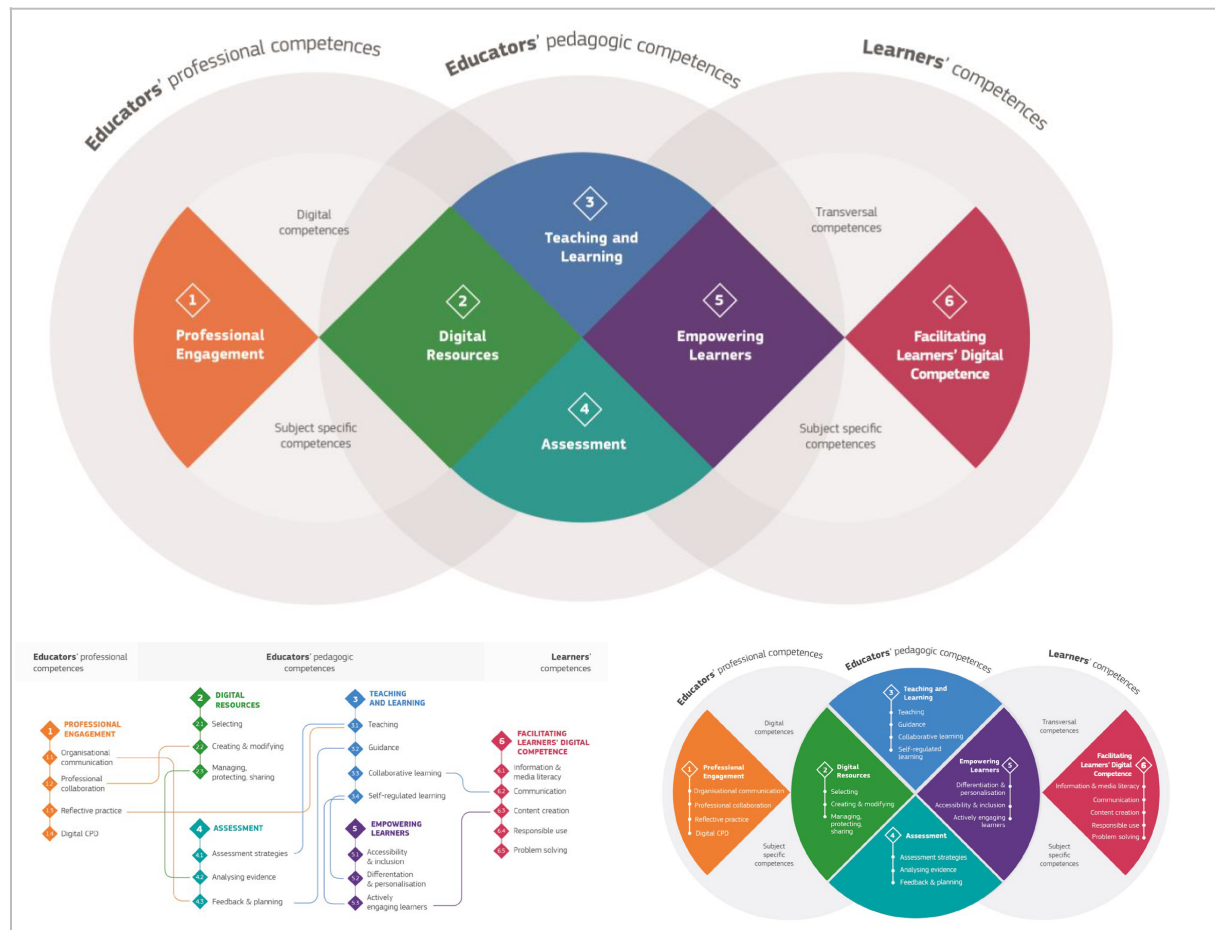
Figure 4. Digital Competence Framework for Educators (DigCompEdu)[7]

Figure 4 shows several drawings of the DigCompEdu framework. When people are asked what the first drawing looks like, most people identify a candy. The second one looks like a subway map. Mixing the two representations provides no more identification to a well-known entity. Why such pictures; a candy, an underground map? Giving an illusion of coherence and globality? Giving the possibility to speak about it without knowing the content? We have no obvious answer, but we can be sure that the aridity of the lists of competences, with large tables to associate fields of expertise and levels of competence, does not facilitate understanding and appropriation. Inserting drawings exemplifies, illustrates, but does not capture the interdependence of the different elements gathered, nor the processes that can bring them together.

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[7] https://ec.europa.eu/jrc/en/digcompedu

Old pictures of DigCompEdu (figure 5 and figure 6) included in earlier versions of the framework, and very difficult to find today, show that other metaphors were proposed with five or six different domains. Concerning names of domain, professional engagement is one of them, included in the last framework in educator's professional competences. A somewhat surprising name, as if the pedagogical skills were not professional!
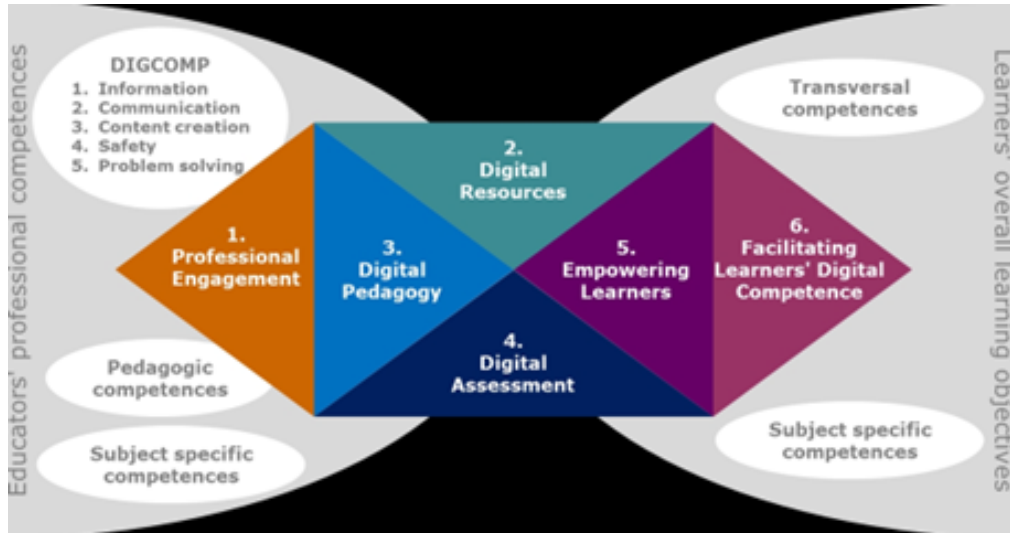
Figure 5. Old picture, DigCompEdu[8]
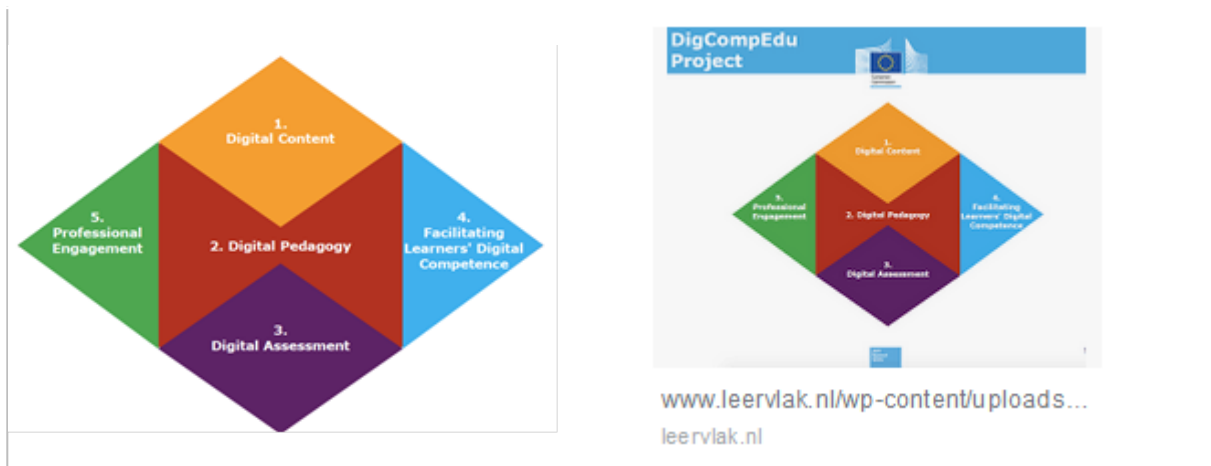
Figure 6. Other old picture of DigCompEdu. The link[9] is broken, but Google Images provides a picture showing the drawing in a page of an European Commission document

Another trend is worth noting. In terms of digital activities and skills, limiting oneself to Internet resources is often not very engaging and there is an increasing use of board games or simple cards that can be played on the front side, giving a framework and questions and the back side providing answers.

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[8] https://www.researchgate.net/figure/DigCompEdu-from-educators-competence-to-learners-objectives-Source-DigCompEdu-2017_fig4_319693481 Teachers' digital competence development through apps and digitals stories about biodiversity. Irena Nančovska Šerbec, Gregor Torkar, Dušan Krnel. University of Ljubljana, Faculty of Education.

[9] www.leervlak.nl%2Findex.php%2Ficto%2Fover-het-european-framework-for-the-digital-competence-of-educators-digcompedu.html&usg=AOvVaw3R4sPavFJtEDxHoUGpIlGp

Thus Figure 7, based on an adapted model of SCONUL (The SCONUL Seven Pillars of Information Literacy[10]), shows both sides of a card on the issue of selecting appropriate resources.

This underlines the importance of having small and tangible objects to launch concrete activities with learners. It is also another way, beyond metaphors and drawings, to make list elements manageable, otherwise difficult to understand.
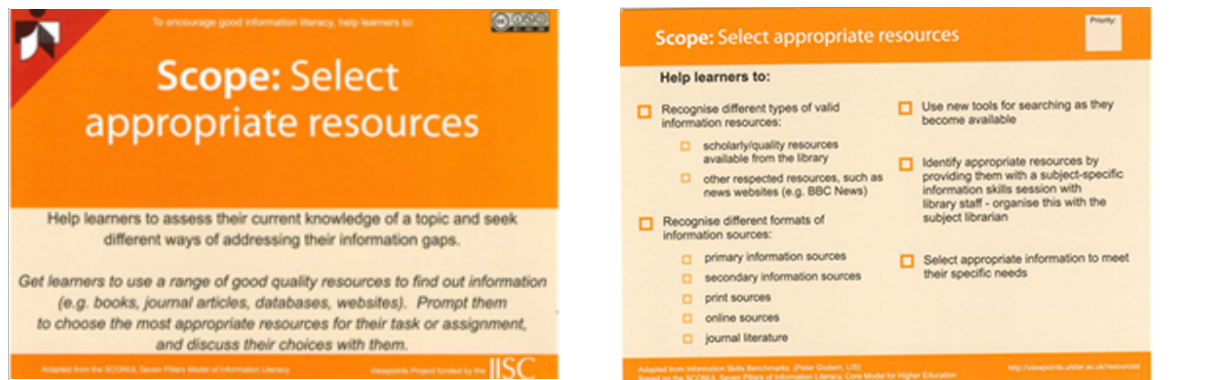
Figure 7. JISC cards on digital competences

The CoMUN project (Professional Competences Using Digital)

The CoMUN project, supported by two departments of the French Ministry of Education and the Ministry of Higher Education, aims to redefine the competencies of the training professions in a digital environment and to enhance the digital dimension of the national education professional reference system[11]. Its objective is also to find complementarity with the PIX project, an online public service of evaluation, development and certification of digital skills[12].

In this text, we will simply present the main characteristics of this project and what makes it different from the European approaches that have just been briefly described.

First, the development of CoMUN is based on Coulet's model, which distinguishes task orientation, orientation towards others and orientation towards oneself. It is a model for understanding and organising skills acquisition.

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[10] https://www.sconul.ac.uk/sites/default/files/documents/coremodel.pdf

[11] www.devenirenseignant.gouv.fr/cid98773/le-referentiel-competences-des-metiers-professorat-education.html

[12] https://pix.fr/

	Orientation vers la tâche	Orientation vers autrui	Orientation vers soi
Comprendre les conduites humaines	Par exemple ✓ Analyse des besoins ✓ Evaluation	Par exemple ✓ Respect de la déontologie et des normes professionnelles ✓ Adhésion à des théories et méthodes d'investigation	Par exemple ✓ Garder une neutralité bienveillante ✓ Réactualiser ses propres compétences
Agir directement ou indirectement sur les conduites humaines	Par exemple ✓ Intervention ✓ Communication des résultats	Par exemple ✓ Respect de la déontologie et des normes professionnelles ✓ Communication avec les pairs, les institutions, etc.	Par exemple ✓ Evaluation de ses propres activités ✓ Capitalisation de son expérience

Figure 8. Some characteristics of the model of Jean-Claude Coulet[13]

So, a psychological model underlines the development of the framework.

Second, competences are viewed as finalised, instrumented and referenced practices (Figure 9). One key point is the link with research, research methods and results constitute an important basis and nourish a professional directory that should be shared by professionals.
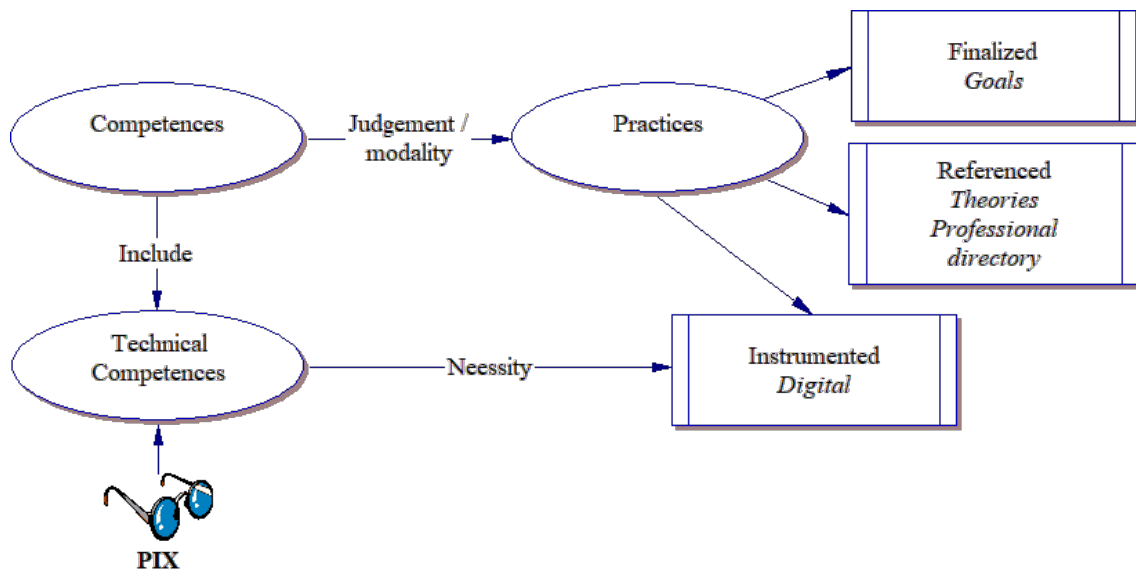
Figure 9. Competences and practices, the CoMUN model

Thirdly, the framework is not organised in several domains, but around categories of activities, corresponding to core activity of teachers: design, implement, evaluate, monitor (*veille*) and management activities (orientation, selection, collective planning…).

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[13] Coulet, J.C. (2011), « La notion de compétence : un modèle pour décrire, évaluer et développer les compétences ». Le Travail Humain, 74, 1, 1-30.
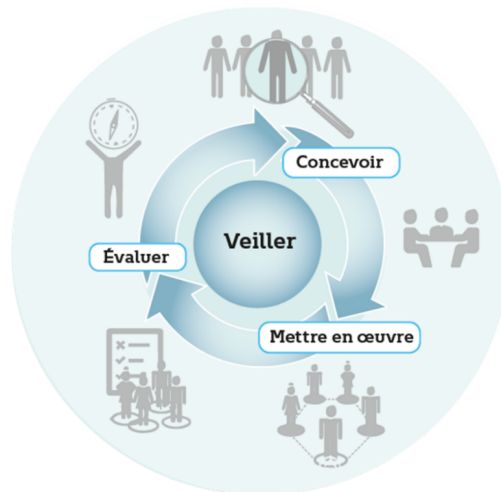
Figure 10. A representation of the CoMUN model (Magali Roumy-Akué)

The relationship between activities are taken into account, and the way of thinking what can bring digital is embedded in the activities. Such a design allows to conceive formation differently, not as lists of elementary and independent competences to be acquired, but as integral part of teachers' activity.

As an example, the model CoMUN has been briefly presented in a short video last year during the first week of the Mooc EMPAN[14], mainly oriented to adult trainers and teacher trainers. Participants were asked to produce a drawing, or a map or a sketch (or other picture with any tool) for summarizing a part of the presentation. It leads to nearly one thousand posts, with more than five hundred productions. These productions and the comments testify the acceptability of the CoMUN model in this community and furthermore an adhesion to it.

Another vision of fragmentation: a Mooc enigma, "L'étranger en a 43"

As part of a series of several MOOCs (open and massive online courses) named eFAN "Teaching and Training with Digital", a weekly activity has been proposed to encourage exchanges and cooperation on the forums: an enigma. Launching activities in a MOOC starting from enigmas, in connection with the proposed course, offers many advantages notably the necessity of exchanges with other participants which can help to develop forms of community. It is an opportunity to see things differently, to associate knowledge and skills around a case, to open up to broader questions linked to the current theme, to provide different facets of it, etc. Once a solution has been found, explaining how it was done is another side of the enigma interest: sharing research methods, teaching others, providing proposals to go further, etc. Co-training can be developed.

Concerning the specific enigma "L'étranger en a 43" (The foreigner has 43), we will here only focus on the solution.

Thanks to Google, providing a new vision of search engine as a sort of hyper surrealist, participants found many *strange* solutions:

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[14] https://www.fun-mooc.fr/courses/course-v1:GIPFTLVIP+137001+session01/about

- "The economy in foreign hands: 43% of the shares on the Paris Stock Exchange held by non-French people" (Jeune Nation[15], Le Monde[16], La Tribune[17])

- the 43rd Cesar for the best foreign film

- 43 titles of Plato's complete works

- The Ossetian alphabet contains 43 letters

- Article 43 of the (Belgian) Act on access to the territory, residence, establishment and removal of foreigners

- The digital university: the "Australian system has 43 accredited higher education institutions..."

- "The Dubois-Buyse scale of common French spelling contains 3787 words of common use, words spread over 43 steps...

The novel by Camus "the Foreigner" is quickly quoted.

- If Wikipedia announces 40 translations, couldn't we go up to 43?

- Confirmed by someone who claims that the novel has been translated into 43 languages.

- "Camus' stranger, in my opinion. 43 chapters? »

A hint is given leading to a simpler task: "We look for a word present 43 times in Camus' novel". Then, find a digital version of the text. It can be accessed on une bibliothèque numérique canadienne (Les classiques en sciences sociales) of the Québec University at Chicoutimi founded and directed by Jean-Marie Tremblay. Then, find a tool that classifies words according to their number of occurrences in the novel. The only word that appears 43 times is the word "sun".

What is interesting is the origin of the enigma. This is from an exhibition by artist Vibeke Tandberg in Tönsberg, Norway. She had cut out all the pages of Camus' novel and all the words in the pages and had put on the wall the different hollowed out pages and the words classified in alphabetical order. A strange way to show the novel to the world.

It has an absurd and iconoclast side (destroying Gallimard!): Paper! Paper! Replaces text with visual patterns. Is it possible to find new meanings? Anyway the lexicon is made visible. Thus, the only word beginning with z is zero.

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[15] http://www.jeune-nation.com/divers/leconomie-aux-mains-de-letranger-43-des-actions-a-la-bourse-de-paris-detenues-par-des-non-francais.html

[16] http://www.lemonde.fr/argent/article/2014/06/03/les-entreprises-du-cac-controlees-a-43-par-des-investisseurs-etrangers_4431012_1657007.html#CL4TITgZ2Odwcyy5.99

[17] https://www.latribune.fr/actualites/economie/france/20140603trib000833168/43-des-entreprises-francaises-cotees-sont-detenues-par-des-etrangers.html

Figure 11. Exhibition of Vibeke Tandberg
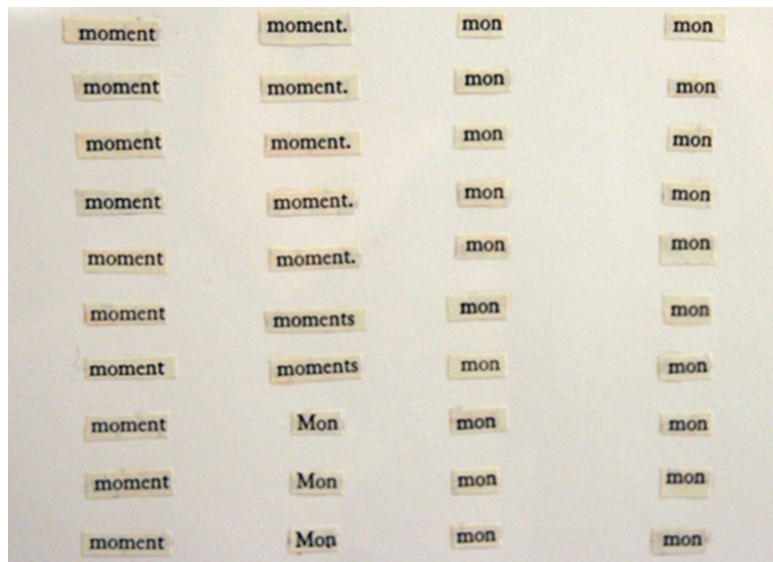
Figure 12. Exhibition of Vibeke Tandberg, all the words

This exhibition simulates what we do with digital: instrumenting to see differently.

This allows many new activities, to look at the novel differently, to experiment, but it does not replace the reading of Camus' novel, whether on paper or electronically, which underlines the difference between fragmentation and synthesis.

Concluding remarks

This text has tried to discuss the tensions arising from frameworks based on lists of elementary skills, often corresponding to fragmented approaches in search of unity and synthesis. It contrasts this with activity-based approaches that organise skills around these activities. This remains to be explored further.

The case of school 42[18] is interesting. It declares itself without a teacher. But progressions are organised and proposed to students and forms of collective work are recommended. As a lot of things happen on the computer, a lot of data is automatically retrieved and usable, especially for various certifications. The acquisition of skills is done through projects, the duration of the training and the productions carried out make it possible to certify the acquired skills. One challenge is to ensure that the training followed will allow students from 42 school to continuously adapt to changes and continue to progress.

Competency-based approaches alone, putting the burden on people in full responsibility to acquire and develop them, are insufficient to take into account the complexity of situations. New models put at the heart of their analyses the interactions with the environments in which skills can or cannot be deployed: capabilities, with conversion criteria (Amartya Sen's Capability Approach), emancipating environments... These models are promising but require to be more precisely operationalised.

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[18] https://www.42.fr/

Open Badges as Tools for Change within Higher Education Institutions

Caroline Belan-Ménagier

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This short paper is based on an oral presentation I gave at ePIC 2018 international conference in Paris, France. The objective of the presentation was to share experience feedback on an experiment that involves open badges, quality assurance and extracurricular skills -- the skills acquired outside of study programs at university level. This experiment is based on the implementation of the French law on "Equality and Citizenship"[19] which, since January 2017, has allowed students to ask for the recognition of the skills they have acquired though their extracurricular engagement in associations, working environments and activities such as being volunteer fire-fighters for instance. Within this legal framework, higher education institutions (HEIs) in France are now being confronted to the emergence of informal skills in their formal education systems, of informal and non-formal *recognition processes* of informal or non-formal activities of students… without much clue on how to deal with them or how to guarantee the quality of the recognition and assessment of skills. And yet, quality assurance is a central element of European higher education policies and is evaluated by independent agencies – as such it cannot be disregarded to assess any kind of skills within a HEI.

Because identification, assessment and recognition of skills is complex—and I am using the word "skills" as opposed to the expression "academic *knowledge*" because in our French institutions they are commonly opposed—because skills are still considered both a complex and pointless issue in many HEIs in Europe, the French ministry for higher education, research and innovation decided, in 2016, to respond to an Erasmus+ call for proposals on the implementation of Bologna Process reforms at national levels on, precisely, students' "extracurricular" skills.

The project, called EXTRA[sup20], shall be finished in 2019; it aims at providing a methodological toolkit on the recognition and quality of extracurricular learning outcomes and competences. Based on a classical quality assurance approach, the methodology guides stakeholders into (1) finding consensus with every entity that will be impacted by this recognition of skills (i.e. employers, civil society and associations, students and the university itself) ; (2) promoting impact analysis to identify to what extent this recognition comes as a lever to employability or on the contrary as an obstacle as some studies are clearly demonstrating and (3) encouraging a systemic modus operandi based on the Bologna Process Principles and tools such as the Diploma Supplement, ECTS, EQF, readability of study programs, student-centred learning, etc.

As each HEI is autonomous in the European Higher Education Area, there is no instruction or prescription to be made, however EXTRa[sup] project team suggested using e-portfolios, the competence-based approach as well as open badges as facilitators of the recognition of extracurricular skills. The background to the experiment is therefore based on the French

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[19] https://www.gouvernement.fr/action/la-loi-egalite-et-citoyennete

[20] http://www.extrasup.eu/

law on the one hand, and the driving dynamics of an Erasmus+ project on the recognition of skills acquired outside the formal curricula. As for the experiment itself, it took place in the framework of a cluster of two universities (Poitiers and Limoges universities) and one engineering school (Isae-Ensma) in the northern part of the large French region of Nouvelle Aquitaine. Those three structures have gathered to develop a common portfolio of projects. The cluster named *Confederal University Leonardo da Vinc*i is therefore in charge of leading projects but not of direct implementation or direct contacts with students or academic staff; it finds ways of building cooperation and devising light coordination so that staff and academics feel free to invest together in their own projects. As the law on "Equality and Citizenship" applies to everyone in France, working within this cluster on the recognition of extracurricular skills did make sense. As EXTRA^sup was simultaneously being developed, I suggested we tested the different phases of the quality assurance approach of recognition in our cluster of institutions. As it happened, we were also developing the concept of open badges to informally recognise those skills and those related to international mobility experiences and to the use of multimedia within the university of Limoges "third-place" called UL Factory.

Now that EXTRA^sup is almost at the finish line, I thought I would share the main findings of this journey which go beyond the project itself and beyond open badges themselves. The last year of work (2018) has brought 4 main issues to our attention while experimenting open badges at university level within the project framework:

1. The risk of developing a minimal use of open badges without changing anything, or even worse, using them to go in the wrong direction;

2. The risk of taking an institutional stance, overlooking the ecosystems, the students and the added value and impact of badges;

3. Not finding consensus by lack of co-design of badges;

4. The need to put recognition as a prerequisite of all action.

The temptation of using open badges to support business as usual

When we first launched consensus meetings, based on EXTRa^sup methodology, the introduction of digital open badges was seen by 99% of university staff, employers and students as great, interesting, challenging. Students loved the idea of gamification; employers saw the benefit of making each CV "different" thanks to badges; and the academic staff jumped on the idea that *finally*, they could set up micro-credentials. Micro credentials would indeed ensure that no average student could graduate any longer, by compensating average grades with higher grades -- with badges one could get a much better look at each skill. This only underlines how little academics (unconsciously maybe?) think of today's diplomas and how little value they attach to them. If higher education is to have a lifelong & life-wide learning dimension, this approach to micro-credentials resembles more a disguised way of casting out students/learners to have a more and more elitist educational system… As to the employers who came to our consensus meetings, they openly explained how they thought diplomas were "worthless" and how they preferred hiring people with potential, train them and optionally send them back to school if necessary, for specific knowledge. Those meetings, as they took place within the university premises, were lively as one can imagine…

As often, most of the debates revolved around the frustrations of each stakeholder and allowed them to express their own points of view of what they thought was an inefficient "system". There were few talks about open badges as tools for change unfortunately. The micro-credential vision imposed itself and up to this day we are still struggling to define what "skills" are, how badges can make visible the contexts in which skills are mobilized; how badges can reflect a personal, individual journey… and most of all what the added value for the students is.

Impact & added value: What/who are badges for?

There is a recurrent tendency of the institutions to talk *for* students, to know better what they need and what they want – but experience shows that few students are used to contributing and publicly express what they need and what they want… When consensus meetings took place around open badges and the recognition of extracurricular learning outcomes, students did not respond to the stakes of employability (it could be because they couldn't project themselves into the future) and they adopted the institution's mainstream viewpoint (it could be because when meetings take place within the university with academics, there is no other solution). As for HEIs, there is a recurrent tendency not to see that there is an ecosystem out there and that all its members (students and staff included) are part of it. Concretely, this means that there is no easy answer to the questions asked in the "badge canvas"[21] : "who would want to obtain this badge and why? Who is the audience of this badge? Why would the issuer benefit from this badge?" Answering those questions indeed imply 1) that one should not take the ecosystem for granted (the ecosystem should be invited to the meetings); 2) that someone has to speak for students or assume the role of students/ earners in the ecosystem ; moreover badges can only come with a whole set of helping tools dedicated to students, for them to learn how to talk about their badges, their skills and themselves ; 3) and finally, this also means that at some point someone will have to assess the impact of badges and of their contents to see if they are or are still relevant in the ecosystem and if they *do* make a change. Up to this day, I don not think that students and academics have managed to answer all the questions; there seems to be an abyss between a strong diploma culture that never gets challenged and a small interoperable object that connects people in a wide and decentralised ecosystem.

Co-design: setting the cat among the pigeons

Co-designing badges with multiple stakeholders is implied in the "badge canvas" but ePIC conference this year also shows that thinking badges and any tool of recognition *in* an ecosystem is the key to success. This is why we chose to experiment badges based on the employers' suggestions and with a wide panel of "outside" stakeholders (apart from academics and staff, there were civil society representatives from the town hall, from the ministry of sports and from a professional sports federation) : the participants to the second workshop chose to recognise skills linked to sporting activities. We collectively thought soft and life skills would be easy to identify, and they did make a difference in people's lives and learning experiences. Employers admitted they were very keen on identifying those skills in students – but (violent) contradiction came from the academic sport specialists who saw badges as a threat: what would happen if badges could informally recognise skills that

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[21] https://lilab.eu/wp-content/uploads/2016/12/Screen-Shot-2016-12-10-at-11.51.15.png

could also be formally recognised by a certificate or a study program? How could one avoid competition between the informal and the formal? What would happen if a student with badges that recognised the skills she/he had acquired in sporting activities got hired by an employer at the expense of a student with certified sporting activities? …. And once again, open badges put pressure where it hurts. This viewpoint was not widely shared, but it did put an end to this series of consensus meetings as the end of the academic year was close.

When recognition precedes….recognition

Last but not least, it is important to say that the implementation of open badges was fully led by the institution; this was not a bottom-up initiative coming from students. We now have in our network a secondary school issuing badges so in a few years we'll probably have students asking for badges but that was not the case. We planned the consensus meetings among academic staff, with a few ideas in mind, among which issuing badges for the participation in the university multimedia lab. The lab welcomes staff, academics and students who get short trainings to carry out their own projects. Anyone who comes to the lab learns and practices multimedia and notably video. They do not become experts, but the colleagues felt that even though the final student projects always get graded the lessons learnt were invisible – and of course that also meant that their own work was invisible. More interestingly, the lab is managed by a team made of a university staff and young volunteers doing community service. Most of them, at that point, were drop outs; they had given up high school or short university cycles; they were taking a year off to "do something", to keep busy, or to earn a little bit of money, and potentially to discover what they could do next. But the basic premise of those volunteers we simply overlooked: we sincerely didn't anticipate what was to happen though it was right there in front of us. When we launched the consensus meetings, we asked them to define the kinds of skills they thought the students and academics acquired when carrying out their projects thanks to the multimedia lab. They were very creative about identifying the sills, and at the same time very rigid about the *accuracy* of skills, the different levels of mastery they had identified; to the point that *they* triggered off the discussion on the comparison between someone with badges and someone with a regular diploma. In any case, it seemed obvious when listening to their discussions, that the students who would come for one short and simple project would *never* acquire the skills and all the badges that they were building…

The final touch came when I asked them if, in the future, they would endorse and recognise badges coming from other structures or associations – one of their badges was about being a project leader or manager, other structures could actually issue the same badges. They answered that the student would have to take a test to verify that his or her badge did reflect his or her skills, but that they would not simply endorse another badge. They did not trust the system. When we wrapped up the discussion, we concluded that we could not issue badges that would equal the contents of a true diploma on multimedia, but that we should emphasise the practices taking place in that peculiar context and the specific touch of learning in a university third-place as a collaborative project. This seemed rational to their boss (even though she was a bit disappointed, but they were *very* disappointed: in fact "upset" would better summarise the situation. We were asking them to recognise other people, to issue "low-level" badges – or so they felt -- but they were projecting their own lack of recognition on the badges of their audience. By not granting them the possibility to issue "high-level", "mastery" or "expert" badges we were negating their own competences, denying them all recognition.

We left it to rest for the summer, and now we are staring again on different grounds and with new students, having learnt from that experience. We are now going to identify skills with a high school that is experimenting recognising those skills too, so that he idea of endorsing badges will be there from the start (if we're lucky we might even share badges..). Then we will launch the first "recognition campaign" towards the community service volunteers and the whole lab team with a view to empowering them to become recognising agents. Finally, we will simply issue badges for participation to the multimedia lab activities.

This is experience feedback, no more, no less: about 6 months of work in a university, trying to implement a quality assurance approach to issuing open badges for the recognition of extracurricular skills of students. The use of open badges has triggered off incredible discussions that I wanted to share. Those discussions have greatly slowed down the concrete work of creating badges, but they have had the advantage of bumping the real issues at the top of the list. That is: consensus building, trust and recognition.

How to Open Recognition?

Serge Ravet

Reconnaître-Open Recognition Alliance

Recognition precedes Knowledge

-Axel Honneth

Context

Open Recognition is a concept coined in 2016 with the publication of the Bologna Open Recognition Declaration[22], "a call for a universal open architecture for the recognition of lifelong and life-wide learning achievements." It is part of a wider group of *open things* that comprises open science, open knowledge, open learning, open educational resources (OER), open data, open standards, open identity, open society and several more, in particular Open Badges.

> "Open Badges, the open standard for the recognition of learning achievements has proved the power of a simple, affordable, resilient and trustworthy technology to create an open recognition ecosystem working across countries, educational sectors, work, social environments and technologies." (ibid.)

Without Open Badges the concept of Open Recognition might not have emerged and been adopted by an ever increasing number of individuals and organisations across the world. But Open Recognition is not limited to what Open Badges were designed for: *making visible informal learning*. As it will be developed below, designed to make informal learning visible, Open Badges have opened the path to *making informal recognition* [also] visible.

To attempt a definition of what Open Recognition is, it might be helpful to first define what *recognition* is and explore how *Open Recognition* could be related to the definition of other *open things*.

What is recognition?

Recognition can take many different forms: validation, certification, accreditation, endorsement, etc. which are *formalised* forms of recognition generally delivered by formal institution of education, awarding or accrediting bodies. Yet, there are other forms of recognition, less formal, like when one acknowledges someone else with a *thank you*, *you did a fantastic job*, *I trust you* or *you are my friend*. These forms of recognition are just as important as the formal ones, if not more so. Just as *informal learning* represents probably over 90% of all our learnings, *informal recognition* is likely to represent even more than 95% of all the expressions of recognition during a lifetime.

And while some energy and thinking has been devoted to the recognition of informal learning, Open Badges being the most recent and prominent initiative in that matter, much less efforts have been dedicated in the field of *informal recognition*. Where is the equivalent

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[22] https://www.openrecognition.org/bord

of Prior Learning Assessment and Recognition (PLAR) in the field of recognition? Is there anything to "recognise" the value of *Informal Recognition of Informal Learning* or something like *Formal Recognition of Informal Recognition*?

While those ideas might be perceived as far fetched to those for whom the only valuable recognition is the one delivered by a "recognised authority," Open Recognition is mostly an unknown territory which might be worth exploring.

As the result of an exploration of the *recognition territory*, we have created a map defined by two axes:

- Formal / non-formal — institution / community centred;
- Traditional / non-traditional — past / future, static / dynamic.
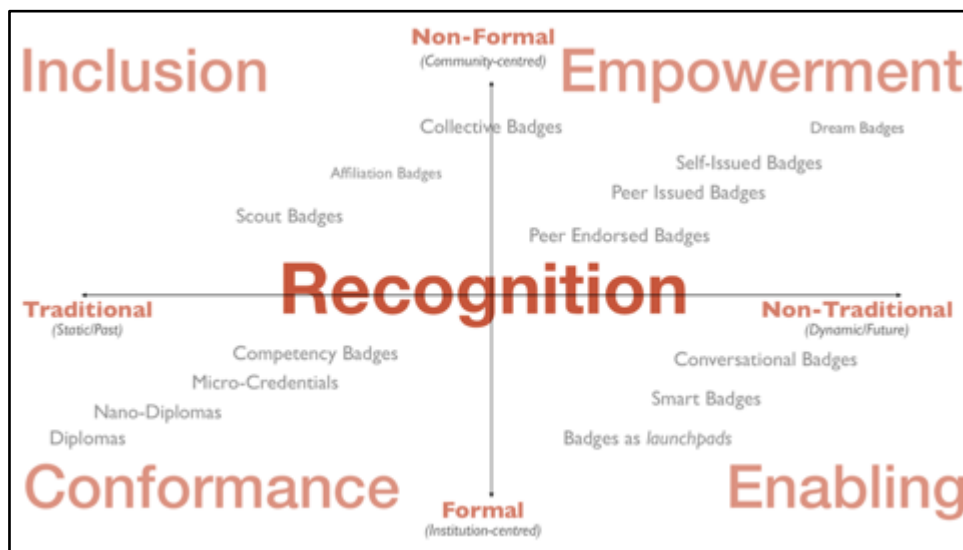
Figure 1. Open Recognition Map—Source: Serge Ravet.

To populate the map, a number of "badges" have been added with names eliciting either the type or modality of recognition. For example, Smart Badges are recognition tokens whose display can change over time, depending on how they are being "fed", like a Tamagotchi.

The two axes split the space into four quadrants:

- **Conformance** — the focus is on the alignment to institutional [predefined] standards;
- **Inclusion** — the focus is on alignment to community norms;
- **Enabling** — the focus is on providing dynamic recognition instruments that, unlike traditional diplomas and certificates [and badges used as micro-credentials!] are not static, are oriented towards the future; and
- **Empowerment** — the focus is on providing individuals and communities the means to have a say in the design, implementation and running of open recognition ecosystems.

While the *conformance* quadrant might seem the least open and the *empowerment* one the most open, in reality all four quadrants can be opened, so that an institution of formal education could develop Open Recognition practices contributing to an Open Recognition

Ecosystem. One example would be an institution working within its community, small or large, to recognise the *actual learning* that takes place within the community, beyond the funnel vision defined by predefined standards and diplomas.

Conversely, communities could be tempted to mimic traditional institutions of formal education and implement recognition practices that are not open in order to get a funding they would not get otherwise. This is a real danger that could be described as either *the colonisation of the informal by the formal* or *the formolisation* of informal learning and recognition.

How does Open Recognition fit in the community of Open Things

Let's have a look at the definition of other *open things*, for example Open Learning:

> "an innovative movement in education that emerged in the 1970s and evolved into fields of practice and study. The term refers generally to activities that either **enhance learning opportunities** within formal education systems or **broaden learning opportunities** beyond formal education systems." Source [Wikipedia][23], highlights are mine.

And Open Science, defined by *Foster[24]* as:

> "the practice of science in such a way that others can collaborate and contribute, where research data, lab notes and other research processes are freely available, under terms that enable reuse, redistribution and reproduction of the research and its underlying data and methods."

Or Open Educational Resources (OER) defined by Unesco[25] as:

> "teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions."

We have here three definitions of openness using different terms relevant to their contexts:
- A ***movement*** for Open Learning
- A ***practice*** *for* Open Science
- A ***license*** for OERs

A definition of Open Recognition might combine several terms:
- a *movement* emerging from the development of
- a *practice, making informal learning visible*, enabled by the adoption of
- a *technology*, the *Open Badges*, based on
- a *license*, the *Open Badges standard*.

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[23] https://en.wikipedia.org/wiki/Open_learning

[24] https://en.wikipedia.org/wiki/Open_learning

[25] https://en.unesco.org/themes/building-knowledge-societies/oer

Transposing the above into a definition could lead to:

> **Open Recognition is a *movement born from the practice of Open Badges, exploring and promoting practices, technologies and policies enhancing and broadening the opportunities for everybody, individuals and communities, to be recognised <u>and contribute to the recognition of others</u>***. (the underlined part is explained below)

Initially developed by the Mozilla Foundation and the MacArthur Foundation, Open Badges played a significant role in instrumenting an *emerging practice,* the recognition of a form of learning that, until their invention, remained mostly invisible—unlike formal learning and its paraphernalia of diplomas and certificates.

But there is more to that story: once we had at our disposal an instrument making informal learning visible, the very same instrument had the capacity to make *informal recognition* visible as well. While an arcane distinction at first sight, it is of critical importance to establish to its full extent what Open Recognition is about:

- **Formal recognition of informal learning**, is usually understood as the recognition of informal learning by an institution of formal education. It is the institution that has the power to recognise. A typical example is Prior Learning Assessment and Recognition (PLAR) where work and life experiences can be translated into credits that might count towards an academic qualification.

- **Informal recognition of informal learning**, on the other hand, is the recognition which remains mostly *unrecognised* by institutions of formal education. Yet it exists under many different guises, like the promotion to a new job, a pay raise, a celebration or congratulation.

Informal learning and *informal recognition* have at least one thing in common: unlike their *formal* counterparts, they are not *visible*. To be more precise, they might be visible and meaningful locally, within a very narrow range of action, but rarely beyond. The strength of formal education is that the recognition produced *locally* within the institution is in general translated into a credential that can be displayed and understood within a much larger community. Beyond its educational mission, formal institutions of education could be understood as organisations transforming *local recognitions,* by the institution, into *global recognitions* by professions, the industry, nationally or internationally, depending on the level of recognition of the institution itself and their alumni.

Open Badges offer the opportunity to make all forms of recognition visible, whether formal or informal, issued by an institution of formal education, an organisation, a community or an individual. What was only visible locally can now be made visible globally.

Who has the legitimacy to recognise?

When someone receives a recognition, the person can accept or refuse it. A way to show that a badge has been accepted is to make it visible in one's Open Badge passport, social media (Twitter, Facebook or LinkedIn) or personal site/blog. In accepting a badge, the implicit message from its recipient to the issuer is: "I recognise you who has recognised

me." The recognition is *mutual*.

And if a recognition is *mutual* then a logical inference might be that the process for the delivery of a badge as a token of recognition can be initiated by any of the two parties—there could be more than two, but let's start with a simple case.

A recognition process can be triggered by:
- The recipient who *claims* a badge by asking another party to *issue* the badge on his/her behalf;
- The issuer of a badge who *notifies a* recipient that he/she can collect a badge in his/her name.

When the recipient asks another party to issue a badge on his/her behalf, it is an act of recognition of the future issuer. If the invited issuer issues the badge claimed by the recipient, it is an act of recognition of the recipient.

This point was obviously not understood during the developed the first Open Badge technologies: the Backpack created by the Mozilla Foundation only allowed individuals to collect badges issued by institutions or organisations that had the "legitimacy" to recognise. The first Open Badges were clearly designed to solely support the *formal recognition of informal learning.* They were not designed to support the *informal recognition of informal learning*. The recognition ecosystem was deeply asymmetrical, with *the power to recognise* (issuing badges) solely into the hands of institutions and denied to individuals.

NB: The "Open" in "Open Badges" refers to the openness of a technical standard, not to the practices they enable, and the only practice they were designed for was the *formal recognition of informal learning*. Open Badges were not *open* to support *informal recognition of informal learning*.

While a step forward when compared to the statu quo ante, keeping the badge earners at the periphery of the ecosystem had a negative influence on the development of Open Badge practices: when institutions of formal education started to use them to recognise *informal learning,* they also decided to use them to recognise *formal learning* as well, and in doing so often retrofitted traditional recognition practices into Open Badge practices in a process that could be described as a *colonisation of informal learning by institutions of formal education*. g

While the beauty of informal learning resides precisely in its *informality*, by introducing Open Badges to recognise *informal learning* a number of institutions of formal education engaged a process of formalisation that ultimately would destroy the very notion of informal learning through its normalisation and standardisation. If to be recognised informal learning has to be aligned against some kind of standard, if the implicit message is *only the learning that can be aligned to a formal framework will be recognised* where is the space for freedom, creativity and authenticity?

A badly designed informal learning recognition system could just kill the appetite for informal learning altogether. Conversely, a well designed informal recognition ecosystem could influence positively the traditional recognition approaches based grades and certificates. It could be the opportunity to recognise informal learning to explore innovative

thinking and methods, trying to avoid using those that are already used in traditional formal education.

Could Open Badges be an opportunity to… decolonise formal recognition?

How to open recognition?

Opening recognition is about creating the conditions, the ecosystem, enabling *the recognition of all by all*. It should start by recognising that everybody is both in search of recognition by others as well as having the power to recognise others.

When someone objects to the value of a recognition performed by an entity other than a recognised authority, an institution of formal education or an awarding body, the objection can be challenged on several grounds:

- An individual can make an authoritative judgement independently from the institution he/she belongs to, e.g. when an expert endorses a peer;

- A group of people can make an authoritative judgement, something that could be understood in relation to collective intelligence.

In 1907, Francis Galton published Vox Populi, a paper studying how a group of people attending a Fat Stock and Poultry Exhibition in the West of England were able collectively to guess within 1% the weight of a certain ox would be after it had been slaughtered and "dressed." He found that if individuals were almost never able to estimate the exact weight of the cattle, the median of the individual estimates was close to the actual result within 1%.

If we replace the challenge of assessing the weight of a "dressed" ox by assessing someone's ability to perform a certain task, we might find similar results. So to the objection that the value of a recognition performed by one person might be out of range, weighing a number of them would lead closer to the actual result. Of course, the people engaged in the assessment should understand what they are assessing, as did the participants in Francis Galton's original study: most of the participants who assessed the weight of the animal were trained professionals.

If one way to open recognition is to recognise the value of the recognition of individuals and [informed] communities (not just "crowds"), the *recognisant agents*, another approach could start from the person (or a community) in search of recognition who would define what she/he wants to be recognised for. We could start with the question: *how could we open formal recognition?* Which leads to the following question: *if diplomas are the way to recognise a successful formal education, could we imagine Open Diplomas?*

The following scenarios elicit ways formal recognition could be made more open:

- Marie is actively engaged in a trans-disciplinary study for which she picks and mixes different modules from different disciplines at different universities and other places of learning. She asks one of the universities she is attending to recognise that her learning has the value of a master's degree. The diploma is a unique diploma, Marie's diploma and nobody else has the same. Although unique it is recognised to be at the level of a master's degree.

- John, who has 20 years experience in the industry, goes to a university and asks to have his unique experience recognised as a master's degree. The diploma is a unique diploma, John's diploma and nobody else has the same. Although unique it is recognised to be at the level of a master's degree.
- Representatives of a professional community with its own professional development curriculum and practice (peer review) negotiate with a university to have their curriculum endorsed and get credits towards academic degrees for the recognition they have obtained in the field.

These examples tick several of the boxes of Open Recognition: it is open to people and communities, they combine formal and non-formal recognition (academic credit and peer review), they are open to innovative practice, and probably to emergent knowledge too. In all instances, it is the individuals and the communities that are at the initiative of the recognition process. They also recognise those who will recognise them.

(provisional) Conclusion

Open Recognition is about *opening recognition* and making everybody an active participant in an ecosystem conducive to mutual recognition. It is a movement in its infancy and there is still much work to be done to develop a shared understanding of the issues at stake and the range of solutions to address them. Ultimately it is about creating the conditions for an Open Society, i.e. a society open to others.

References

Ravet, S. (2017). A series of articles related to Open Badges and recognition. Retrieved from http://www.learningfutures.eu/:

- Towards an Ethical Framework for Open Recognition
- Open Recognition and its Enemies (1) — The genesis of Open Badges
- Open Recognition and its Enemies (2) — No Informal Learning without Informal Recognition
- Open Recognition and its Enemies (3) — Informal recognition in the Walhalla of Badges
- Open Recognition and its Enemies (4) — Quality Assurance
- Open Recognition and its Enemies (5) — Saved by Open Endorsement!
- Beyond Open Badges: #OpenSignatures — the power to act, rather than the power to pack!
- OpenBadges: the Milestones of a re-Decentralised Web
- The Open Badges Backpack: an obstacle to innovation?
- From #blockchain to #BadgeChain – Introduction
- From #blockchain to #BadgeChain (2) – the chained badge
- From #blockchain to #BadgeChain (3) — the trustworthy chain
- OpenBadges: the BOTOX of education? — #BeyondCredentials
- OpenBadges: formal vs. informal recognition — #BeyondCredentials part 2
- The Advent of the Personal Ledger — #ePortfolios and #OpenBadges Unite!
- Rebuilding Trust, the Currency of an Open Economy and Society — #OpenBadges, #badgechain

- Valuing human capital and social capital doesn't need "pretty pictures"
- Open Badges + #Blockchains = #BitofTrust ?
- Open Badges 'of' civic engagement vs. 'for' civic engagement
- Open Badges: "micro-credentials" vs. "progressive-credentials"
- What relationship between #OpenBadges and competencies?
- Open Badges for Holographic Identities
- For an Open Badge Conceptual Framework (green paper)

Eportfolio and Open Badges: Lifelong Learning Practices In Siberian Federal University

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NB: *this paper was presented at ePIC 2017 in Bologna*

Keywords: assessment of learning outcomes, ePortfolio, educational paradigm, Federal Government Educational Standard, lifelong learning, Summer School

Nowadys ePortfolio is a powerful pedagogical technology for formal and informal education system in the concept of lifelong learning. It is particularly important in training Siberian Federal University (SibFU) students - future teachers, since the teaching profession requires permanent reflection, personal and professional development. School of Education, Psychology and Sociology (SEPS) have been implementing ePortfolio technology for 10 years by now. The timeline below shows the history of the portfolio technology integration in the future teachers' training.
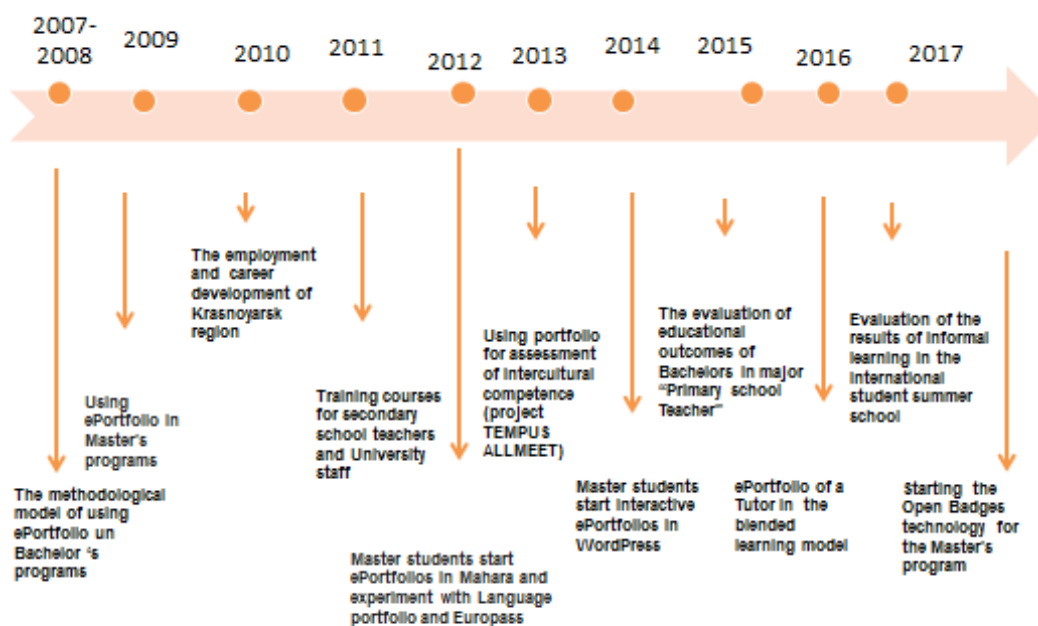
Figure 1. SEPS SibFU experience in ePortfolio (2007-2017)

In 2007 -2009 it was implemented at the level of undergraduate and graduate programs. From 2010 to 2012 ePortfolio became a popular tool for professional and personal development. For the last two years ePortfolio is being an instrument for intercultural competencies assessment. Since 2016 the ePortfolio technology has been used in training Tutors by using different models of blended learning. In 2017 students' informal learning outcomes have been assessed in the frameworks of International Summer School "Intercultural Mediation in Education". Also School of Education, Psychology and Sociology is starting the use Open Badges technology for open recognition in Master's programs. A new platform for ePortfolio in a practice-oriented teaching is being piloting.

At the School of Education, Psychology and Sociology ePortfolio technology is implemented in the paradigm of lifelong learning. Students are creating personal ePortfolio during their 1st year, filling it with artifacts within 4 years of study. Further they are developing their portfolio on the Master's level for 2 years, and for 3 years in PhD program. Otherwise Education undergraduates start developing their teacher's professional portfolio. In addition, the ePortfolio technology is used as an effective tool for accreditation procedures of academic programs, the development of e-learning and assessment of learning outcomes.

 Siberian Federal University successfully passed the accreditation of the e-learning system by the experts of the Agency for Quality Assurance in Higher Education and Career Development in 2016.
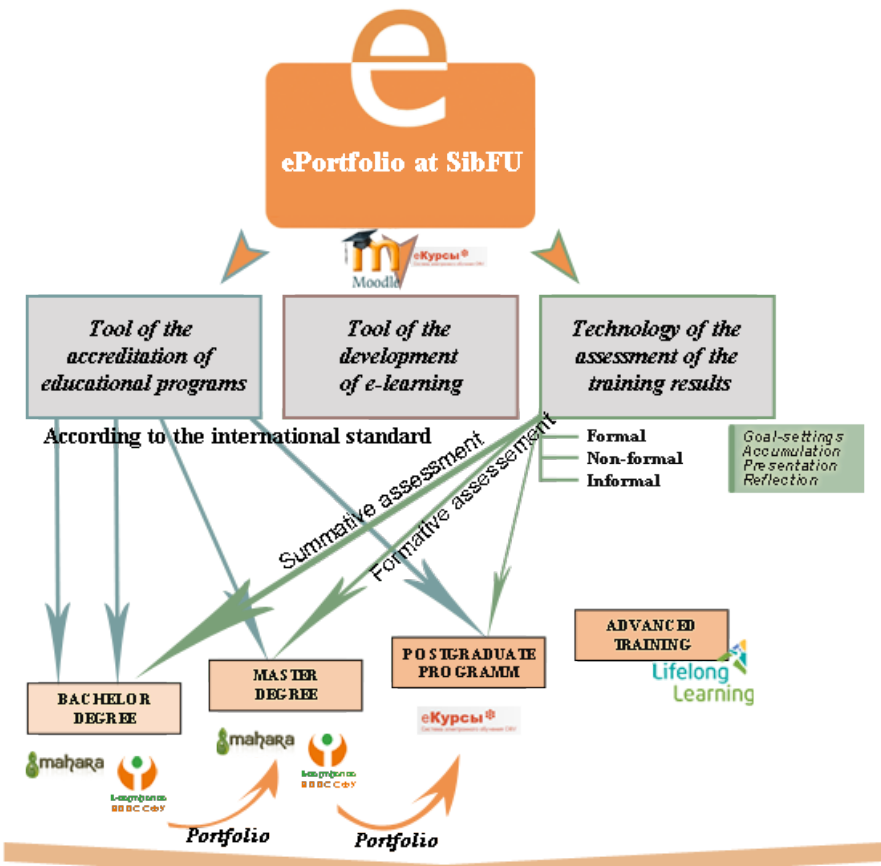
Figure2. Implementation of ePortfolio technology at SibFU

The main purposes of using e-portfolio at SEPS SibFU are: presentation, evaluation, reflection, development. Many events are performed with the use of ePortfolio in the

educational process, for example, the e-portfolio competition among students. This technology is included in the procedure of the graduation exam, for presentation to employers, for assessment of students' social activities during internships and summer schools.

If earlier portfolio was operated only by the students and professors of School of Education, Psychology and Sociology, these days it is compulsory for all the students of Siberian Federal University. In 2017 the SibFU has developed the regulation on the students' electronic portfolio. It defines the rules how to fill a portfolio with artifacts of learning, research and creative achievements for students of all specialties. The platform in which ePortfolios are created and stored is an electronic system "My SibFU". It is a private system and can't be monitored by an external user.

An example of the PhD student ePortfolio is presented below. It is published on the website of Siberian Federal University in Russian language. The main sections to fill out are the following: Achievements; Project activities; Publications; Language portfolio and other information.
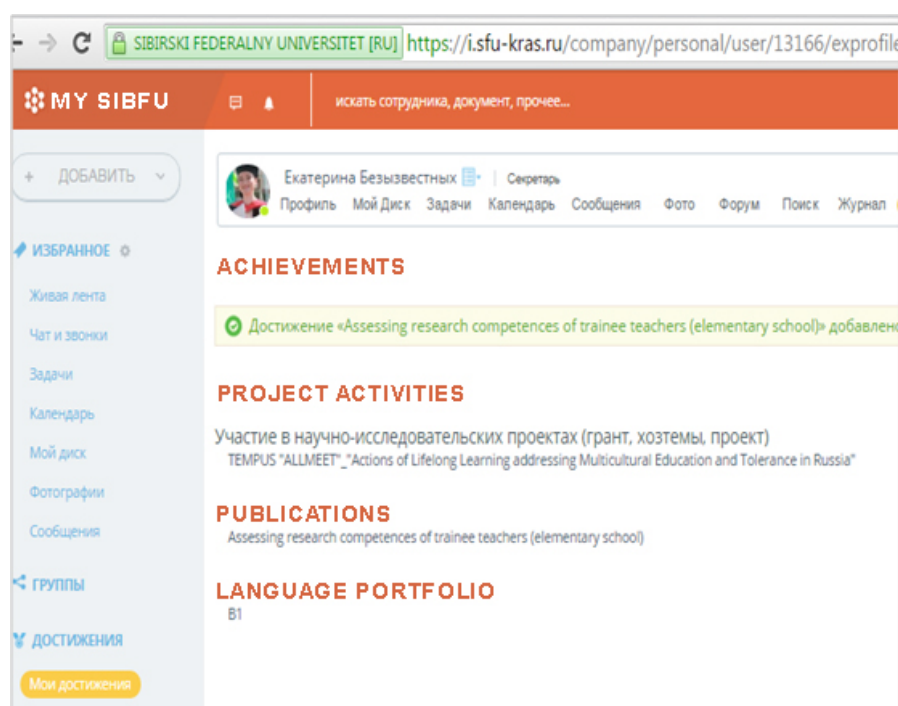
Figure3. Implementation of ePortfolio technology on the "My SibFU" portal

It means that portfolio has become an everyday formal electronic education resource. For two schools of Siberian Federal University (SEPS and School of Architecture and Design) portfolio is a unique technology for lifelong learning development and building a career.

For teachers it is an educational technology of reflection and authentic assessment of personal and professional achievements. For future architects and designers it is a possibility to accumulate and present their artworks to the professional community and building a professional career.

Siberian Federal University students develop ePortfolios in 3 platforms - on the School website, on the educational portal "My SibFU" and some educational courses require working also on the Mahara platform. It is designed in line with a paradigmatic approach and blended learning model of training.

Basic principles of blended model of teaching at the School of Education, Psychology and Sociology are the following:

- Face-to-face work combined with the work on the e-learning platform "eSFU" for the achievement of learning outcomes;

- Effective management of students' self-study with evaluation of learning outcomes;

- Permanent interaction between professors and students in "eSFU" learning environment;

- Management of a students' groups learning activities in the LMS "Moodle".

SibFU use portfolio as a tool for formative assessment and demonstration of the outcomes of formal and informal education and as a tool for professional development. The model of ePortfolio in the digital learning environment is presented below.
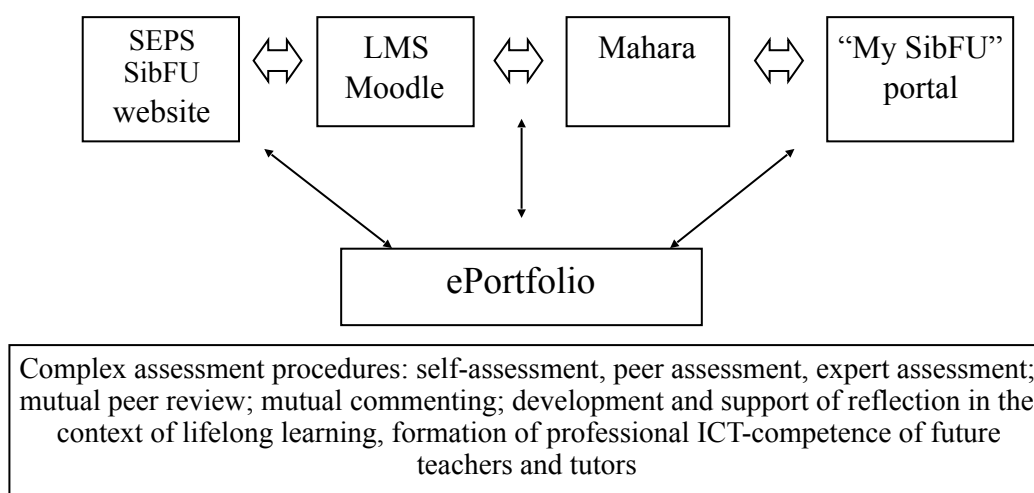
Figure 4. ePortfolio in the digital learning environment of Siberian Federal University

We can say that ePortfolio is quite a traditional and understandable educational technology for Russian students and teachers. But the Open Badges technology is unknown, not understandable and not popular among teachers and educators either at Secondary schools or at the University, neither in Russia, nor in CIS countries. We have conducted a survey on 18 professors of the SibFU and 130 students of all levels.

The results are the following: 64% of students and 83 % of teachers said they do not know about the Open Badges technology. Those who had heard anything about it, demonstrate misunderstanding of how to use Open Badges in a teaching-learning process.

But 61% of all the respondents supported the idea of the open recognition of formal and informal outcomes assessment.
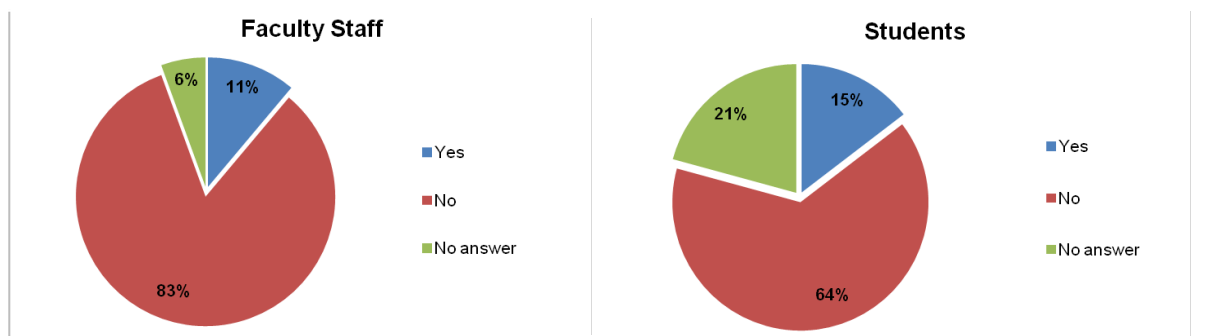
Figure 5. the results of the survey "Are you aware of the Open Badges technology?"
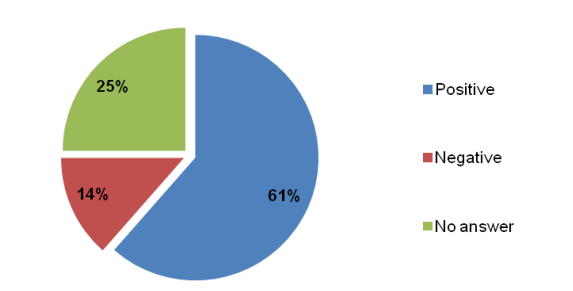
Figure 6. the results of the survey "What is your attitude to the Open Recognition of the formal and informal learning outcomes?"

School of Education, Psychology and Sociology of SibFU is the leader and provider of the open recognition of the educational outcomes and Open Badges implementation strategy. Open Badges technology at SibFU started in 2017 by including a new teaching course in a graduate program.

In the curriculum of the Master's program "Management of educational innovations", the course is implemented called "ePortfolio and open recognition of personal and professional achievements in lifelong learning". It is studied in the 1st and 4th semesters because presenting e-portfolio is integrated in the final state exam structure.

The objectives and goals of the course are:

· Development of constructive thinking, reflection, skills of effective self-presentation;

· Introducing open standards, open architecture and policy of open recognition of the lifelong and lifewide learning achievements;

· Development of instrumental skills to create personal ePortfolios on a variety of platforms.

The teaching course helps building student's cultural, general and professional competencies according to requirements of Federal state educational standards. It is referred to the research, project-developing and management professional activities.

As an educational outcome of the course, students develop a personal electronic portfolios (in 2 languages: Russian and English) with a professional CV, an individual plan of study and building a career, reflective reports, methodical materials, scientific works and other artifacts, including multimedia recourses.

The module structure of the subject is presented in the Table 1.

Modules of the discipline	Lectures (hours)	Seminars (hours)	Competencies being built
1. The methodology of an open education. Independent evaluation of the learning outcomes	2		CC-4 GPC-4
2. Open technologies and open standards. Validation of prior learning	2	2	CC-4 GPC-4
3. The methodology of using "Open Badges" in education and career development	2	2	CC-4 PC-8
4. Electronic portfolios and digital identity. Portfolio method in personal and professional development. Russian and foreign experience in ePortfolio and Open Badges	2	6	GPC-4 PC-8
5. Methods and criteria for evaluating competencies		4	CC-4
6. The basic principles of effective competencies presentation. Modeling the structure and design of ePortfolio		6	GPC-4 PC-8
7. Selection of artifacts for publication. Professional achievements description in Russian and English languages		10	CC-4
8. Business game: self-presentation, reflection and mutual assessment		6	PC-8
Total 4 ECTS (144 hours)	**0,2 (8)**	**1 (36)**	

Table 1. Teaching course "ePortfolio and open recognition of personal and professional achievements in lifelong learning" structure

Recruiting undergraduate students with the new educational paradigm of the open recognition of the learning outcomes was accomplished in the event-related environment of the International student Summer School "Intercultural Mediation in Education".

As learning outcomes of the Summer School, participants published reflective essays, projects records, certificates, letters of appreciation, reports on School cultural and educational events in their ePortfolio.

In the Summer School multi-dimensional evaluation was made, especially deliberated for the assessment of competencies built during the School. Cognitive, emotional and behavioral components of the competences were assessed. Using validated questionnaires, incoming survey, evaluated project competencies being demonstrated in the School activities; monitoring the scale of emotional feedback on School activities were made daily.
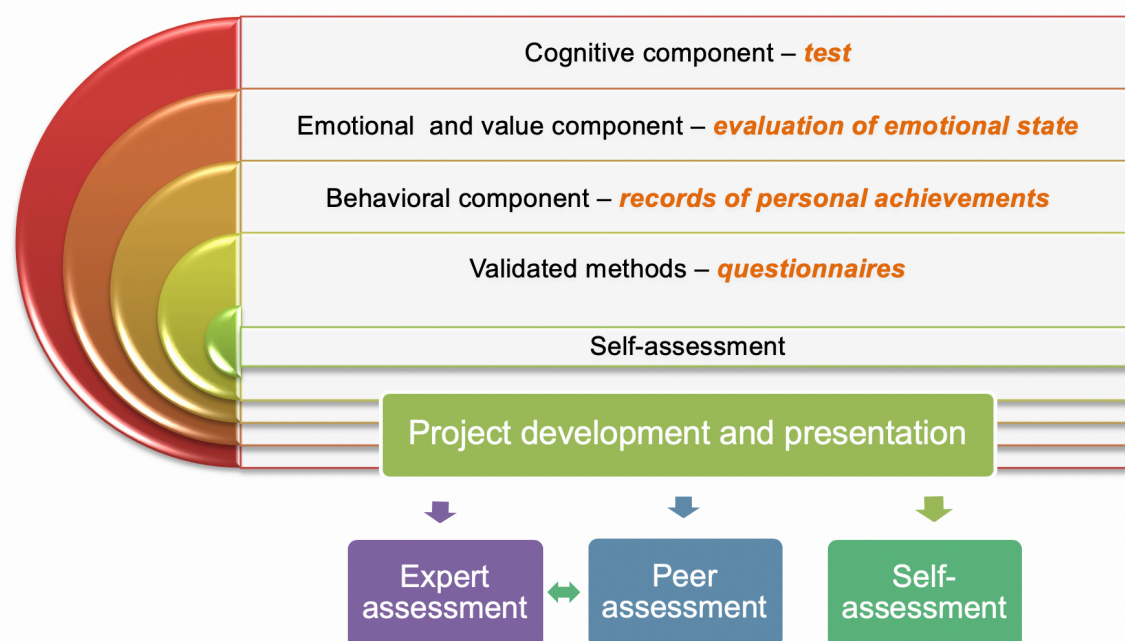
Figure 7. Assessment technologies of the International student Summer School "Intercultural Mediation in Education"

The results of the implementation of E-portfolio and Open Badges technologies are presented in a series of monographs and a number of articles. It allows to inform and discuss the topic with the wide audience as well as presentation at various international conferences. We believe that it requires specific actions to implement and disseminate the methodology of open recognition and Open Badges in Russia. Among them there are: communication and demonstration of benefits, a discussion of the risks, training and retraining faculty staff, support from employers and from the Ministry of Education and Science of the Russian Federation. At a present stage adoption of the methodology of the open recognitions of the lifelong and life-wide learning achievements appears to be essential.

References

1. Collective monograph «Practices of lifelong learning in training future teachers: multicultural context» Krasnoyarsk: SibFU, 2016. 167 p.
2. Presant, D. Recognise and share learning in a digital world. Accessed at https://cancred.ca/
3. Ravet, S. Open Badges and Quality. Accessed at http://www.learningfutures.eu/2017/08/open-badges-and-quality/
4. Smolyaninova, O. Problem of assessment of educational achievements: ePortfolio technology. Krasnoyarsk: SibFU, 2015. 144 p.
5. Smolyaninova, O. Assessment of lifelong learning outcomes: ePortfolio. Krasnoyarsk: SibFU, 2016. 362 p.

The Time for Self-Sovereign Identity is Now - Blockcerts, Decentralised Identifiers, and Verifiable Claims

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Learning Machine

NB: *this paper was presented at ePIC 2017 in Bologna*

Introduction

We are living through an historical moment in which momentum toward the unlimited collection and transferability of personal data by nation-states, industry leaders, and software providers is increasing irreversibly. Regulating this momentum from a policy standpoint will have at best limited effects so long as economic incentives and technological infrastructures collude to provide frictionless, one-way transparency into the lives of citizens, employees, customers, and learners. For this reason, any long-term solution to protect individual privacy and social agency must be technological and infrastructural, and that is precisely the opportunity now provided by the blockchain.

Chief among the possibilities afforded by the blockchain is what some have called "self-sovereign identity." In general, self-sovereign identity means that the individual has ownership over their personal data and control over how, when, and to whom that personal data is revealed.

This paper first outlines what has already been achieved in the way of self-sovereign identity and then looks toward the path ahead. Taking the Blockcerts open standard as a case study of a self-sovereign technical architecture, we begin by describing the development of Blockcerts and its synchronization with the OBI standard. Next, we chart the initiatives that are still underway: the progress toward a truly distributed identity management structure via Decentralised Identifiers (DIDs) and Verifiable Claims.

We conclude by stressing the urgency of digital self-sovereignty. Inasmuch as the blockchain affords, for the first time in history, the possibility of true individual ownership of their own data, it is a double-edged sword: it also opens the door for powerful actors to monitor and control the actions of human beings with unprecedented precision, at an unprecedented scale. We must build alternative possibilities now. Conservatism and inaction, including relying on policy-based approaches to regulate technological development, are not options; the momentum is already in place, and innovation will follow the incentives that are already at work.

The time for architecting systems according to self-sovereign principles is now. This paper describes DIDs and Verifiable Claims and building blocks in these architectures.

Blockcerts: Recipient-Owned Credentials

In 2016, Learning Machine collaborated with the MIT Media Lab to develop Blockcerts, an open standard for issuing and verifying credentials on a blockchain. A blockchain is a decentralised data storage mechanism which creates, through distributed consensus, a single ledger of transactions that serves as a record of historical events. Blockchain transactions can be used to record events such as the issuing of digital credentials, where the transactions include a data field containing a message digest (used to prove the integrity of the data). This helps overcome the problems of centralised databases, which serve as honeypots for attackers and whose data can be edited or erased by unscrupulous actors.

The aim behind Blockcerts is to give recipients ownership of their official records so that they are freed from ongoing dependency on issuing institutions — or any centralised authority — to verify their own credentials and achievements. This not only affords recipients a maximally portable, private portfolio of their own records, but simultaneously helps issuing institutions prevent fraud and misrepresentation of official documents that they issue while allowing independent parties to instantly verify the authenticity and integrity of records and credentials presented to them.

The Blockcerts standard was published under the MIT open source license in 2016 so that any institution, vendor, or researcher can use it to build their own applications for issuing and verifying claims on the blockchain. The intent behind open sourcing Blockcerts was twofold: 1) avoiding a standards war and 2) ensuring maximum portability and interoperability of records (helping to avoid vendor or issuer lock-in). Since 2016, dozens of organisations and individuals around the world have begun building on the Blockcerts standard.

Credentials in a Self-Sovereign Ecosystem

In a self-sovereign ecosystem, the recipient should control every aspect of their credentials: where they are stored, with whom they are shared, and how the recipient is identified in the credential. The latter affects several areas of recipient control: the ability to prove that the claim is about themselves, to disclose only the information they want to reveal about themselves, and subtler privacy concerns, such as whether claims about them can be correlated to other data.

The path toward a self-sovereign digital credentialing ecosystem has its roots in the Open Badges movement, which has gained significant international currency. Blockcerts, a blockchain-based credentialing standard, is architected from many of the same values that drove the development of Open Badges: interoperability, portability, and verifiability. In 2017, version 2.0 of Blockcerts was expanded to be fully compliant with version 2.0 of Open Badges. What that means is that Blockcerts is now a proper Open Badges extension (and on track for acceptance as an official extension), which adds blockchain-based verification and recipient ownership to the traditional OBI format. Anyone with an OBI 2.0-compliant wallet can use it to store Blockcerts, and the Blockcerts Wallet can be used to store and share OBI 2.0-compliant Badges.

In addition to interoperability, portability, and verifiability, Blockcerts was also designed specifically with self-sovereign digital identity in mind. For this reason, it privileges individual ownership of credentials, rather than custodianship of credentials by a software provider or

issuing institution. Blockcerts allows recipients to prove ownership of a credential directly through public/private key cryptography.

Furthering the goal of self-sovereignty, Blockcerts is also identity agnostic; that is, it takes a claims-based approach to identity, which allows organisations and recipients to employ their preferred methods for identity management. Blockcerts works with any kind of identity solution, whether that is a Facebook profile, a University account, or a Decentralised Identifier. This makes it well-suited to a model of digital engagement in which individuals may have multiple digital identities which they curate differently and employ in different contexts.

Blockcerts is currently evolving to accommodate even greater degrees of digital self-sovereignty. Most immediately, this involves both facilitating a persistent, recipient-controlled digital identity as well as data minimization. In the subsequent sections, we discuss how Decentralised Identifiers and Verifiable Claims contribute to a more self-sovereign ecosystem.

Decentralised Identifiers: A Portable, Self-Sovereign Identity

Digital identity functions through the deployment and correlation of identifiers. Under the current Blockcerts standard, recipients are identified when their pseudonymous public blockchain address is linked to a public identity (such as a social media profile or user account). However, these digital identity providers may go out of business, cease to support the recipient's profile, or leak identity data. One way to address these shortcomings is through a universal, portable identifier that does not rely on a centralised identity provider and which is owned by the individual. One model under which such identifiers are being developed is the [Decentralised Identifier (DID) specification](). Decentralised Identifiers are designed to underlie a self-sovereign approach to the management of digital identity.

Currently, Open Badges issuers typically use a hash of the recipient's email (the hash is recommended to avoid having an email embedded in the certificate in clear text) to identify recipients. Blockcerts allows recipients to make a stronger claim of record ownership through use of cryptographic ownership of a blockchain address. Both approaches have longevity and privacy concerns. The recipient's email in a credential may not be permanently available to the recipient (for example, university email addresses are customarily deactivated upon graduation). Cryptographic key management, on the other hand, is not user friendly. As a partial solution, Blockcerts introduced a certificate wallet to help the user manage their keys, but there are still practical usability concerns making it difficult to assume the recipient will retain ownership of their keys in the long term.

DIDs are an important tool for advancing the viability of self-sovereign identity. In particular, DIDs address the high barriers to entry of managing cryptographic keys. They offer cryptographic strength while factoring in the full lifecycle of keys, including expiration and revocation. This includes usability improvements such as social recovery, in which a user may specify that 3 of 5 known contacts may vouch for their identity if their device is lost.

Thus, DIDs remove many of the usability shortcomings of cryptographic key management, making it much easier for the recipient to retain ownership of their identifiers over time, and therefore, also of their associated credentials.

DIDs also give owners (both recipients and issuers) more control over when and how a digital identity is deployed. On the recipient side, DIDs used as recipient identifiers promote long-lived, and as we'll discuss in the next section, privacy-respecting credentials. Furthermore, a recipient can maintain any number of DIDs to increase their ability to curate their identity profiles and increase their privacy. This avoids a situation in which all of a person's data is tied to a single individual identity profile; instead it can be replicated as frequently or as rarely as that individual chooses.

On the issuer side, DIDs remove the requirement for issuers to host profiles that maintain a list of current and expired keys. In general, issuers hosting any data introduces a potential single point of failure during verification — for example, if the issuer site is temporarily or permanently offline. With DIDs, this information is architected to be decentralised and available at any time. This facilitates the persistence of digital identity while placing it in the hands of the user, rather than a third-party custodian.

Verifiable Claims: Taking Blockcerts to the Next Level

Verifiable claims are a lightweight format for expressing a wide range of verifiable yet privacy-preserving claims made about an individual (for example, proof of citizenship or the license to drive a car). Technically, Verifiable Claims are claims made about a "subject" (identified by a digital identifier such as a DID) that are rendered tamper proof through digital signatures. The authenticity of digital signatures may, in turn, be established through issuer identifiers, which may also be expressed as DIDs.

Verifiable Claims have already been incorporated into the Open Badges data model through endorsements. Expanding claims functionality is useful for Open Badges in several ways. Since Verifiable Claims are designed from the ground up with self-sovereign principles in mind, the developer community has a sophisticated map of the privacy problem space, which is used as a guide to resolve concerns at all levels of granularity. Privacy is, after all, not an absolute state but involves differing trade-off decisions depending on the context in which information is solicited and the nature of that information. For example, if a claim contains personal information that a recipient would rather selectively disclose to only specific parties, the Verifiable Claims ecosystem offers techniques and standards regarding data minimization.

Conclusion

It is time to evolve data management paradigms from those based on a centralised web architecture to those functioning from the decentralised web. Only in this way can individual self-sovereignty be guaranteed in a world where centralised authorities exert irreversibly amplifying control over digital infrastructures, and security breaches will only become more common. Blockchains are becoming the most rapidly adopted decentralised architectures from which secure and self-sovereign data management practices may arise. Beginning with the Blockcerts standard, recipients now have private ownership of their digital assets in a way that was not possible before. With the move toward Decentralised Identifiers and Verifiable Claims, recipients also have persistent, independent digital identities and can choose exactly when, how, and to whom they disclose any private data. As public standards, all of these specifications solve for maximum interoperability and portability of documents and data, without sacrificing privacy or individual control.

We have the building blocks required for systems based on self-sovereign principles, and it is up to us to make sure they are used in the educational, economic, and governance architectures of the coming generation.

Tools of Engagement Project (TOEP): Equipping All Learners with 21st-Century Skills

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NB: *this paper was presented at ePIC 2017 in Bologna*

Abstract

The State University of New York Tools of Engagement Project (*TOEP*) < http://suny.edu/toep > is a flipped professional development model that encourages faculty to explore and reflect on innovative and creative uses of emerging technologies through hands-on discovery activities. *TOEP* promotes lifelong learning in a digital world and provides a focused venue to experiment with the constantly evolving landscape of social media and the latest web-based technology tools.

TOEP is not traditional professional development but instead provides online access to resources for instructors to explore at their own pace through a set of hands-on, discovery activities. After participants explore a section and complete one of the activities they are prompted to reflect on their learning by posting about their experiences within a connected private social-network community. This avenue for peer support and inter-campus collaboration has resulted in a robust dialog about how the application of new tools can be used to help facilitate communication, collaboration, critical thinking, and creativity. This learning environment empowers faculty to master new technologies and helps them transfer knowledge to their students about how to effectively work with new communication and collaboration technologies.

Digital badges and other professional development award incentives are used to provide motivation for participants and complete the project requirements. Awards are issued through a peer-review process to community members who share the most innovative use of *TOEP* tools and who provide optimal levels of peer support within the online social network community. Results from recent analysis of the online community postings have shown that many participants report vicarious learning through the experiences of others in the community.

This cross-campus collaborative project has just completed its fifth year as faculty professional development. New grant funding has just been awarded to transform this successful system into a MOOC based on the *TOEP* model which will be targeted to all learners. The future of this innovative professional development model will target the needs of faculty, students, and professionals alike to provide 21st-century skills which are necessary for today's society. This session will provide an overview of the project's history and a look into how future iterations of this project will take shape.

Background and Introduction

The State University of New York Tools of Engagement Project (*TOEP*) is an on-demand discovery learning professional development model. The goal is to encourage faculty and staff to explore and reflect on the use of emerging technology tools to expand tech-infused pedagogy.

Through *TOEP*, faculty have on-demand access to a curated collection of instructional technology tools, resources, and tutorials. *TOEP* provides an opportunity for learning, anytime, anyplace, and on any device. This professional development activity allows busy instructors to take advantage of pedagogically focused technology training that they need to stay current in today's changing technological landscape. The tools showcased throughout the site have been curated by a design team, consisting of faculty, staff, instructional designers, and librarians from across the SUNY system.

The three R's, of reading, writing, and arithmetic, previously a common early acronym for what students learned in school, has been replaced with the four Cs of 21st-century skills (National Education Association, 2014), including, communication, collaboration, creativity, and critical thinking. We have moved into an era where information is ubiquitous. The skills we now need to teach students must include how to create, share, and evaluate knowledge and information. An understanding of how to effectively use emerging technology tools is critical to keep pace in today's knowledge economy. *TOEP* offers a platform to encourage faculty to enhance their own 21st-century skills and knowledge and demonstrates how to use these tools to enhance their students' abilities.

Project Structure

The *TOEP* cycle runs throughout an academic year. At the beginning of the phase, faculty are recruited by local campus-based Fellows to register as participants. Faculty then explore the *TOEP* website and complete Discovery Learning Activities. Their first activity is gaining knowledge and an appreciation for lifelong learning. The European Union's Memorandum defines lifelong learning as all purposeful learning activity, whether formal or informal, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence (Commission of the European Communities, 2000). This definition is in alignment with the lifelong learning habits promoted through *TOEP*. In today's digital age lifelong learning habits are necessary to keep pace with technology change.

After completing the lifelong learning Discovery Exercise, project participants then select and complete three additional activities that interest them from the options available. The activities focus on emerging technology tool categories, including topics such as audio, blogs, photos, presentations, productivity tools, resource libraries, simulations, social media. Each section has a narrative, and then a secondary page contains Discovery Learning resources including a variety of useful tools and supporting tutorials. After finishing each of the activities, participants post reflections about their experience, how they might integrate the technology into their teaching, and any questions they have in an online learning community. The online discussions are facilitated through the *TOEP* Google Plus Community social network platform. At the end of the year, participants post a summary about their experiences.

The project leadership team conducted a qualitative analysis of the participants' reflective summaries from the second year of *TOEP*. Three main themes appeared: (1) evidence of

immediate implementation of *TOEP* tools and specific and definitive plans to implement them. (2) an expressed desire to continue to learn more about *TOEP* tools, and/or explore more activities, even after participation has concluded. (3) vicarious learning through the experiences of others in the community.

Badge Awards

In the first year of the project traditional paper certificates were awarded to project completers. In the second year, digital badges were implemented. The badge constellation shown in Figure 1 displays the badges awarded. Every participant earns a badge for completing the lifelong learning activity. Participants receive this badge after posting a reflection into the *TOEP* community about what it means to them to be a lifelong learner. Additional badges are awarded each time a participant completes other Discovery Learning Activities and adds a reflective post to the community, for example, after exploring tools and resources about the use of audio or video participants earn an additional badge. After earning the Lifelong Learning badge, and a minimum of three Discovery Learning Activities of their choice, they then post a summary reflection about their overall experiences. After completing all the project requirements, they submit a request to claim their Mastery Badge.
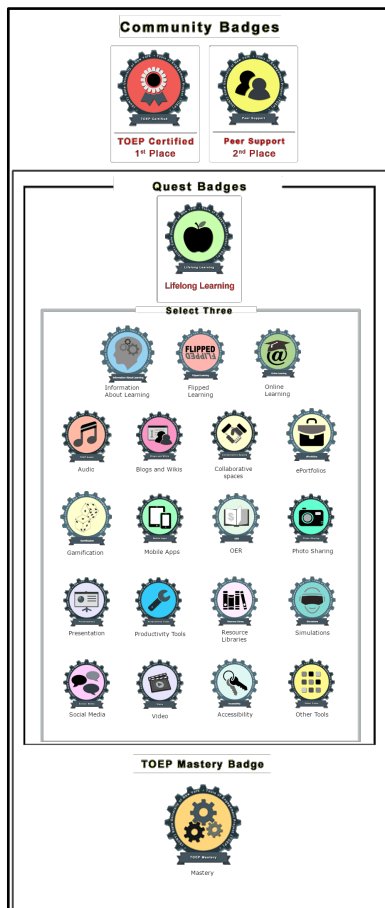
Figure 1. Badges Awarded in *TOEP*

Community badges are also awarded to participants through a peer-review process. First place awardees are selected to identify those who share the most innovative ideas about how to use the tools within teaching and learning. Additionally, second place awards are provided to participants who exhibit optimal levels of peer support within the project's online community. Conference funding and other incentives were awarded for first and second place in an attempt to motivate and encourage participants to complete the project requirements.

Figure 2 shows the distribution of the four major badges for all the phases 2 through 5 of *TOEP*. Digital badges were not integrated until Phase 2 of the project. The Lifelong Learning badge is earned after completing the first activity, which is required of all participants. Mastery is earned after participants complete all the program's requirements. The Certified and Community Peer Support badges are issued through a peer-review process. *TOEP* Certified is the first place award issued to those who shared the most pedagogically intriguing use of tools as evidenced through postings to the community. Community Peer Support badges are issued for second place to people who provided the best peer mentoring and support to other participants within the *TOEP* community.

94
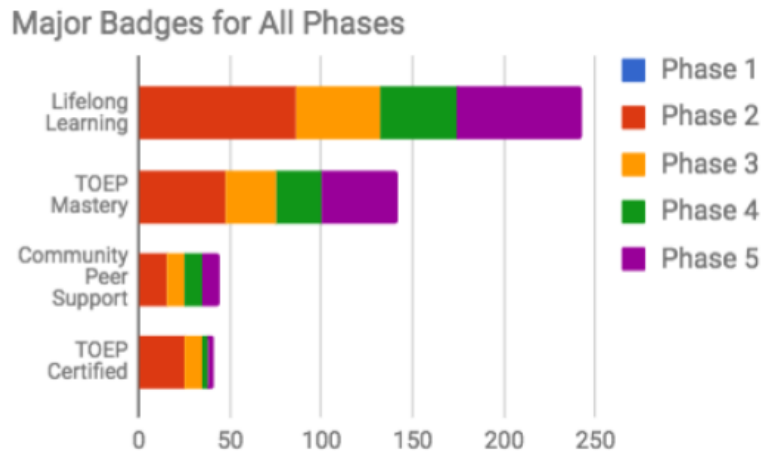
Figure 2. Major Badges in each Phase

Future Plan

Funding has been awarded through a new SUNY Innovative Instructional Technology Grant (IITG) to transform *TOEP* into a learning opportunity to benefit all learners. Instead of focusing mainly on faculty needs, a new Coursera-based MOOC is being developed for learners across the world, including students, faculty, staff, and anyone with a desire to gain 21st-century skills. Another central difference is that participants will first determine what their pedagogical objectives are and then they are guided towards the technology tools that will assist them to achieve their desired goals. The development of the Coursera MOOC is currently in progress. We look forward to examining the MOOC outcomes that result from modifications to the *TOEP* processes within this new paradigm.

References

Communities, C. of the E. (2000). A memorandum on lifelong learning. Commission of the European Communities Brussels.

National Education Association (NEA). (2014). Preparing 21st century students for a global society: An educator's guide to the "four Cs." Washington, DC.

PAPERS (French)

Décoloniser la Validation des acquis de l'expérience (VAE)

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Contexte – Raison d'être de cette contribution

Il est fréquent – notamment en Afrique francophone, et même en Haïti par exemple – d'être face à des situations où la description qui est donnée par les acteurs locaux de la validation des acquis d'apprentissages non formels et informels ressemble à s'y méprendre à la *Validation des acquis de l'expérience* (VAE) telle que pratiquée en France depuis sa loi de *Modernisation sociale* de 2002. Cette contribution met en garde contre une possible confusion entre la première qui est un concept général ayant de multiples applications – et des vertus encore méconnues – et la seconde qui est une application particulière de ce concept. On peut penser que la *Validation des acquis de l'expérience* ne voyage pas forcément très bien compte tenu du terreau dans lequel elle a grandi, qui s'est formé sur une période historique longue en France, et qui n'est pas forcément transportable. Cette contribution invite surtout – et c'est une règle universelle[27] – à ne pas forcément reproduire à l'identique les méthodes importées sans les adapter. Elle montre en effet que la *Validation des acquis de l'expérience* n'est qu'une forme particulière de validation des acquis d'apprentissages non formels et informels. Telle que pratiquée en France, l'approche est très exigeante[28]. Elle n'est donc par forcément transposable à l'identique.

Cette contribution montre pourquoi c'est en outre une forme contraignante, et affirme ainsi que la *Validation des acquis de l'expérience* à la française n'est pas forcément l'approche la plus souhaitable dans toutes les situations, dans tous les pays, et pour tou.te.s les candidat.e.s. La *Validation des acquis de l'expérience* est un excellent point de départ. Elle doit toutefois être bien comprise quant à ses tenants et aboutissants, pour qu'elle puisse être adaptée au contexte local. Il existe en effet des variantes qui offrent des perspectives plus convaincantes.

Validation des acquis d'apprentissages non formels et informels (une philosophie) ou Validation des acquis de l'expérience (une philosophie doublée d'une méthode)

La validation des acquis d'apprentissages non formels et informels est le concept général, le nom commun. Il renvoie à accepter l'idée que tous les individus apprennent partout et tout le temps, et qu'il existe de nombreux avantages à valider et donc à reconnaitre les

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acquis d'apprentissages et les compétences[29] qui en résultent. C'est une philosophie générale. Elle englobe de nombreuses options en matière de mise en œuvre pratique de ce qui est un principe général de plus en plus souvent accepté par toutes les parties prenantes de la société : on n'apprend pas seulement à l'école, à l'université ou dans un centre de formation professionnelle, mais on apprend aussi dans des contextes non-formels et informels. Il existe de nombreux travaux qui montrent, par exemple, qu'une grande partie des gestes purement professionnels sont acquis en situation de travail, hors de tout cadre formel.

La *Validation des acquis de l'expérience* telle que mise en œuvre en France est une forme particulière de cette idée, une application singulière. C'est un nom propre ; un peu comme on trouve APEL[30] au Royaume-Uni ou PLAR[31] au Canada. Pour prendre un exemple différent, la *Validation des acquis de l'expérience* est à la validation des acquis d'apprentissages non formels et informels ce que l'*Approche par les compétences* (APC) québécoise est à l'approche basée sur les compétences, un cas particulier. Toutes les approches modernes sont basées sur les compétences, l'APC n'est qu'une application particulière.

La validation des acquis d'apprentissages non formels et informels a des vertus importantes en Afrique, par exemple, où beaucoup d'individus n'ont pas pu aller à l'école, ou n'ont pas pu y aller assez longtemps, pour obtenir la certification de leurs compétences en formation initiale. Ils ont donc beaucoup de mal à accéder à des emplois, et à des emplois décents en particulier. Or, les apprentissages en situation non-formelle et informelle sont nombreux. La certification des compétences acquises en cours de vie active est donc une option étudiée avec attention dans de nombreux pays[32]. L'Afrique dispose en effet d'un important réservoir de travailleurs ayant des compétences qui n'ont pas encore été matérialisées par une certification. La validation des acquis d'apprentissages non formels et informels y représente une réelle opportunité, à condition que la méthode utilisée soit adaptée.

Pourquoi la Validation des acquis de l'expérience française est extrême

Pour montrer à quel point l'approche française dite *Validation des acquis de l'expérience* est extrême, et donc attirer l'attention sur les risques qu'il y a à l'appliquer à l'identique hors de France, cette section décrit les caractéristiques les plus spécifiques de l'approche française. Elle montre en quoi elles sont extrêmes et résume en quoi les appliquer ailleurs, sans adaptation ni ajustements à la culture locale, présente un risque.

Sans ordre particulier, le système français :

• s'est bâti sur un <u>consensus</u> social, matérialisé en partie par l'Accord national interprofessionnel qui a précédé la loi de *Modernisation sociale* de 2002, sur deux cent

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[29] Le débat sur les définitions respectives d'acquis et de compétence ne sera pas rouvert ici. On accepte le principe qu'une compétence est constituée d'un ensemble d'acquis d'apprentissage dans un contexte donné.

[30] *Accreditation of Prior Experiential Learning*.

[31] *Prior Learning Assessment and Recognition* (Petruskevich, 2002 et 2003).

[32] L'Afrique australe est particulièrement active (par exemple Malawi, Maurice, Afrique du Sud, Seychelles et Tanzanie). La SADC (*South African Development Community*) s'est dotée de lignes directrices communes (SADC, 2017).

ans d'histoire de préparation des adultes pour le marché du travail (par exemple, le principe de la multiplicité des routes vers une même certification est dans la loi française depuis 1971), et sur soixante-dix ans de pratique partielle de la *Validation des acquis de l'expérience* (depuis 1934 pour les ingénieurs, et puis successivement VAPP85 et VES pour l'enseignement tertiaire, et VAP pour les acquis professionnels[33]) ;

- a mis en place la *Validation des acquis de l'expérience* dans un contexte ou le bilan de compétences (qui ne relève pas de la validation) et la candidature libre existaient déjà, et où la notion d'équivalence a pour ainsi dire disparu ;

- permet la prise en compte de toutes les formes d'acquis d'apprentissage en VAE, quel que soit le contexte dans lequel ils ont été construits, même bien au-delà des acquis en situation professionnelle ;

- permet la délivrance d'une certification complète sur la seule base de l'évaluation lors du processus de validation, c'est-à-dire la délivrance directe d'un diplôme du ministère de l'Éducation nationale ou un titre du ministère du Travail, par exemple ;

- dispose d'un cadre législatif qui permet de le faire ; et toute personne peut se prévaloir de le Loi de 2002 du moment qu'elle satisfait les conditions d'éligibilité (un an d'expérience dans un domaine pertinent par rapport à la certification visée) ;

- impose que la VAE soit systématiquement proposée comme une option pour que la certification soit enregistrée au Répertoire national des certifications professionnelles (RNCP) ;

- ne distingue pas une certification délivrée par VAE d'une certification délivrée dans l'enseignement initial, par exemple, et les droits et devoirs des bénéficiaires sont les mêmes devant la Loi ;

- est construit comme devant permettre aux candidat.e.s d'être accompagné.e.s lors du processus de validation (le volume horaire prévu, mais non obligatoire, est de 20 heures sécables) ; et si cet accompagnement a un coût, il est souvent essentiel pour la réussite à la VAE et pour une meilleure valorisation de la certification acquise par la VAE ensuite sur le marché du travail (Recotillet et Werquin, 2009) ;

- est construit pour que l'évaluation des acquis soit menée à bien par rapport au référentiel de certification idoine, et une grande partie du travail préparatoire à la validation proprement dite consiste à apparier éléments d'expérience et contenu du référentiel, ce qui est extrêmement exigeant en termes de ressources humaines correctement formées (et qui implique que des référentiels existent) ;

- implique la maîtrise de l'écrit puisque l'approche par VAE repose sur la préparation de deux portefeuilles de compétences (Livrets 1 et 2), pour l'éligibilité puis pour l'évaluation proprement dite (le jury final n'est pas obligatoire, même s'il est presque toujours organisé) ;

- peut ne pas organiser de tests pratiques des candidat.e.s ni de vérification en grandeur nature des compétences, lorsqu'ils.elles montrent qu'ils.elles ont mobilisé les compétences inscrites au référentiel dans leur pratique antérieure ; ils.elles ne sont alors évalué.e.s que par rapport à leur portefeuille de compétences (Livret 2), ce qui peut en laisser beaucoup sceptiques et demande une grande maturité du système et des ses parties prenantes ;

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[33] Respectivement validation des acquis professionnels et personnels de 1985, validation des acquis professionnels (1992), et validation des études supérieures. Voir Werquin (2012b) pour plus de détails.

- permet que le jury de VAE délivre des certifications partielles, qui sont à la fois des preuves de compétences – pour le marché du travail – et une porte ouverte vers la certification complète, sous réserve que l'offre d'éducation et de formation soit organisée de manière modulaire pour permettre de n'acquérir que les acquis identifiés comme manquants (ce qui est rarissime sur la Planète, et qui est un frein notoire à une expansion réussie de la validation des acquis d'apprentissages non formels et informels en général) ; et
- requiert que les candidat.e.s puissent documenter leurs acquis (par exemple : contrat de travail, attestation de participation à une formation), ce qui nécessite une culture du papier, voire une confiance dans les documents présentés à l'appui d'une candidature.

En résumé, la *Validation des acquis de l'expérience* française est exigeante, et tous les pays ne sont pas forcément prêts pour la mener à bien. Elle est très exigeante techniquement parce qu'elle demande que des référentiels existent (ou qu'ils soient rédigés à dessein), qu'un personnel formé soit disponible pour l'accompagnement, et que des ressources existent. Dans certains pays, elle demande un cadre législatif qui est en gestation depuis de longues années, et annoncé comme incessant, mais que personne ne voit jamais poindre. Tout ceci reste rare.

En outre, et peut-être surtout, toutes les sociétés ne sont pas forcément prêtes à accepter que les certifications (diplômes) délivrées en VAE soient rigoureusement les mêmes que celles délivrées dans le système initial et formel d'éducation et de formation. Même s'il y a validation technique – par des évaluateurs du monde de l'éducation par exemple – cela n'engendre pas forcément reconnaissance sociétale (Werquin, 2014) – par les employeurs et les familles notamment. Le choc culturel est parfois encore trop important.

Enfin la condition d'éligibilité, c'est-à-dire les preuves à apporter pour avoir le droit d'être candidat.e, est peu crédible ; même en France du reste. Croire qu'un an de pratique, quel que soit le domaine, confère les compétences correspondantes, relève assez largement de l'illusion. La disposition originale de 2002 en France était de trois ans. Même si c'est un peu plus convaincant, l'approche reste peu pertinente : la philosophie de la VAE renvoie à l'évaluation d'acquis d'apprentissage et de compétences, plutôt qu'à une activité attestée dans un secteur donné pendant une période donnée. En outre cette condition empêche de changer de secteur professionnel, ce qui peut être un des objectifs des candidat.e.s à la VAE. Enfin, peu de pays disposent d'un système de traçabilité des acquisitions passées de compétences. Les attestations de formation, voire même les contrats de travail, sont peu utilisées et beaucoup de candidat.e.s potentiel.le.s, en Afrique notamment, sont dans l'impossibilité matérielle de documenter leurs activités passées, sans même parler de les prouver. Il y avait là une opportunité de se distinguer de l'approche française, peu satisfaisante de toutes manières sur le fond, en organisant par exemple une évaluation initiale légère (par des professionnels par exemple).

Quelles sont les alternatives et pourquoi peuvent-elles être plus pertinentes ?

Contrairement à la croyance dénoncée ici, la validation des acquis d'apprentissages non formels et informels ne se réduit donc pas à une application unique. Elle se décline selon les besoins et le contexte, et un travail initial incontournable est d'énoncer et de comprendre ces besoins et contexte. Cette section décrit les alternatives possibles à une approche pure par *Validation des acquis de l'expérience*, et explique en quoi elles sont pertinentes dans

certains contextes, et souvent plus souhaitables parce que plus douces et plus adaptées parce que moins en rupture avec les pratiques locales. En fait, aucun des choix faits en France n'est une condition nécessaire à la mise en place d'un système de validation des acquis d'apprentissages non formels et informels.

Il existe une multitude d'approches et il n'est pas possible de rapporter ici toutes les versions possibles. Cela peut aller des acteurs en charge, à la nature des acquis d'apprentissage qu'elles acceptent pour évaluation, à la méthode d'évaluation et aux résultats de cette évaluation, par exemple. Cette section revient sur ces deux derniers points.

Les méthodes d'évaluation sont nombreuses, par exemple :

* observation en milieu professionnel (pour ceux qui ont un emploi) ;
* simulation d'un milieu professionnel (en centre de formation par exemple) ;
* examens écrits (pour la validation en milieu universitaire typiquement) ;
* entretiens oraux ;
* tests divers ;
* portefeuille de compétences (et notamment les approches modernes avec des photographies, des vidéos, ou des objets fabriqués) ; et/ou
* un panachage d'une partie de ces approches.

Les candidat.e.s qui réussissent peuvent se voir attribuer, toujours par exemple :

* une exemption des prérequis académiques pour accéder à un programme d'étude ou de formation dans le système formel (typiquement pour accéder à l'enseignement tertiaire) ;
* une exemption d'une partie du programme d'étude ou de formation ;
* des crédits pour la délivrance d'une certification ;
* une certification partielle ;
* une certification complète ; et/ou
* un certificat de compétences à valoir sur le marché du travail, par opposition au système d'éducation et de formation, dans une branche, un secteur, une entreprise, ou une région donnée.

Ce dernier point mérite d'être quelque peu développé. En effet, comme la VAE française peut aller jusqu'à la certification complète, les candidat.e.s qui réussissent bénéficient doublement de la VAE. Cette double valeur vient du fait que, avec cette certification nouvellement acquise, ils.elles peuvent aller/retourner sur le marché du travail, et ils.elles peuvent aussi s'engager dans des études (une première fois, ou pour une reprise d'études). Toutefois, le travail de terrain sur tous les continents montre clairement que ce qui importe aux candidat.e.s potentiel.le.s c'est souvent de trouver [vite] un emploi décent, et que reprendre des études n'entre que pour très peu dans leur projet. Si la certification complète a des vertus, notamment parce qu'elle laisse toutes les options ouvertes, c'est sans doute en cela que l'approche française est la plus extrême. Peu de pays non francophones ont fait le choix d'aller jusqu'à la délivrance d'une certification complète. Si cela peut être une option, le système ne doit sans doute pas être construit pour cet objectif. Il y a une différence entre le permettre, sous certaines conditions, et en faire le point central sur lequel est articulé le système dans sont entier. En effet, le risque est important car obtenir une certification, pour des candidat.e.s qui auraient surtout acquis leurs compétences dans des

contextes autres que formels, est une entreprise difficile, voire très difficile ; et les exemples sont légions. Souvent les candidat.e.s ne sont par habitué.e.s à l'évaluation, et n'ont pas les codes de fonctionnement des systèmes éducatifs par exemple. Or placer en situation d'échec des individus qui ont fait le pas considérable de se soumettre à une évaluation – là encore les exemples sont nombreux d'abandon la veille de l'évaluation – serait très préjudiciable. La probabilité qu'ils.elles deviennent des apprenant.e.s assidu.e.s tout au long de la vie devient très faible. La décision de mettre en place une approche par *Validation des acquis de l'expérience* à la française doit être intimement liée aux objectifs avérés des candidat.e.s potentiel.le.s. Pour ceux qui cherchent juste à travailler, un certificat de compétences – sous forme de badge ou de carte de travail – peut s'avérer largement suffisant ; ce qui simplifie et accélère d'autant la mise en place d'un système pour valider les acquis d'apprentissages non formels et informels.

Adopter, sans l'adapter, la VAE à la française est clairement une approche confortable pour les décideurs. Elle permet de bénéficier de la longue expérience acquise en la matière, et de minimiser le travail préparatoire. Toutefois, adopter la VAE clef en main ne peut pas être sans risque, tout comme l'APC clef en main n'a pas toujours convaincu, et comme les cadres de certification clef en main ne convaincront pas.

Remarques et perspectives

La *Validation des acquis de l'expérience* telle que pratiquée en France est non seulement une application particulière de la validation des acquis d'apprentissages non formels et informels mais c'est une application exigeante, notamment en termes de ressources et d'investissement personnel de la part des candidat.e.s. Toutefois, il n'y a pas de bonne ou de mauvaise approche de la validation des acquis d'apprentissages non formels et informels. Il n'y a que des approches qui répondent aux besoins et tiennent compte du contexte, ou pas. Le point qui unifie toutes les approches possibles et qui permet de parler de reconnaissance des acquis d'apprentissages non formels et informels est, sans aucun doute, la présence d'une évaluation de qualité. Tout le reste est flexible et peut faire l'objet d'aménagements locaux. Toutefois, aucun système ne peut transiger sur l'évaluation car il faut des années pour construire la réputation d'un système et quelque mois pour la détruire. Une évaluation de qualité permet de rassurer les utilisateurs finaux – par exemple les employeurs (Werquin, 2012) – et de contribuer à développer l'estime de soi et la confiance chez les candidat.e.s. La démarche qualité en matière d'évaluation permet de faire abstraction du fait que la façon dont les acquis d'apprentissage ont été construits (les intrants) n'est pas connue, et que ce qui compte c'est ce que le ou la candidat.e sait et sait faire (les acquis). L'évaluation est au cœur de toute démarche de validation des acquis d'apprentissages non formels et informels et c'est cela qui permet de la définir : une évaluation non soumise à des critères académiques ou autre. De ce point de vue, l'approche française peut permettre de constituer un cadre de réflexion car elle montre explicitement que différents modes d'évaluation peuvent conduire au même résultat, ici la même certification. C'est sans doute cela qui constitue la principale originalité de l'approche française : il existe plusieurs routes vers la même certification. Les procédures d'évaluation varient mais le résultat final est le même. Ceci est clairement dû au fait que ce sont les mêmes référentiels qui sont utilisés dans toutes les procédures d'évaluation.

Certains pays, si ce n'est tous, ont besoin de mettre en place des approches pour valider et reconnaitre les compétences acquises hors des circuits formels exemplifiés par l'école, le

centre de formation professionnelle, ou l'université. L'approche française de type *Validation des acquis de l'expérience* a le mérite d'exister et donc de proposer une solution de type « clef en main » aux décideurs des pays intéressés ; par exemple parce qu'une fraction de leur population disposerait de compétences non encore reconnues. Si transposer la *Validation des acquis de l'expérience* à l'identique dans un autre pays est confortable parce qu'elle permet de minimiser le travail conceptuel préparatoire, l'approche française a des inconvénients, notamment parce qu'elle est consommatrice de ressources (pour l'accompagnement et l'évaluation par exemple), et qu'elle est extrême puisqu'elle est construite pour aller jusqu'à la délivrance d'une certification complète. En outre, dans l'approche française, c'est rigoureusement la même certification qui est délivrée aux candidat.e.s qui ont réussi en VAE, ce qui demande que la société soit prête à l'accepter. La validation est technique, elle est facile. La reconnaissance sociétale est beaucoup plus longue à obtenir, elle se mérite.

Références

Abriac D., 2016. Dispositif académique de validation des acquis : nouveau recul du nombre des diplômes délivrés par la VAE en 2015, *Note d'information* n° 39, décembre, Depp.

Recotillet Isabelle and Patrick Werquin, 2009. « The French VAE: Recognition of Non-formal and Informal Learning as a Visa for a Job? », *European Journal of Vocational Training*, N° 48, 2009/3.

Petruskevich, Lori, 2002. *Saskatchewan Learning Prior Learning Assessment and Recognition Enhancement Funding Initiative: A Progress Report*. Saskatchewan Labour Force Development Board; Regina.

Petruskevich Lori, 2003. *Saskatchewan Learning Prior Learning Assessment and Recognition Enhancement Funding Initiative: Final Report*. Saskatchewan Learning, Regina.

Prost-Dambélé S., 2016. Validation des acquis de l'expérience dans les établissements d'enseignement supérieur : la baisse se poursuit en 2015, *Note d'information* n° 25, septembre, Depp.

SADC, 2017. "Guidelines for Recognition of Prior Learning (RPL) in the *Southern African Development Community* (SADC)", le Bureau international du travail et la SADC, Gaborone. (Dernière consultation le 31 janvier 2019 : www.saqa.org.za/docs/webcontent/2017/SADC%20RPL%20Guidelines.pdf)

Werquin Patrick, 2012a. "The Missing Link to Connect Education and Employment: Recognition of Non-formal and Informal Learning Outcomes", *Journal of Education and Work*, Volume 25, Number 3, July, pp. 259-278(20)

Werquin, Patrick, 2012b. Enabling Recognition of Non-formal and Informal Learning Outcomes in France: the VAE Legislation, *SAQA Bulletin*, Special issue on "Recognition of Prior Learning in South Africa: Taking RPL to Scale", Vol. 12, number 3, pp. 55-116. (Dernière consultation le 31 janvier 2019 : www.saqa.org.za/docs/bullet/2014/bullvol12_3.pdf)

Werquin Patrick, 2014. « Sans reconnaissance, la validation des acquis des apprentissages non formels et informels n'est rien », *Éducation Permanente*, numéro 199/2014-2.

Pour en savoir plus

Boutinet Jean-Pierre, 2009. L'ABC de la VAE, Toulouse : Editions Eres, 263 p.

Coles Mike and Patrick Werquin, 2007. *Qualifications Systems: Bridges to Lifelong Learning*, OECD Publishing, 282 p. (Dernière consultation le 31 janvier 2019 : www.oecd.org/edu/innovation-education/qualificationssystemsbridgestolifelonglearning.htm)

Dares-Résultats, 2017. La validation des acquis de l'expérience en 2015 dans les ministères certificateurs, juin. (Dernière consultation le 31 janvier 2019 : https://dares.travail-emploi.gouv.fr/IMG/pdf/2017-038v2.pdf)

Petruskevich Lori and Patrick Werquin, 2019. Holistic Portfolio Development: The Potential for Migrant Integration. Considerations for Policy Makers. (Soumis à *Orientation scolaire et professionnelle*).

Werquin Patrick, 2007. "Moving Mountains: Will Qualifications Systems Promote Lifelong Learning", *European Journal of Education*, Vol. 42, No. 4, p. 459-484. (Dernière consultation le 31 janvier 2019 : http://onlinelibrary.wiley.com/doi/10.1111/j.1465-3435.2007.00327.x/abstract)

Werquin Patrick, 2008. "Recognition of Non-formal and Informal Learning in OECD Countries: A Very Good Idea in Jeopardy", *Lifelong Learning in Europe*, 3 2008, p. 142-149.

Werquin Patrick, 2010. *Recognising Non-formal and Informal Learning: Outcomes, Policies and Practices*, OECD Publishing, Paris, 91 p., (Dernière consultation le 31 janvier 2019 : www.oecd.org/document/29/0,3343,en_2649_39263294_44870941_1_1_1_1,00.html)

Werquin Patrick, 2010. *Recognition of Non-formal and Informal Learning: Country Practices*, OECD, Paris, February, 65 p. (Dernière consultation le 31 janvier 2019 : www.oecd.org/dataoecd/22/12/44600408.pdf)

Werquin, Patrick, 2012. A Second Chance for Qualification: An Interview by A. Mandell and N. Travers, *PLA Inside Out: An International Journal on Theory, Research and Practice in Prior Learning Assessment*, Vol. 1, number 2. (Dernière consultation le 31 janvier 2019 : www.plaio.org/index.php/home/article/view/35/62)

Werquin Patrick, 2014. "Recognition of Non-formal and Informal Learning Outcomes to Connect Non-formal and Informal Learning, Vocational Education and Training and Qualifications Frameworks: Policy Tools for Policy Makers", in *Handbook of RPL: Research and Practice*, NIACE Publishing.

Werquin Patrick, 2014. Recognition and Certification of Informal and Non-formal Learning Outcomes (in the Informal Economy), Contribution to the GIZ Toolkit on Skills Development in and for the Informal Economy. (Dernière consultation le 31 janvier 2019 : https://www.giz.de/expertise/html/12702.html)

Werquin Patrick, 2015. "The French System of Validation of Non-formal and Informal Learning Outcomes", in Burger T., M. Harring and M. D. Witte (Eds.), *Handbook for Informal Learning: Interdisciplinary and International Perspectives*, Juventa Publishing House.

Werquin Patrick, 2015. "International Perspectives on Informal Learning", in Matthias Rohs (Ed.) *Hanbook on Informal Learning*, Springer. (Dernière consultation le 31 janvier 2019 : http://link.springer.com/referenceworkentry/10.1007/978-3-658-06174-6_4-1)

Werquin Patrick, 2016. "Concepts, Definitions, Challenges"; Chapter 3.2, and "Policy Learning From International Practices"; Chapter 8.1, in Rebekka Knudsen (ed.) *Perspectives on Skills: An Anthology on Informally Acquired Skills in Greenland* (Dernière consultation le 31 janvier 2019 : https://pure.au.dk/ws/files/107172693/Perspectives_on_skills.pdf)

Werquin Patrick, 2017. Malawi: Situation Analysis and Development of Recognition of Prior Learning (RPL) Guidelines aligned with the South African Development Community (SADC) Guidelines; International Labour Office (ILO), Lilongwe.

Reconnaissance

Claire Héber-Suffrin[34]

C'est à partir de mes expériences d'enseignante, de mes pratiques, recherches et formation dans les Réseaux d'échanges réciproques de savoirs® que je vais développer quelques-unes des attentions qui peuvent faire avancer sur la question de la reconnaissance et des reconnaissances.

Première attention
La reconnaissance comme a priori d'un projet

La reconnaissance est nécessaire comme a priori à tout projet, toute démarche, tout outil, qui affirme vouloir des effets de reconnaissance.

Je prends l'exemple des réseaux d'échanges réciproques de savoirs® dont les trois affirmations de principe sont des **a priori de reconnaissance**.

- Un postulat. Tout un chacun est porteur de savoirs et d'ignorances, beaucoup plus qu'il ne le sait et le croit, beaucoup plus que la société ne le sait et ne le croit.
  Autre choix nécessaire a priori (que l'analyse complexe vérifiera) : considérer ces savoirs comme incommensurables (ils le sont pour de multiples raisons, la force du désir d'apprendre, les chemins d'apprentissages vécus, les relations qui les ont permis, les pouvoirs qu'ils donnent, leur complexité comme savoirs, leurs liens avec d'autres savoirs…) ! Considérer les prises de conscience de ces ignorances, de ces manques comme des richesses : cette prise de conscience peut être vécue comme un double signe, fais à soi, « Tu peux donc essayer d'apprendre », fais à autrui : « J'ai besoin de toi pour m'accompagner ».

- Une invitation. Tout un chacun est invité à offrir de partager ses savoirs, à considérer, sans a priori, que d'autres peuvent apprendre ce qu'il a été capable d'apprendre, qu'il peut être accompagné pour le faire. Tout un chacun est invité à chercher à apprendre ce qu'il désire apprendre, ce qu'il a besoin d'apprendre, et à considérer, a priori, qu'un autre peut l'y aider.

- Une mise en action, en mouvement de soi avec et vers l'autre. Tout un chacun peut accompagner et être accompagné, tutoré et être tutoré, transmettre et apprendre, à transmettre et apprendre à apprendre… Le croire a priori est une des conditions de réussite de ces actes ! À chacun d'en trouver, en lui et avec les autres, les moyens, les chemins, les forces... Cet a priori-là est d'une grande exigence personnelle. C'est à chacun de nous (et en particulier à ceux qui professent d'accompagner autrui dans ses apprentissages) de combattre ses propres a priori négatifs (nous en avons tous !). Ce

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Titulaire d'un doctorat en psychosociologie des groupes en éducation et en formation, elle est auteur et coordinatrice d'ouvrages sur les réseaux d'échanges réciproques de savoirs, la classe coopérative, la réciprocité pour apprendre et ses outils, les savoirs comme biens communs, l'organisation en réseau du point de vue pédagogique, éducatif et citoyen.

n'est pas à ceux et celles qui en sont le plus souvent les victimes de « prouver » qu'ils sont dans la norme, de nous prouver le non-sens de l'a priori qu'ils subissent !

<div style="text-align: center">

Deuxième attention
La reconnaissance nécessaire dans les « fondements » d'un projet

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La reconnaissance devra être présente dans les fondements d'un projet, d'une démarche, de situations qui veulent la promouvoir.

Voici comment elle l'est dans les trois pôles fondateurs des Réseaux d'échanges réciproques de savoirs® ou d'une démarche d'échanges réciproques de savoirs en réseaux ouverts.

1. **Il s'agit d'apprendre et transmettre, il s'agit de savoirs**

   • Ce projet et, cette démarche s'intéresse à tous les savoirs (qui respectent la personne et la paix entre les humains) « de » tous ; considèrent que ces savoirs sont de droit « pour » tous ; que des transmissions peuvent être effectuées « par » tous. Que tous peuvent apprendre à le faire. Ce sont les champs, les niveaux, les modalités… qui différeront !

   • *A priori* d'égalité : nos savoirs étant le résultat de nos apprentissages sont des preuves que l'on a tous pu et su apprendre. Pas tout, évidemment !

   • Nos savoirs nous donnant du pouvoir sur nous-même et dans la société sont des chances, à partager.

   • Nos savoirs étant reliés à d'autres savoirs peuvent être des tremplins de nouveaux apprentissages.

   • Les savoirs sont des biens communs… Pour qu'ils le soient dans la réalité et pas seulement dans les choix et les convictions, il est nécessaire de les partager.

2. **Une réciprocité à trois dimensions**

   • **Réciprocité relationnelle**. Tout un chacun est en droit de pouvoir donner et recevoir.

   • **Réciprocité générale ou contributive**. Tout un chacun est en droit d'apporter sa contribution positive au bien commun, à la société dont alors il se sait membre et de recevoir d'elle les ressources dont il a besoin pour y vivre dignement.

   • **Réciprocité formatrice**. En partageant ses savoirs, on les renforce et on les élargit. En étant chercheur de savoirs, on se donne plus de chances de réussir ses apprentissages et on renforce l'accompagnateur.

3. **En réseaux ouverts**

   • Faire de la diversité une chance.

   • Apprendre à se constituer un réseau social où puiser les savoirs dont on a besoin, à alimenter de ses propres savoirs.

   • Faire de l'ouverture une occasion de grandir, de s'épanouir, de découvrir sa propre complexité.

- Chacun est centralement intéressant par ce en quoi il est centralement intéressé.

- Chacun peut s'intéresser à ce qui intéresse les autres s'il est lui-même reconnu dans ses intérêts, cheminements, expériences, questionnements…

- Etc.

> **Troisième attention**
> **La reconnaissance à toutes les étapes de la mise en œuvre d'un projet, d'une démarche, d'un processus d'apprentissage…**

Elle sera un « fil conducteur », un des fils rouges (ce qui rend si solide la corde du marin) du processus d'apprentissage, de la mise en œuvre des situations d'apprentissages proposées…

Explorons le processus coopératif (l'ingénierie des apprentissages) des Réseaux d'échanges réciproques de savoirs® pour y déceler des acceptions, des dimensions et des effets de la reconnaissance.

Explorer ses savoirs et ses manques (ses ignorances).

Et le faire coopérativement. Chacun, en interactions avec d'autres[35], est invité à chercher ce qu'il sait, ce qu'il a appris, ce qu'il ignore… et à écouter les autres qui en font tous autant, à se laisser inspirer par les autres.

Reconnaissance

= *se connaitre à nouveau !* Autrement, plus amplement, dans différentes dimensions de soi, porteur d'histoire, de savoirs et de capacités, de possibles, de relations.

= *Se reconnaitre soi-même !* Comme ayant été capable d'apprendre et pouvant encore l'être.

= *Reconnaitre autrui !* Au-delà des représentations a priori et des classifications reçues socialement.

= *Connaitre l'autre à nouveau !* J'entends ces enseignants à qui je proposais la démarche, ils se connaissaient pourtant bien et, en quelques minutes, ils se découvraient « autres » ! « C'est magique, ont-ils affirmé.

= *Reconnaissance/identification !* Liée à la situation de parité proposée, fondée sur le postulat que tout un chacun est porteurs de savoirs et d'ignorances. Une fillette de huit ans, dans une école primaire mettant en œuvre cette ingénierie pour une matinée : « C'est la première fois de ma vie que je me demande ce que je sais ». Magnifique !

Nommer ses savoirs[36]

Pour que la reconnaissance corresponde à une réalité vécue et concrétisée, qu'elle soit éprouvée par chacun et, de ce fait, apprise, pour qu'elle soit partagée (chacun écoutant les

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[35] Situations proposées dans : Claire Héber-Suffrin (coordination), Des outils pour apprendre par la réciprocité, Chronique sociale, 2016.

[36] Etape quasi consubstantielle au repérage

autres dire leurs savoirs et leurs ignorances sans honte), il nous faut à tous des mots, parfois les mots des autres. Il s'agit de reconnaitre les mots des autres, sans les y enfermer.

Une institutrice de CE1 demande à ses élèves de dire ce qu'ils savent. « Je sais ''les plus'' », dit un enfant. Aurait-il su qu'il savait si elle leur avait posé la question de l'addition ? Mais il lui faut maintenant apprendre le mot « addition ».

Cette étape-là permet de se re/nommer, en mouvement et non à une place prédéterminée par le social dans lequel on a vécu ou on vit. Pour certains, non plus comme « en difficulté » mais comme excellent en « … ». Pour cela, tous les savoirs peuvent être conçus comme tremplins vers des apprentissages scolaires. Il est re/nommé pour sa compétence en origami (chemin vers la géométrie) ou en danse (chemin vers la maitrise de soi, le rythme…).

Reconnaissance-renommée37 !

Décrire ses savoirs

Temps de travail collectifs et individuels qui aident à penser les savoirs comme complexes, comme tissus de savoirs. Farès, élève de Grande section de maternelle, décrit très précisément son savoir-faire une décoration de noël en décomposant différentes opérations de motricité fine et même de début d'abstraction : découper un morceau de papier à la taille du marron, déposer le marron au centre du papier, faire attention à la proportion (évidemment, il n'utilise pas le mot) entre la taille du marron et le papier, envelopper le marron, enrouler le papier aux deux extrémités... Ce dialogue pédagogique a aidé Farès à conscientiser son apprentissage et à le transmettre à un camarade en utilisant le vocabulaire précis des opérations effectuées. Non seulement il était fier de lui, mais aussi admiré par ses camarades.

Reconnaissance-admiration ! Chacun apprend à savoir admirer celles et ceux qui ont été des repères, celles et ceux qui montrent, par leur façon d'être et de faire, des chemins possibles pour d'autres, ceux qui dévoilent leur complexité et la complexité de leurs savoirs.

Formuler des offres et demandes de savoirs

• <u>Demander</u>. Se constituer « chercheur de savoirs », penseur de ce que l'on veut, de ce qu'est un savoir, du social dans lequel on peut le chercher, de la façon de le demander. Se projeter à partir de la pensée de ce que l'on ne sait « pas encore ». Penser à l'utilité d'apprendre.
C'est se reconnaitre soi-même ! Avec « justesse ». Éviter ainsi les maladies de la reconnaissance : « avoir la grosse tête », être en recherche infinie de reconnaissance, être arrogant satisfait de soi-même…. Personne ne sait tout, ne pas savoir est normal ! Prendre conscience de ses manques ouvre à l'apprentissage et à la réciprocité, la coopération, l'entraide. Pour celui qui n'a pas eu son compte de regards positifs, il lui faut apprendre à être reconnu ! Avec ses forces et ses vulnérabilités, y croire sans « se croire » plus que les autres !

• <u>Offrir</u>. Penser ce que l'on sait mais comme de droit aussi « pour » l'autre, possible pour l'autre. Penser l'autre comme capable d'apprendre ce que l'on a pu et su apprendre ! Reconnaissance et parité relationnelle sont alors sources et effets de la coopération et de

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37 Ce que Luc Boltanski et Laurent Thévenot appellent le monde de la renommée : De la justification : les économies de la grandeur, Gallimard, 1991.

l'entraide. Reconnaissance de ce que chacun peut contribuer à la réussite des autres. Nous sommes à la fois les mêmes et radicalement différents. Singularités reconnues et coopérations se génèrent mutuellement.

Reconnaissance réciproque en actes !

S'interroger seul et avec d'autres sur « Apprendre » et sur « Transmettre »

Chacun apprend à reconnaitre la singularité de chacun des autres mais aussi différents chemins d'apprentissages, à se reconnaitre ensemble dans la paysage pédagogique, éducatif, cognitif, culturel… à sa disposition. Chacun apprend à reconnaitre et à comprendre les situations qui sont « bonnes » pour lui et les autres. À considérer ses histoires d'apprentissages et celles des autres comme sources de compréhension de soi, des mécanismes d'apprentissage et de transmission, de ce qu'est la construction des savoirs… Et comme source de reconnaissance de soi et des autres. Chacun peut aussi apprendre à reconnaitre que l'hétérogénéité peut être une chance pour chacun et tous, et surtout à en faire une chance !

Chacun comprend mieux ce qu'il est, ce que vivent les autres, ce qu'est le monde qu'il entoure, ce qu'est la société qu'il souhaite faire et vivre. Comprendre, c'est savoir aller de l'avant, selon la « définition » proposée par Ludwig Wittgenstein[38] de la compréhension.

Reconnaissance/identification !
Reconnaissance/singularisation !

Exposer (socialiser) ses offres et ses demandes

Les offres et demandes, singulières même si elles se ressemblent, prennent valeur (force de vie) en étant exposées oralement et visualisées techniquement pour que chacun se situe dans cette dynamique, s'y découvre intéressant pour les autres, voit les autres s'intéresser à lui, comprenne qu'il est irremplaçable pour construire le Commun[39].

Reconnaissance socialisée !
Reconnaissance/renommée !
Reconnaissance réciproque !

Reconnaissance par le système scolaire, reconnaissance de celui-ci parce qu'il œuvre à la reconnaissance de chacun.

Construire ensemble les séquences d'apprentissages

Lorsque des offres et demandes pourraient correspondre, les personnes concernées se mettent en relation (le réseau, par ses animateurs, organise la rencontre) pour construire ensemble les situations qui vont favoriser leurs apprentissages réciproques.

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[38] Cité par Zygmunt Baumann, L'Âge de la régression, Editions Premier parallèle, 2017, p 51.

[39] Là aussi, on aura intérêt à voir les outils déjà expérimentés. La préoccupation des pédagogues de l'ICEM d'exposer et de visualiser activités, apprentissages, projets, rôles... nous a toujours inspirés.

Reconnaissance de la capacité de chacun à construire librement et solidairement le réel qu'il veut vivre !

Reconnaissance émancipation !

Apprendre et transmettre

Une véritable ruche. Un beau butinage réciproque !

Reconnaissance de soi et de l'autre par chacun !

Oui, nous sommes tous capables d'apprendre, pas tout, pas de la même façon. Oui, nous sommes tous capables d'être un bienfait pour autrui !

Oui chacun a droit à vivre « l'intention d'instruire autrui[40] ».

Échanger sur les échanges

Métacognition. Retours réflexifs. Analyses des pratiques. On organise des situations[41] pour que tous ceux qui le veulent puissent parler de ce qui s'est passé. Moments toujours extrêmement émouvants.

Reconnaissance/gratitude qui se fait réciproque !

Quatrième attention
La reconnaissance dite par les personnes concernées

Il nous semble essentiel que la reconnaissance puisse d'abord être dite, exprimée, formulée comme effets vécus par « les personnes concernées » ! C'est à elle d'en dire les effets.

Elles disent ainsi les différentes dimensions de la reconnaissance, celles qu'elles ont vraiment, concrètement, singulièrement, vécues. Ce sont elles qui évoquent ou analysent ainsi les dimensions des pratiques qui ont été, pour elles, instauratrices de reconnaissance. « **Parlez à moi, pas de moi** » disait un de mes amis (que j'ai pu accompagner dans la production de son mémoire de maitrise et qui, étant « infirme moteur cérébral », avait pu vivre les effets de la non-reconnaissance et les chemins de la reconnaissance.

« **Le sujet annule tôt ou tard ce qui se fait en lui sans lui** » alerte la psychanalyste Marie Balmary. Ce sont ces « dits » qui dévoilent également les souffrances, les misères, les maladies de la reconnaissance : le « jamais assez », le changement inverse où, à son tour, on dénie le droit à la reconnaissance, à l'égalité…

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[40] Daniel Hameline, «Introuvable réciprocité», in Claire Héber-Suffrin et Gaston Pineau (coordinateurs), *Réciprocité et réseaux en formation,* revue Education permanente, N° 144, 2000.

[41] Là encore, des outils proposés.

Cinquième attention
Les compétences psychosociales liées à la reconnaissance

Ne jamais négliger (étymologiquement, négliger, c'est ne pas relier !) les compétences psychosociales qui favorisent la reconnaissance. Ne pas oublier que la reconnaissance, la capacité de reconnaitre autrui est une compétence psychosociale. J'emprunte ce terme de compétence psychosociale à Armen Tarpinian[42]. La reconnaissance est sans doute aussi beaucoup plus. Pour Robert Antelme[43], « reconnaitre autrui est le souverain bien » !

Là, il me semble important de toujours relier la reconnaissance à d'autres de ces compétences : la confiance, la coopération, l'estime de soi…

Je veux seulement signaler un des risques d'isoler telle de ces compétences parmi ces compétences. Je suis d'ailleurs gênée de les appeler compétences : elles sont ce qui fait de nous des humains « humains », des humains qui cherchent sans cesse à s'humaniser).

Prenons l'exemple de la bienveillance. La bienveillance sans reconnaissance réciproque ne peut-elle facilement dériver en condescendance ?

Reconnaissances réciproques qui œuvrent dans des champs/chants nouveaux ceux de la résonance ; qu'est-ce qui venant de toi, résonne en moi ?

Sixième attention
Reconnaitre, ça s'apprend

Reconnaitre autrui, être reconnu, se savoir reconnu, se reconnaitre réciproquement, oui, ça s'apprend ! Comment ?

- On apprend ce qu'on vit.

- On apprend des situations de reconnaissance et de non-reconnaissance vécues. On apprend de retours réflexifs sur ce qu'on a vécu.

- On apprend les uns des autres sur la reconnaissance, si on apprend à s'écouter sans s'interpréter.

> ### J'ai appris d'Evelyne
>
> Avant d'arriver dans ma classe, Evelyne, l'une de mes anciennes élèves était considérée comme une « mauvaise élève ». Elle subissait des humiliations liées aux regards négatifs portés sur elle et son travail. Elle a passé trois années dans ma classe, sans jamais être comparées aux autres, en étant considérée comme intelligente, aimant travailler. Même si, au regard d'un niveau formel, elle avait toujours des difficultés, elle ne se sentait jamais 'mauvaise'. Dans la suite de sa scolarité, au collège, on parlait d'elle, de nouveau, comme d'une 'mauvaise élève' : « J'ai subi l'autorité, la pression, l'humiliation et j'en étais paralysée ». Mais Evelyne avait décidé de ne plus jamais accepter cette vision d'elle-même qui lui était renvoyée, même si ces résultats scolaires restaient faibles et, ça, elle le savait bien. Bouleversement radical de son auto-évaluation. Percevoir l'humiliation pour ce qu'elle est. Percevoir l'intolérable pour ce qu'il est. Pour pouvoir se respecter soi-même.

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[42] Armen Tarpinian a été fondateur et directeur de la « Revue de la motivation ». Il est auteur ou coordinateur de plusieurs ouvrages dont Ecole, changer de cap », aux éditions Chronique sociale, 2007.

[43] Robert Antelme, *L'Espèce humaine*, Gallimard, 1979. Robert Antelme parle de la reconnaissance à partir de ce qu'il a vécu en camp d'extermination nazi !

Il est important d'articuler ces trois dynamiques nécessaires les unes aux autres :

- La reconnaissance de soi, par soi, par les autres, par les institutions, les collectifs, la société ;

- La reconnaissance d'autrui par soi, par lui-même, par soi, par les collectifs et institutions dans lesquels il se positionne ;

- La reconnaissance des institutions (professionnelles, administratives, associatives (…) par lesquelles et dans lesquels on évolue : par chacun de ceux qui la font vivre, par elles-mêmes dans ses stratégies porteuses d'avenir, et par d'autres collectifs.

Et d'apprendre à les articuler :

- Apprendre à se reconnaitre et à être reconnu ;

- Apprendre à reconnaitre autrui et accompagner autrui dans cet apprentissage ;

- Apprendre à reconnaitre des collectifs pour ce qu'ils apportent, apprendre à les faire reconnaitre plus largement ; apprendre à être reconnu par eux ; apprendre à exiger de la reconnaissance de leur part.

- Modifier son propre seuil de tolérance à ce qui humilie, exclut, catégorise négativement.

> ### J'ai appris d'Evelyne – J'ai aussi appris de Brigitte
>
> Cette enfant, crispée sur un refus complet et violent de l'école, avait été placée dans ma classe : ma directrice (très attentionnée à chaque personne) avait pensé que « [ma] pédagogie serait bonne pour elle ». Lorsqu'un soir, en classe de neige, Brigitte se révéla douée pour la danse, je lui proposai de l'inscrire à un cours afin qu'elle développe ce talent en lui permettant d'acquérir les techniques de la danse. Ce fut fait. Quelques semaines plus tard, je lui demandai si elle accepterait de devenir notre monitrice en danse et d'aider, ainsi, toute la classe à préparer un spectacle de fin d'année. Je me souviens de la fierté de son « oui » ! Et, dès ce moment, Brigitte a pu travailler sur les autres matières. L'aide et l'entraide lui sont devenues tolérables, acceptables. J'ai compris alors qu'il est insupportable d'être toujours et seulement celui ou celle que l'on aide. Que l'on ne peut se sentir membre d'un groupe que si l'on est aussi celui ou celle qui lui apporte quelque chose, qui est reconnu comme essentiel au projet du groupe, qui compte pour les autres et sur qui le groupe et chaque membre du groupe peuvent compter.

-

Considérer « les » reconnaissances comme des mouvements

- * Mouvement personnel : effort, prise de conscience, apprentissage

- * Mouvement relationnel : choix éthique

- * Mouvement collectif : action coopérative

- * Mouvement social de lutte contre l'inattention, l'indifférence, le mépris, l'ignorance, la déshumanisation de l'autre : orientation politique.

> *Désenclaver les formes et les structures de reconnaissance sans les hiérarchiser !*

Chacune d'entre elles peut être origine, tremplin, étape, aboutissement provisoire, ouverture, renforcement, déplacement… de reconnaissances créatrices, formatrices, génératrices d'apprentissages… de mouvements de reconnaissances.

> ### Conclusion
> ### Développer en nous et autour de nous une culture de la réciprocité

Une culture de réciprocité est aussi celle d'une « bonne » économie[44] des signes de reconnaissance.

« Les signes de reconnaissance pourraient être disponibles librement... l'offre pourrait être virtuellement illimitée. Cependant les signes de reconnaissance sont très rares parce qu'on leur a imposé une économie artificielle qui réduit leur circulation et leur disponibilité.[45] » On a plus ou moins, selon les origines sociales, intégré, intériorisé la restriction volontaire et organisée des signes de reconnaissances dès l'enfance : ne demande pas de signes de reconnaissance, ne donne pas de signes de reconnaissances, n'accepte pas les signes de reconnaissance que tu désires. Une classe coopérative, un réseau d'échanges réciproque de savoirs®… mutualisent des reconnaissances qui auront des effets sur les apprentissages et sur l'expérience de la solidarité.

> *Votre projet de badge contribue à lutter contre cette économie de restriction des signes de reconnaissance. Il va plus loin, il construit une culture de reconnaissance ! Merci de m'y avoir associée aujourd'hui.*

Bibliographie partielle de Claire et Marc Héber-Suffrin

Claire et Marc Héber-Suffrin, 2011, *Penser, apprendre, agir en réseaux*, Chronique sociale

Claire et Marc Héber-Suffrin, 2012 (2009), Les réseaux d'échanges réciproques de savoirs (Savoirs et réseaux), Ovadia, préface de Philippe Meirieu, postface d'André Giordan

Claire Héber-Suffrin (coordination), 2013, *Plaisir d'aller à l'école*, Chronique sociale, préface de François Muller, postface de Nicole Desgroppes.

Claire Héber-Suffrin, 2016, *Apprendre par la réciprocité – Réinventer ensemble les démarches pédagogiques,* préface et postface de Pierre Frackowiak.

Claire Héber-Suffrin (coordination), 2016, *Des outils pour apprendre par la réciprocité, - Animer des réseaux d'échanges réciproques de savoirs®*, Chronique sociale.

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[44] Claude Steiner, *L'Autre face du pouvoir*, Desclée de Brouwer, 1995, p. 94.

[45] *Ibid*. p. 94-95.

Cadre de référence » pour quels usages et dans quelles conditions pour promouvoir la Reconnaissance en APP

Laure PILLIAS

APapp (Association pour la promotion du label APP)

Le réseau des Ateliers de Pédagogie Personnalisée ou APP est constitué de 118 organismes de formation répartis sur l'ensemble du territoire français, métropole et DROM. Les APP proposent une réponse personnalisée aux publics qui souhaitent être accompagnés dans l'acquisition ou le perfectionnement des compétences clés, compétences nécessaires à tout individu pour l'épanouissement et le développement personnel, la citoyenneté active, l'intégration sociale et l'emploi.

Chaque parcours de formation en APP est différent : de quelques jours à plusieurs mois, dans le cadre d'un travail, d'une recherche d'emploi ou d'un autre projet personnel, pour recevoir une formation en numérique, préparer un concours ou encore passer le certificat CléA, c'est l'apprenant qui fait la richesse de son parcours en APP.

Afin de répondre à la diversité des projets portés par les personnes accueillies, les APP mettent en œuvre une démarche pédagogique spécifique (label APP), centrée sur la personne et fondée sur le mode pédagogique de l'auto-formation accompagnée.

Les travaux de recherche et développement menés par l'APapp (Association pour la promotion du label APP) ont mis en lumière l'acquisition par les apprenants de nombreuses compétences mobilisées du fait même de cette démarche.

Durant leur parcours, les apprenants explorent des contenus de formation et expérimentent des situations d'apprentissage dans l'espace ressources APP. Ils évoluent dans un contexte porteur d'un potentiel d'actions, d'enjeux et de choix. Le parcours de formation offre ainsi un parfait terrain de jeu pour valoriser les compétences transversales mobilisées par les apprenants. Quant aux badges numériques, ils représentent une manière efficace de valoriser ces acquis de l'apprentissage non-formels et informels.

Mais les badges numériques APP sont en réalité la partie émergée de l'iceberg, face visible d'un processus de validation des acquis d'expérience développé par le réseau. Trois niveaux de badges rythment le parcours : explorateur, bâtisseur, architecte. Trois étapes d'un même processus de formation : j'identifie, puis je construis pour enfin devenir l'architecte de mes apprentissages. À chacun de ces niveaux, les apprenants sont accompagnés dans la réflexion et dans la formalisation de leur   s acquis d'apprentissage.

Dans le dispositif de validation APP, la notion de « référentiel » a été remplacée par celle de « cadre de référence ». Le cadre de référence est utilisé comme grille de lecture et d'aide à la formalisation permettant d'identifier et nommer les compétences et non de les étalonner. Cette grille de lecture permet de prendre conscience, en les identifiant dans un cadre défini, des compétences effectivement mobilisées par les apprenants ; tout en les nommant, elle permet de les reconnaître et d'en promouvoir ainsi la valeur et l'importance.

Ce cadre de référence a été élaboré autour de six compétences transversales : agir avec méthode, communiquer, coopérer, exercer sa créativité, raisonner avec logique, exercer son sens critique et éthique.

Pourquoi ces six compétences ?

- Parce qu'elles s'avèrent indispensables au traitement de l'ensemble des situations d'apprentissages et plus largement à la résolution de problèmes.

- Parce qu'elles sont particulièrement sollicitées dans une démarche d'autoformation, concept clé sur lequel la démarche pédagogique APP est fondée.

- Parce qu'elles font consensus.

Avec le dispositif APP, le réseau APP introduit un nouveau mode de validation alliant organisation apprenante et nouvelles technologies de la Reconnaissance par les badges numériques et s'inscrit ainsi dans une démarche engagée d'inclusion et de cohésion sociale.

ABSTRACTS (English)

Boot Camp and Open Badges for Sustainable Integration of Status Holders in Breda

Gerard Pruim

Gear Up, Netherlands, The

The Council for refugees in Breda started a new project for the status holders in March 2018, the **Boot camp Dare and Do**. This Autumn a second Bootcamp will start.

What is the Boot camp Dare and Do?

The boot camp is an intensive training course towards sustainable integration. It is an intensive process aimed at all areas of life. The new beginning in a new society has different keys. From this point we find that the importance of our project is in the covering of all life's areas.

The refugees who arrived at the Netherlands found that it is very difficult to know their way into Dutch society. They face a lot of barriers as the language, the culture, and the new start in a new society. The difference between a "we culture" (country of origin) and an "I culture" (Dutch society) and provides a barrier to participate in Dutch society on the basis of equality.

The result is that status holders do not know how they can and should act in various areas such as social manners, network enlargement, (psychosocial) health, self-reliance and participation. Many status holders also indicate that they feel isolated, so that people end up in a negative spiral.

From this point the status holders follow an intensive process in which they develop skills and are given the right tools so that they can take control of themselves and proactively participate in society. This contributes to psychosocial, mental and physical well-being in the respective areas of life.

The project is divided in two periods, the first period includes the person development, sport, hobbies and free time. The aim of the first period is to build a healthy body and mind and to discover their power and abilities. Then comes the digital skills via the computer lessons.

The second period aims to prepare the attendees to the job market or education. They get courses over the way to work. The Dutch Council for Refugees prepares to invest their abilities in the right way, to build the bridge between refugees and the employer.

The goals for the boot camp

- To have control over your own future
- Sustainable integration
- Thorough knowledge of Dutch system
- Rights and obligations
- Making and dealing with cultural differences with regard to work

- To equip candidates well with practical tools for the future

- Self-confidence / positivity

- Trust in the Netherlands - impact on future generations

The use case: How to present the skills developed in this boot camp?

The skills status holders developed are important to them but also for their working career. In what way can we make these skills visible and actionable to them and for example to potential employers? And what was the effect of the boot camp on the status holders? A self-assessment can be used as a starting point and a second to see the effect.

EU Skills Profile Tool for Migrants and Refugees

This online self-assessment tool can document or evidence migrants skills as a pre-condition to get into the labour market and the educational systems in the Member States of the EU.

With the Skills Profile Tool in combination with Open Badges a migrant can claim his skills that are stored in an open badge. Or he has already a badge for (some of) his skills and that can be used to fill the Skills Profile Tool with relevant information.

Open Badges integration

Open Badges were only issued by awarding bodies like schools in the past. Now, with the new specifications, a person can be endorsed by peers, or his community. Also, you can issue yourself a badge (by signing the badge before you start a bootcamp for example) and ask others (like the trainer after finishing the bootcamp) to sign the badge.

During the Summer of Code a proof of concept of bSkilled was developed. With the combination of a Badgebuilder like the ESCOBadges badgebuilder the online CV tool is the input for the bSkilled application. In the second Bootcamp we will start building on the further development of bSkilled to connect with the tool.

Cities of Learning Goes Europe

Nerijus Kriauciunas

Badgecraft, Lithuania

Following the developments of LRNG Cities of Learning in U.S. and then RSA Cities of Learning in U.K. we are currently in a progress to build and launch Cities and Regions of Learning by Badgecraft and our European partners in Germany, Netherlands, France, Spain, Lithuania and Finland.

Based on our previous work on Open Badges, we identified a need to expand our current technology to be able to facilitate a city-wide and region-scale connected learning and recognition opportunities for young people, learning providers and other stakeholders (e.g. employers, municipalities, etc.).

This new infrastructure will offer partners from any territory to:

- Create interactive maps of learning opportunities for young people (and possibly other citizens)

- Create and facilitate Learning playlists connecting various opportunities into learning pathways

- Offer badge issuing and earning capabilities that validate experiences, learning and achievements of young people and those involved in city/region wide opportunities.

Until now our international partners carried on with local research activities that involved focus groups and surveys with young people, meetings and consultations with learning providers and other relevant stakeholders.

We already started with user testing of the early version of the platform to map learning opportunities. We plan to have a working MVP for the ePIC2018 ready to showcase our solution and collect questions/feedback/suggestions.

Our focus is on creating opportunities for young people, especially those that would benefit most from such open learning and recognition opportunities at the city or regional levels. Most of our partners work locally with disadvantaged youth groups having a goal to engage them in gaining experiences, building their character, developing skills and unlocking new career opportunities.

Until 2020 we plan to achieve the following objectives:

- To map and connect places of non-formal and informal learning, which will enable young people to better "navigate" through the learning opportunities, based on their needs, interests and passions across the wide spectrum of learning.

- To build the online mapping software adapted to the needs of partners' represented territories and easily scalable across Europe in the future

- To develop capacities of local learning providers and build online software for creating learning playlists - a youth friendly way to present and deliver diverse learning content online and offline with integrated recognition through open badges.

- To build a toolkit and documentation for online software, which will enable any regions, cities or consortiums create their maps and playlists of learning anywhere in Europe.

Our developments are based on the needs of organisations and young people and also responding to the regional, national and EU youth policies, calling for a more connected, diverse and recognised learning opportunities, based on passions and interest of young people, linked with the real life and delivered in a participatory and youth friendly way.

We expect that new web infrastructure for Cities and Regions of Learning will respond to European challenges in education and employment by increasing equity for non-formal and informal learning across different domains and by creating connections among learning providers in cities and regions of Europe.

During the ePIC2018 conference we want to meet other similar initiatives and exchange ideas and practical solutions on how to build well functioning web infrastructure for city and region scale initiatives.

Badging Normandy

Philippe Petitqueux

DRAAF de Normandie, France

Presentation of Badging Normandy, a network of institutions, associations and organisations working in education and training, employment and social integration who are exploring the power of Open Badges for building a learning territory: developing, recognising, valorising and connecting the talents of Normans.

Theoretical Framework of Digital Open Badge-Driven Learning – Practical Applications to Support Emerging Ecosystems

Sanna Brauer

Oulu University of Applied Sciences, Finland

There is a growing demand for economically effective accreditation practices that respond individually to local challenges and unique professional needs. This conference paper summarises the latest research concerning digital open badge-driven learning and underpins the main principles in designing learning and education practices that support related forms of assessment, digital open badges and a competence-based approach. This summary is the first to present principles for designing gamified digital open badge-driven learning based on a layered design view in conference proceedings.

Digital badging is a form of competence-based assessment that offers to recognise formal, informal and experiential learning. Digital open badges encapsulate the individual learning experience and tie performance and achievement to documentation and evidence of learning (Gamrat, Bixler, and Raish, 2016; Reid, Paster & Abramovich, 2015; Ahn, Pellicone & Butler, 2014). The aim of this paper is to discuss different theoretical approaches to digital badging practices that could potentially support a competence-based approach in continuing professional development. Theoretically, this study draws attention to the motivational effects of digital badging, gamification and the competence-based approach.

The investigated 'Learning Online' professional development programme (PDP) is a MOOC (massive open online course) type of implementation with gamified elements. The programme is derived from the UNESCO's ICT competency framework for teachers (UNESCO, 2011) and aims to support teachers of vocational education and training (VET) in applying new technologies and strategies to teaching and learning in online, hybrid and face-to-face learning environments (Brauer, Siklander, & Ruhalahti, 2017). In Learning Online, digital open badges offer novel possibilities in identifying and recognising digital pedagogical competences independent of how they were acquired. The Learning Online concept was built during an OsaOppi project funded by the Finnish National Agency for Education (EDUFI) in 2014 and has been in development ever since.

This paper follows a digital open badge-driven learning process along with an implementation of competence-based professional development that the author has

121

experienced and observed, building on four different sub-studies. The research represents vocational teachers' different ideas, views and experiences in relation to a competence-based approach to the professional development of ICT key competencies of the 21st century; it seeks to present the structure and process of digital open badge-driven learning. The data were collected from Finnish pre- and in-service vocational teachers in 2016 via group online interviews (*n* = 29) and via online questionnaires in 2017 (*n* = 329). The study draws on descriptive mixed research methodologies: qualitative data analysis, phenomenography and constrained correspondence analysis (CCA).

This study offers insights into the process structure and layered design view for applying the competence-based approach, digital open badges and gamification in higher education. The results suggest considering a multifaceted, layered model to design gamified digital-open-badge-driven learning with a competence-based approach. The paper explains the main principles of focusing the design model to meet unique personal needs, progression towards peer and community learning, and the recognition of excellence within working communities. Further, the paper presents a summary of victories and challenges experienced in five years of Learning Online and introduces the next set of 'Teacher's Badges' developed on that basis. The aim of the Teacher's Badges project is to create and establish a national digital badge system to support the recognition and acknowledgement of the professional competences of vocational teachers during their teacher studies and over their entire professional career (HAMK, 2018). The project is run on a national level within several institutions of higher education aimed to establish a formalised recognition ecosystem supervised by the Ministry of Education in Finland and to explore further the broader sociotechnical contexts in which the badge constellations could exist.

How Open Badges for Teachers' Digital Competence Correspond to the DigCompEdu framework?

Jaana Kullaslahti, Sanna Ruhalahti

HAMK University of Applied Science, School of Professional Teacher Education

Digital open badges, a set of micro-credentials, have been introduced as a kind of tools for digital recognition of competencies. Latest research have resulted that digital badging allows the gradual identification and recognition of competencies, motivating the student towards the achievement of intended learning outcomes (Brauer, Korhonen & Siklander, 2017). In Finland, since 2014 the most widely used system is Mozilla Open Badge, which architecture is built upon an identification image, graphic or icon and the accompanying information content.

The European Framework for the Digital Competence of Educators (DigCompEdu) define assessment in terms of teacher´s pedagogical competences in conjunction to teaching, learning and digital technologies. It describes what it means for educators to be digitally competent. The framework offers a support and direction for the development of teachers' digital competence at all levels of education. The DigCompEdu framework distinguishes 22 competences organised in six areas: professional engagement, digital resources, teaching and learning, assessment, empowering learners and facilitating learners' digital competence. In addition, framework outlines six different proficiency levels of different digital competence development. (Redecker & Punie 2017.)

In this presentation, we investigate how digital open badges developed for teaching staff in Finland correspond with the DigCompEdu framework. The analysis covers open badges (approximately 100) from the national level projects, staff training and study programs; Learning Online (a professional development program for VET teachers), eAMK project (a development program for HE, https://www.eamk.fi/en/), University of Applied Sciences (staff training programs) and DigTeacher specialisation studies. The study is a part of the eAMK and Teachers' Badges national project.

In comparison with the DigCompEdu framework, the badges best correspond to the areas of digital learning environment as well as teaching and learning. Fewer badges for assessment, empowering learners and facilitating learners' digital competence. Some of the badges were extensive and contained elements from different areas of the framework. The analysed digital badges were at all six competence levels compared with DigCompEdu. How well do digital badges guide the development of educational organisations, staff and students towards meeting the competence requirements of the future?

Scaling up the Open Badge Experiment in Dutch HE. Capturing the Lessons Learned when Building a Pilot for an Open Badge Infrastructure.

Frans Ward, Alexander Blanc

SURFnet, The Netherlands,

SURFnet, the National Research & Education Network (NREN) organisation in The Netherlands, together with 9 higher education institutions, have been experimenting between September 2017 and July 2018 with a proof of concept open badges infrastructure to allow institutions to experiment with creating and awarding open badges and look into the possibilities of using digital certification for (partial) results obtained by their students.

Starting September 2018, SURF will continue to work with various institutions to build a digital infrastructure with the purpose to be able to issue such digital certificates, or 'edubadges'. This edubadges pilot will last until July 2019. The goal of this edubadges pilot is to prepare for service delivery by SURF to Dutch HE afterwards.

The overall aim of the edubadges pilot

Together with 16 HE institutions we are looking into the added value of an open badges infrastructure for Dutch HE. This is done through experiments and pilots that are conducted on a centralised badging system, based on Badgr, which is developed and refactored according the experiences and needs of these institutions and based on the many lessons learned during the previous proof of concept phase.

We seek to find answers at a practical and semantical level:

At a practical level: How can an institute or a teacher assert a badge? What is needed to implement a badge infrastructure for a HE institution or at a central NREN? What are best

practices for asserting badges? At what level within the institution can badges be asserted? Can signing of badges add value to a badge and if so would this best be done by a NREN?

At a semantical level: Are badges course based or competency based or is there a better alternative? How can we make sure that badges within the HE sector are comparable and stackable, given the discussion between course or competency-based badges? If badges are interoperable can students exchange an institute A econ101 badge for an institute B econ101 badge? How can badges best be displayed for minor exchanges? How can students create their own stack of badges and have them assessed as a whole study?

The edubadges pilot is aimed to gain more insight into the process of using open badges within HE, the interoperability of badges within and between institutions for study programmes of students. In the edubadges pilot the institutes also work on finding the semantics for these badges by coupling the badges with earlier defined competency frameworks as well as predefined accreditation standards within Dutch HE. The frameworks and the data with regards to the values or scores on these frameworks is than mapped on the open badges specification. At the moment, there are not many available solutions that have alignments or other methods for linking badges with external validation methodologies available. Open source development and collaboration with suppliers is therefore needed.

We see promise in the use of open badges for Dutch Higher Education to enable micro credentialing and more flexibility and choice for students as well as better adapted education to meet the needs of employers who would like their staff to be certified.

Capturing the Lessons Learned

This presentation will address the lessons learned from the 9 months experiment and will explain the choices we have made and are still making during the pilot.

To name a few of these findings and lessons learned:

- There is a need for integration with the learning environment (LMS).

- For formal education a link between SIS and badges is needed.

- Most badge systems still in early stages, not all fields of the 2.0 specification are used.

- There is a need for additional metadata to align with European exchange and description frameworks.

- Identities of students differ over institutions (different e-mail addresses). How to deal with badges once a student graduates and loses institution e-mail address? Need for a persistent eduID.

- We need to increase our effort on policy support to enable microcredentialing within Dutch HE.

- What is the best cryptographic solution for signed badges to keep them secure for a long period?

- We need to investigate the interest and possibilities for a pan European badge infrastructure.

Adventures in blockchain

Part of the edubadges pilot is a study into the possibilities and the advantages or disadvantages using blockchain technologies in combination with an edubadge infrastructure. For that purpose, we are experimenting using a permissioned blockchain, our educhain, to make access to endorsements and badge classes more transparent and verifiable. The aim of this experiment is to find out if there is additional value in using blockchain technology in an open badge infrastructure.

This presentation will also share our findings on this subject.

More than a tool: Integrating the 'teacher voice' into an ePortfolio using the Three-layered PDP model

Maria Luisa Perez Cavana, Sue Lowe

The Open University, United Kingdom

This study takes place within the context of the Open University (OU), one of the largest universities in the UK which is dedicated to distance education and which is open to all.

Personal Development Planning (PDP) was developed in the UK as a structured process to help learners reflect on their own learning, record achievements and plan for personal, academic and career development (QAA, 2009). Every Higher Education (HE) institution in the United Kingdom is required to provide PDP for its students.

PDP has been associated with ePortfolios as a means to support its pedagogical functions (Ward and Strivens, 2010, Toner and McDowall, 2015). Different approaches have been implemented in numerous UK HE institutions (Strivens, 2007).

Within this context the authors aimed to integrate PDP into new level 2 undergraduate language modules using an ePortfolio. The particular challenges the authors faced were to communicate to distance students the complex concept of PDP, its purpose, and how to work with it in a user-friendly and motivating manner. Drawing from the OU teaching principles in which the 'teacher voice' is incorporated into the learning materials themselves, the authors designed alearning ePortfolio specifically created for PDP using OneNote (part of Microsoft's Office 365) and additional supporting learning materials.

This paper describes an innovative approach to the design and use of ePortfolios exemplified in the implementation of PDP using the dynamic interplay of three elements: the *Three-layered PDP Model.* In this model, the PDP process is closely interwoven with two other elements: a learning ePortfolio and scaffolding activities. The paper discusses how this model is different from previous uses of ePortfolios, in which ePortfolios have been typically understood and used as a tool. In the Three-layered PDP model, the ePortfolio sections closely correspond to the pedagogical functions within the PDP process (Identify, plan, action, record, review). The process is also supported and guided through scaffolding activities. Both the ePortfolio and the scaffolding activities act as the 'teaching voice' that guide students through their PDP reflective process.

The study further reports on two pilot studies and the data gathered using this model. It finishes by evaluating the model and suggesting further steps.

References:

- QAA (The Quality Assurance Agency (2009) Personal Development Planning: Guidance for institutional policy and practice in Higher Education, http://www.qaa.ac.uk/en/Publications/Documents/Personal-development-planning-guidance-for-institutional-policy-and-practice-in-higher-education.pdf

- Strivens, J. (2007) A survey of e-pdp and e-portfolio practice in UK Higher Education, The Higher Education Academy, https://www.eduhk.hk/obl/files/eportfolio%20practice%20in%20UK.pdf

- Strivens, J. and Ward, R. (2010) An overview of the development of Personal Development Planning (PDP) and e-Portfolio practice in the UK higher education, Journal of Learning Development in Higher Education, November (2) 2010.

- Toner, A. and McDowall, K. (2015) 'ePortfolio for students: A paper exercise or the product of effective partnership working?', British Journal of Mental Health Nursing, vol. 4, no. 5, pp. 219–222 [Online]. Available at http://dx.doi.org/10.12968/bjmh.2015.4.5.219 (Accessed 22 April 2017).

Epos-Bridge (epos-b): Towards a user-friendly electronic version of the European Language Portfolio (ELP)

Bärbel Kühn [2], Maria Luisa Perez Cavana [1], Michael Langner [3]

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The European Language Portfolio (ELP) (https://www.coe.int/en/web/portfolio) is a tool that facilitates individuals to learn a language autonomously following the principles of the Common European Framework of Reference. It also enables learners to integrate language learning with the values of the Council of Europe (CoE). This claim has been broadly disseminated through different versions of paper portfolios in the member states and has continued by the ePortfolios in the digital age.

The e-portfolio EPOS has been developed at the University of Bremen, (for schools and adult and higher education) based on the German paper-portfolio, developed as a project by the ministry of education of Germany in seven federal states (among them Bremen). This portfolio is accredited by the Council of Europe. EPOS is currently offered as a lifelong-learning project of languages in Europe within the framework of the Training-and-consultancy Program at the European Centre for Modern Languages (ECML).

Over the last years EPOS has been very successful: It initiated an organisation consisting of the Language Centres at European universities, who were using EPOS in their HE institutions. These partners engaged themselves in developing EPOS for their aims. However the last version of EPOS has proved to be technically quite challenging for individuals outside HE.

In order to overcome this challenge we have started using a different type of ePortfolio based on OneNote (Office 365) following a model developed by our team. This paper presents the rationale behind using this less complicated version of an ePortfolio using OneNote Office 365 and how we plan to develop it in the future. In order to distinguish this new version from the original one, we have named it "epos-b": "b" for "bridge" as it links different aspects of the learner, e.g.: formal and informal language learning; learning process and outputs; and individual learning and professional recognition.

Epos-bis technically simple, but pedagogically strong:

- It is technically a simple model, a sort of "essential portfolio" without unnecessary complicated functions; that means, it is user-friendly and self-explanatory. Students are able to customize it and create their own templates.

- It is a Learning ePortfolio. That means that it facilitates awareness of the own learning and it enables learners to plan and monitor their own learning, it promotes self-regulated learning. These are precisely the goals of the experts who created the ELP.

epos-b and OneNote fully develops and supports the original spirit of the European Language Portfolio as it enables learners to work with their languages portfolio both as a process and as a product. As a process of self-evaluating, identifying learning objectives, setting goals and reflecting on the learning occurred; as a product gathering evidence and pieces of work along the learning path. It also emphasizes the fundamental ELP principle that the portfolio is owned by the learner. OneNote really allows learners to make their ELP their own, to amend it and build it in their own way.

The paper also reports on the findings of a workshop in Armenia, where we trialled this new version with German teachers and finished with some reflections and suggestions about the next steps to develop epos-b.

Recognising Vocational Student Teachers' Competences Through ePortfolio

Anne-Maria Korhonen

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It seems that individuals have not very often collected evidences of their competences in one place and in a digital mode like into ePortfolios. In order to understand an ePortfolio process we have tested different approaches with vocational student teachers during their teacher education program (60 ETCS). We wanted student teachers to make their vocational teacher competences visible and transparent through their ePortfolios and tested different scaffolding approaches. We have studied ePortfolio process with three different teacher student groups in years 2013 and 2014 (the first study) and in year 2017 (the second study). We have analyzed totally 58 work space ePortfolios and 21 showcase ePortfolios. We wanted to give a freedom to student teachers to create an ePortfolio as they each prefered but gave some suggestion how to make teacher competences transparent by artefacts they were creating during the vocational teacher studies. By our studies we found a need to scaffold ePortfolio processes more detailed and structured.

ePortfolio as a showcase informs its audience about competences of ePortfolio owner in a long term. When ePortfolio is for showing transparently someone's competences it works also as an evidence of prior knowledge that is useful e.g. in future studies and when applying a job or even telling partly competences of an organisation's employees. In learning process it is needed to have a work space portfolio to be able to save all interesting materials as well as all learning outcomes as artefacts during studies. A work space portfolio is not often detailed and edited environment to a bigger audience and therefore creating a public showcase portfolio needs its own process. However, materials to a showcase portfolio are able to draw from a work space portfolio and also in edited format related to audience time to time.

There is a huge difference between artefacts that student teachers have been created during the years of our studies. The studies reveal different kinds of ePortfolio content related to these years and it may be said that ePortfolios have changed during years even the curriculum of vocational teacher education (60 ETCS) remained the same. In the study of 2017 it was revealed that student teachers uses nowadays mainly multimodal artifacts to present their competences that was not common in the first study in years 2013 and 2014. Multimodality means that there is two or more meaning makers in an artefact combined like for example text and link or text, link, and photo. Often the artefacts were composed of a text by a web tool, links outside of ePortfolio to discover more and detailed information, and photos that were mainly related to topic described in an artefact.

We have found different sections that student teachers have saved into their ePortfolios. These sections are composed of a learning diary, a learning design, a project work, assignments, a profile information, social media feeds like from Twitter, a personal development plan, and Open Badges. One or more sections were found from each ePortfolio that we analysed. We analyzed learning designs deeply as those have the richest content informing competence of a vocational teacher. Evaluation of learning designs based on the framework of pedagogical infrastructure that includes components: technical, social, epistemological and cognitive. All these four components were divided in quality levels to be able to understand a competence of vocational student teachers through ePortfolios. The results indicates that by learning designs vocational student teachers are using some different digital environments in their learning processes with their student, their assignments to the students are always authentic, very often collaborative, and they are focusing on scaffolding of their students. The results indicates also that more detailed and structured scaffolding is needed to make student teachers show transparently their teacher competence. However, student teachers are very capable to use different kinds of digital tools to create their artefacts.

Our study presents a model how to evaluate a pedagogical infrastructure as it is giving an insight of vocational student teachers' competences. Finally, our study is giving suggestions how to scaffold student teachers to make their competences transparent through ePortfolios by focusing on a learning design and getting student teaches inspired by

Digital Badges and Open Badge Passport. Perceptions of MSF Field Staff

José Manuel Lorente Santamarta, Alfonso Bustos

MSF, Spain

Context/Objective

MSF OCBA is developing the TEMBO program: "Your personal learning and development environment".

This program aims to provide MSF field workers with a learning system based on a software platform that will help them take control and manage their own learning and, therefore, their own development. One of the pillars in this project is related with digital badges as a resource to promote the professionalisation or certification of the learning skills acquired in the humanitarian sector.

In this presentation, we will present specifically the results regarding the perceptions of the MSF Field Staff about the use of digital badges in two levels: the relevance assigned to digital badges and the user experience about the system and process to claim the badges.

Procedure

A pilot was held in Nigeria in 4 different locations: Abuja, Maiduguri, Pulka and Gwoza from 17/06 to 01/07. 74 MSF field staff participated (58% medical, 30% Logisticians, 12 % HR). They used the digital skills, clinical skills and emergencies learning solutions. Each of them concluded with an evaluation to obtain a badge as part of future certification.

Wetested **a Digital Learning Ecosystem that** integrated the following systems: **Mahara**, **OBF (Open Badge Factory)** and **OBP (Open Badge Passport)** and **Totara 2.9**. as shown in the diagram below: **MSF Credential Hub**

Our MSF Credential Hub was built based on Open Badge Passport with the aim of providing a personal space for learners to manage her/his credentials obtained throughout the learning process. MSF Credential Hub is connected to Open Badge Factory and to Totara so all that happens within this digital learning ecosystem can be recognised.

Results

At the end of the learning journey the 74 participants got around 300 badges related with the proposed learning topics: digital skills, clinical skills, responding to emergencies and general badge related with this learning journey.

Most of the participants evaluated the badges experience as a great experience, useful, and commented about the added value and relevance of the badges as a recognition model. Below a sample of the participants' comments:

• *I would use badges in search or application for other jobs.*

• *I would like to use the badges on my CV and resume*

- *I will like to apply a job in other organisations with the badges*

- *I would use badges to apply for a certification*

- *Could be very useful if widely recognised by all sections and other ngos*

Badges and My Credential Hub were experienced differently in the different locations where the pilot took place. In all locations the same explanation was shared with participants, however, when it came to experience the badges and My Credential Hub, there were some differences (see below).

- Abuja and Maiduguri: participants had access to My Credential Hub and to the badges obtained throughout the process. It is important to highlight that the interaction OBF-Tembo Dashboard – My Credential Hub was not working for all users. Some participants did not get their badges due to a technical issue.

- In Pulka, participants were able to experience badges in the local server system (mentioned above). Due to connection issues, they were not able to access My Credential Hub,

- In Gwoza the experience was completely offline, so participants were not able to experience badges.

Conclusions

The concept of badges was generally very well accepted by participants. They clearly understood the potential and different applications of this learning innovation. It is important to highlight that the main preferences are related to the recognition of technical skills even though recognising experience and management competences are highly valued. When it came to the use of badges, most of the participants considered very important the possibility of including these credentials in a more formal CV. This fact is especially relevant for non-medical profiles. Medical profiles, on the other hand, preferred to use badges when planning their career or applying for certifications. Regarding the Open Badge Passport component, technical issues were experienced. These did not allow the MSF Tembo team to fully test the OBP suitability for the MSF context.

Open Badges As Tools For Change Within Higher Education Institutions

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Confederal University Leonardo da Vinci, France

Keywords

Informal skills, open badges, informal recognition, formal recognition, extracurricular skills, hidden competences, endorsement, quality, learning pathways, society of trust,

informal proof, hints of achievement, traces, employability, higher education, ecosystems, employers, students.

As identification, assessment and recognition of *skills* (versus academic *knowledge*) is still a complex issue in many higher education institutions (HEIs) in Europe, since January 2017, in France, the law allows students in HEIs to ask for recognition of the skills they have acquired though their extracurricular involvement in associations, working environments and activities such as being volunteer firefighters for instance.

Within this legal framework, HEIs in France are therefore being confronted to the emergence of informal skills in their formal education system, of informal and non-formal recognition processes of informal or non-formal activities of students… without much clue on how to deal with them or guarantee the quality of the recognition and evaluation.

To respond to the requirement of the law, the French ministry for higher education, research and innovation has launched, with stakeholders, a national project (called EXTRAsup[1]) funded by the European Agency Erasmus+ on the issue of the recognition and quality assurance of the competences acquired by students in extracurricular activities. This ongoing project aims at producing a methodological toolkit for the HEIs, the teaching staff and the students willing to take steps towards the recognition and validation of the learning outcomes and competences developed by students in the framework of citizenship activities or personal involvement within their training programs. The toolkit is currently being written and will be released in October 2018.

EXTRAsup project also relies on testing its « quality methodology » in one French higher education institution : the University of Limoges in France, which is implmementing the recognition of extracurricular activities with open badges.

Within that context, my contribution will address the following questions:

- What is at stake in the recognition of informal competences in formal HE systems? Why is it needed to reflect on the recognition of skills developed through extracurricular activities ? What is EXTRAsup project telling us about the situation in Europe (based on a French national survey, 3 stakeholders working groups and a study of 5 European countries)?

- How can a quality approach articulated with the development of Open Badges foster internal change in higher education?

Based on the deliverables of EXTRAsup and the testing implemented in Limoges, I will describe how Open badges have allowed to gather very different stakeholders at the table, how they have launched debates on the notions of skills and certifications, how they question the capacity of recognition of individuals and how they raise questions on the digitalisation of society.

The objective of the presentation will be, therefore, to share the reflections produced by EXTRAsup project on the recognition of extracurricular activities, on the testing of the project on the terrain, and to reflect on the issues raised by the use of open badges and informal recognition in formal contexts, little used to this opening to an outside ecosystem of stakeholders.

[1] http://www.u-ldevinci.fr/wp-content/uploads/2017/12/Brochure_EXTRAsupEN_vdef.pdf

Open Badges for the Accreditation of Media-Related Competencies in Higher Education Using the Production of Instructional Videos as a Case Study

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Introduction

At the University of Koblenz-Landau in Germany, we observe an increasing demand from lecturers to let their students produce instructional videos instead of, or in addition to, giving seminar talks. This trend is particularly strong in both Faculties of Educational Sciences at the two campuses of our university. This is due to several ongoing digitalisation initiatives in schools as well as at universities. So far, no video-production competency of students has been mentioned or even acknowledged in the curricula of our university. However, there is a demand for some reward for these additional competencies. To this end, we introduced Open Badges as a micro-accreditation system. In this study, we report on the implementation of badges, on their use by students and lecturers, and on a comprehensive evaluation.

Methodology

In the summer term 2018 we conducted a pilot study with about 80 participants in three courses that included video production by students ("Media Education", "Diversity Management in Higher Education", and "Intercultural Sensitization"). For the pilot study we set up five Open Badges using the "Open Badge Factory" platform. These badges were based on a competency model. For this purpose, we derived a hierarchical competence grid. We assigned existing workshops to specific competencies for each badge. In some cases, we even designed new workshops tailored to these competencies. As a result, each badge reflected one of the five workshops we taught: "Video Production Support at our University", "Introduction to the Didactics of Instructional Videos", "Introduction to Video Equipment", "Video Editing", and "Production of Screencasts".

In order to assess the badges, we performed an evaluation. The primary objective was to find out to what extent the large-scale use of badges as a micro-accreditation system for achievements that would otherwise not be rewarded would be accepted by students and lecturers. Furthermore, we wanted to examine to what extent badges would influence the motivation of students to take part in certain courses or to get more involved. The evaluation consisted of several parts. Prior to the workshops, the students received an introduction to the badges and a questionnaire. It contained questions about the students' computer skills as well as about transparency, motivation, acceptance or benefit,

informative value and design of the badges and possible application contexts. We also asked about the relevance of privacy when using badges in social networks. In order to assess the extent to which students' assessment changed after receiving the badges, at the end of the course a second questionnaire was completed. This questionnaire was supplemented by questions regarding the usability of the badge system we had used ("Open Badge Factory" and "Open Badge Passport"). In order to be able to grasp the perspective of the lecturers, we applied the method of participating observation. Here we recorded the process of reviewing badge applications by the lecturers. We also interviewed the lecturers to evaluate their use of badges.

Results

First results of the current study show that the vast majority of students have no previous experience in dealing with badges, neither from their education nor from other areas. The descriptions of the badges and the procedure for their acquisition are considered understandable. With regard to the motivation of the students, a divided picture has emerged. Some students see no motivation gain from the acquisition of badges. Another part is motivated by the prospect of using the badges in applications or by the fact that their achievements are rewarded. The cost of obtaining a badge is considered appropriate. However, only about half of the students consider badges to be personally beneficial. This is probably due to the fact that the majority of students are freshmen who want to become future teachers. The highly formalised application process in this area does not allow the use of badges. Only very few students plan to use the badges in their own applications. Few students can imagine using badges in social networks, although the answers suggest that students are unaware that social networks also exist in a professional context. These are only the first results of the preliminary survey. At the conference we will also present the evaluation of the final survey and the interview with the lecturers as well as the associated participating observation, both of which will be completed by the end of July.

Open Digital Badges in a local healthcare ecosystem

Pieter van Knippenberg

The Netherlands

In the south of The Netherlands, close to the Belgian border, there is a unique concept of care in progress. As a result of a cooperation of 10 partners form vocational education, (home)care institutions (with a total of about 10.000 personnel), local counsel and the Care Innovation centre in the town of Roosendaal.

Since 2014 the partners work together to realise an excellent care environment. They learn, discover and realise new care-concepts and bring them into practice.

During the last years, also because of government regulation and an increasing change in the demand for care, the partners are experiencing a growing mismatch between the demand for care, the formal education system with its diplomas and the skills of the thousands of care-workers.

An extra complication is that because of the booming economy there is structural shortage of people working and wanting to work in healthcare or staying working in the care.

We recently agreed to start an experiment for a period of 4 years to examine and bring into practice the concept of open digital badges. A lot of health workers have developed/are developing a lot of competences while working that go far beyond that what is covered by there diploma's. Formal vocational education cannot easily adapt to the specific personalised demand for further education.

A first two-day conference is planned for August 2018. Discussing and exploring Open digital Badges, lining out a path to implement the use of badges. Connect and integrate with the different learning academies of the partners. Interest and 'seduce' potential learners to start their learning pathway and claim their badges.

Learners probably do not want to go to 'school'. Their experiences with the formal system is often at least not very pleasant.and for a lot of them school was a long time ago. How to activate learning and existing knowledge by issuing badges will be part of the project.

The local counsel is especially interested in connecting people in a welfare situation with this promising labour market.

There will be contacts with the vocational education system to ensure that , in the long term or short term, the collected badges will be recognised and can contribute to a diploma if the learners wish so. This might be a challenge.

The experiment will make use of the ESCO database and team up with partners that will provide an online tool, easy accessible for the learners. Regular publications in an online environment are part of the project. The partners are willing to contribute to realise a vibrant and durable environment for healthcare for years to come.

An extensive research on expectations of the learner will take place. Activate and stimulate long life learning.

The partners are going to explore if the badges, acknowledged, accepted and validated by this local ecosystem in healthcare, will be a stimulus for health workers to keep working in the sector and region. This might be a very valuable result of the project.

In the presentation I will show and tell the results so far and line out the plans and actions for the coming period.

Welcome to TransRECOLand

Regina Klein

Carinthia University of Applied Sciences, Austria

This interactive presentation focuses on non-recognition of foreign qualifications and prior learning as the central migration issue of the new century in all post-industrial societies (UN 2016). It introduces a newly started EU-Strategic Partnership for setting up new standards for skill recognition of migrants in the field of Early Life Family Care (ELFC), using open

badges as flexible and visionable recognition system and with the aim of creating a new job profile called Transition Mentor.

The project spans over 3 years from September 2018 to August 2021 and will take place in five different European countries: Austria, Finland, Germany, Kosovo and Switzerland. In each country, Higher Education Institutions and Research Organisations are collaborating with a local, small and/or social enterprise, either in the field of ELFC, IT-Technology or Social Welfare and Networking.

„Cognition precedes recognition" (Erkennen geht dem Anerkennen voraus). With this statement in mind, the project seeks to tackle transition barriers and skill-mismatches faced by the migrants as early as possible in order to foster a more inclusive society and cohesive Europe.

The migrants and refugees in the ELFC sector are in a unique situation, since they are going through two transitions simultaneously: both arriving in their new target country, and entering parenthood. With growing mass migration, the amount of pregnant migrant women arriving in Europe is increasing and with it, their heightened vulnerability is becoming more apparent. In the ELFC-sector in its current state there is, on one hand, a clear skill shortage in the transcultural knowledge and on the other hand, a lot of unused potential – that of the migrants and refugees themselves.

In order to gain access to this unused potential, the project sees a paradigm shift necessary: by using Participatory Action Research (PAR), we will develop Transcultural Case Studies out of the real (working) life. This is an innovative approach, giving members of marginalised groups, in our case migrants/refugees, an active role and a voice in order to co-create the aimed new competence and job profile called Transition Mentor.

Our main outcome will be a Transcultural Open Badge Platform (ToBP), an open virtual validation and educational space to educate future Transition Mentors in the field of ELFC. Especially with our interactive Inventory of Transcultural Transition Cases we provide the opportunity for HEI and VET professionals to use *and* store developed teaching cases. The establishment of a European Social Network on Transition Mentoring completes the actions and guarantees sustainability. The project's innovative approach coupled with newly developed open technology will result in long term benefits for marginalised groups in Europe and helps to strengthen social cohesion through transnational validation of migrant's knowledge, competences and transition skills. Figuratively speaking ToBP will provide a so-called Trans*ReCO*Land, enabling barrier-free *Transitions,* providing RECOvery and outlining RECOgnition for targeted groups, ranging from pregnant women, mothers, fathers, babies, toddlers to aspiring Transition Mentors.

Presenters:

- Regina Klein Prof. PHD, Principle Lecturer in Health Social Cultural Care. CUAS, Austria, Project leader of ToBP (Transcultural Open Badge Platform) …. https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2018-1-AT01-KA203-039332

- Outi Sulopuisto, BSc., Transcultural Secretary of the TOBP Project

Co-design of Digital Badges practices in a scientific cultural "third place"

François Millet [1], Matthieu Debar [1], Matthieu Le Solliec [2], Quentin Laloux [1]

1 Le Dôme, France; 2 Casus Belli, France

Le Dôme is an open science center base in Caen, Normandy. Le Dôme is a cultural institution organised as a collaborative place. Open to many publics, especially 15-25 years old, it gives to anybody the opportunity to participate in open research and innovation, with its LivingLab methodology and FabLab equipment. Its program is based on the proposals brought by the actors of the territory in all fields related to science and technology : city of tomorrow, disability and handicap, digital transition, Internet of Things and Objects, Artificial Intelligency, energetic transition and sustainable developpement, …

One of the original features of the Dome is to offer mainly workshops to its public. The invitation is to come to test, contribute, imagine, design and prototype new objects and projects in dialogue with researchers, business, associations, educational, cultural and artistic actors.

Those activities have revealed some questions common to many institutions and « third place » comparable to Le Dôme :

• How to report on informal education pathways related to these activities?

• How to ensure and maintain individual contributions in collective approaches?

• How to show the skills of the different networks we animate or contribute to ?

• How to recognise, represent and eval the impact of such activities ?

Open Badges have rapidly become important tools for answering these questions. It is in this context that Le Dôme joined « Badgeons la Normandie ».

That is why, Le Dôme is experimenting many open badges use-cases with his public and stakeholders since 2017. Today, Le Dôme has the capacity to deliver badges to all of his publics and progressively extend open badge to all its programming. It's one of the first establishment in France to deliver Open Badges massively, internally and externally with a protocol and a methodology that spread to its partners. A first step in building a trusted recognition ecosystem.

In this contribution, we will present:

• our différents Open Badge design expérimentations, espacially in favour of inclusive of young people

• our protocol for creating the Open Badges ecosystem imagined by Le Dôme

• our methods of distribution to the partners, during events, training, workshops or participative meeting,

• a use cases mapping for science center or cultural institution organised as « third-places »

Finally, we focus on the LivingLab methodology - sustained by Europe and the Région Normandie, with the contribution of « Badgeons la Normandie » - that Le Dôme applies to develop future open badges use-cases.

Living Labs encourage the influence of the population in the development of services and innovative projects. This methodology favour those projects which enhance users curiosity, knowledge and skills, while encouraging a culture of enterprise and innovation.

In the same time, LivingLabs support local authorities' dialogue with their citizens and the incubation of public policies. They contribute to territorial organisation, both on a social and economic level. Le Dôme see Living Labs as a means to inject fresh ideas and impetus into the mediation methods it use with the public. This approach modernises and updates practices inherited from active learning and participative citizenship. The focus is on dialogue and co-construction.

A Living Lab makes it possible to transform visitors into experimenters, users or even in some cases co-designers of a theory, technology or usage. This new form of involvement helps raise awareness of the developmental challenges of contemporary societies. This methodology favour those projects which enhance users curiosity, knowledge and skills, while encouraging a culture of enterprise and innovation.

A methodology which seems particularly adapted to the open recognition.

Tell us how you recognise… (Understanding how recognition processes operate and how to improve/open them)

Chiara Carlino [1], Dominic Orr [2]

1 Cineca, Italy, 2 FiBS

Organised by MIRVA (Making Informal Recognition Visible and Actionable), the workshop aims at building a better understanding of actual recognition, how does recognition happen, how it could/should happen and what should be done to achieve desirable recognition. The contributions of the participants will be used to inform a series of Guidelines for the implementation of Recognition: for communities and individuals, organisations and practitioners, technology providers and institutions of formal education.

Working in small groups, the participants will fill in a survey / answer a few questions to describe the different ways they currently see recognition happening (people, frameworks and tools involved, formality level, etc) and how they would like to see it happen. Each group will then report to the whole assembly so that relevant points can be shared and discussed.

Participants at the OR Week not present at ePIC will be involved through a conference call that will - at the same time - provide them with a visibility opportunity and allow them to participate in the activities of the workshop providing their own contribution.

About recognition

The collection of recognition stories during Open Recognition week demonstrates that recognition is happening in many different ways: people and institutions need to be more aware of the relevance of such process and how it impacts everybody's work and reputation, and the productive system overall. In this perspective we'd like to have a broad overview of what can be intended as recognition, of the ways it currently happens and of the cases that are currently not or poorly covered. We would like to reflect together with the participants on what roles existing framework may plays, what best practices should be shared and what technological support could be perceived as enabling positive and desirable scenarios.

About MIRVA

MIRVA (Making Informal Recognition Visible and Actionable) is an Erasmus+ project funded by the European Commission.

Open Recognition in Belgium: Presentation of 2 innovation projects developed during Summer of Code 2018

Bert Jehoul

Open Knowledge Belgium, Belgium

Summer of Code is a 4-week summer programme organised by **Open Knowledge Belgium** in July, to provide students the **training**, **network** and **support** necessary to transform **open innovation projects** into powerful real-world services.

In this year's edition **72** talented developers, designers and communication students worked on **17** different projects.

2 of those projects made specific use of the Open Badges standard & built further on the concept of Open Recognition:

· **Gentlestudent**: a native app developed with Arteveldehogeschool as partner. The app motivates students to engage in learning opportunities all over the city of Ghent and uses the Open Badges Standard to give recognition for that learning.

· **Bskilled - Brecognised - Bconnected:** An open recognition app to get acknowledged for your skills by letting your peers endorse and verify your qualities in an easy, reliable and standardized way. Partners in this project were VDAB, Poolstok, Compass Breda, Cognisone , The Learning Hub & Cronos.

Together with the students who build these innovative apps, we will give a presentation on the concept of Open Summer of Code, a demo of the apps that were developed and we discuss the vision behind it together with the partners of the project that will join in. (Arteveldehogeschool , VDAB, Poolstok, Compass Breda, Cognisone , The Learning Hub & Cronos)

We will also dive into future possible use cases of these apps and how these fit in the total ecosystem of already existing Open Badges services.

To end we will discuss about the current state of Open Recognition in Belgium and how local recognition networks could emerge as a part of the ongoing Open Recognition week.

Transversal Skills And Digital Certifications

Maria Cristina Messa, Paolo Cherubini, Laura Appiani

Università degli Studi di Milano-Bicocca, Italy

"Transversal skills" and "key skills" are considered indispensable for the success of a graduate, regardless of his/her subject area. In universities "transversal skills" are a topic of great importance, which requires the utmost attention so that the teaching staff and student representatives can appreciate their value and share their implementation methods.

We can distinguish transversal skills in "**already taught**", "**directly teachable**", and "**supportable**" within the university and analyze the problematic aspects that affect the nature and function of our training offer and the role and profile of our teachers and students.

In the Italian system the ECTS credits dedicated to transversal skills are few. It is very difficult to convince the lecturers responsible for the courses to "sacrifice" ECTS credits to open large curricular spaces associated with credits reserved for educational activities for **directly teachable** transversal skills.

For "**supportable**" skills: there are at least two orders of problems. The development of these skills is supported (a) by the teaching style used by our teachers, and (b) by the participation of our students in a wide range of activities not directly related to the themes of their studies. For (a) Italian professors mainly use frontal teaching and traditional textbooks. To teach how to use methods more suitable for "digital natives" effectively, and to change their attitude towards them, we need faculty development courses, and we need to stimulate interest and motivate professors to attend them. For (b) the experience not only Italian, but also European, is that only a fraction of the students - within 10% - benefits from these activities. The question is how to convince more students to dedicate themselves to these activities with continuity and commitment? Europe tries to address them with indications and guidelines. See, for example: the "European Standards & Guidelines for Quality Assurance" issued by the Ministers of the European Higher Education Area (EHEA) in 2015.

At the University of Milano-Bicocca we have built a relatively wide range of cultural and training paths useful for "supporting" transversal skills, and prepared and started to provide optional faculty development courses for our teachers.

We decided to adopt Open Badges for both curricular and extracurricular activities that can certify with all the authority of the university institution the activities carried out by the student and the skills he/she has acquired. We refer to the BESTR website for the technical and functional introduction to the Open Badges.

The student representatives accepted the idea with enthusiasm from the first moment. The teachers, who initially did not attach much importance to the new forms of recognition, over time have learned to appreciate it - so much so that most of the production of new badges today takes place on the proposal of the teachers themselves.

The main results already achieved are: the participation of students in the paths and activities for transversal skills has significantly increased, the students themselves asked for the development of the "Degree Open Badges", several other Italian public universities, in the wake of the success achieved in Milano-Bicocca, have begun to recognise Open Badges with similar uses and goals.

The construction of the Degree Badges has anticipated the indication contained in the political document of the conference of Ministers EHEA of May 2018, which underlines the importance of transparent, safe, machine-readable and easily transmissible digital certifications for the skills as regards the qualifications of our graduates. If issued by a large number of Universities, the Degree Open Badges in the medium term could prove to be a useful European instrument for visibility, transparency, and mutual recognition of qualifications (combining the digital Diploma Supplement).

Together with CINECA we are planning, for 2019, the next "evolutionary leap" of the Open Badges, registering them with BlockChain technology through the Cineca Open Ledger platform. If already in their current form the Open Badges are hardly falsifiable, once they are encrypted in BlockChain they will be virtually indestructible and inalienable certifications, like real digital currencies.

The success and growth of the initiative in the long term depends on its spread. If students of many universities have their skills, extracurricular activities, and qualification certified through Open Badges, then the world of work will get used to seeking, and requesting, these forms of certification in the initial phases of personnel selection for "skills and qualifications".

In doing so, the companies and institutions that hire our graduates will begin to provide their endorsement to the certifications themselves, recommending those found valid, useful and truthful, and not recommending other less solid ones. In the long term, this direct feedback from the world of employment to university degrees and certifications can contribute, with an independent, non-self-referential measure strictly linked to the needs of the stakeholders, to the evaluation of the teaching effectiveness of the universities.

ePortfolios and Open Badges for Open Recognition of Lifelong Learning Outcomes in Master's Students Training

Olga Smolyaninova

Siberian Federal University, Russian Federation

Supporting the initiative of the BOARD *(Bologna Open Recognition Declaration)* at School of Education, Psychology and Sociology, Siberian Federal University (SEPS SibFU) the strategy of training Masters in Education for the development of open ecosystems in the digital space Yenisei Siberia was developed. There are three key ideas of the strategy. The first is improving the quality of training students of pedagogical major by engaging them in the modern digital environment of the Federal University as well as using e-learning and MOOCs. The second is the expansion and opening borders by the methodology of open recognition of the outcomes of formal and non-formal education. It involves building trust and digital identity to empower and support students' engagement. The third is introducing the ePortfolio and Open Badges technologies to students through the special course for undergraduates in the model of blended learning.

Digital educational environments of Federal University are represented by the following resources: e-courses on the LMS Moodle (https://e.sfu-kras.ru/login/index.php), personal e-portfolio, massive open online courses; personal profile of a student (https://i.sfu-kras.ru/); webinars and video conferences service (https://webinar.sfu-kras.ru); personal managing service account (user.sfu-kras.ru).

The e-portfolio is well known in the Russian education practice and has long been used in the system of training future teachers. We use this technology in the training paradigm (Bachelor's, Master's, postgraduate, professional training and retraining) to represent achievements, their assessment, reflection on personal and professional development. The methodology of open recognition of educational outcomes is a rather controversial issue for the professional pedagogical community of Russia. The technology of Open Badges is not well-known and popular among both students and teachers. Only 1% of professors and 5% of students are familiar to it according to the express survey in Siberian Federal University. Using Open Badges in the Russian higher education system is only an initiative of individual teachers. Russian conservatism and traditionalism in assessment, as well as teacher's stereotypes of "insularity", "protection", "borders" hamper the perception and dissemination of the new Open recognition methodology.

A new subject "Open Recognition and e-Portfolio technologies in Life Long Learning" was introduced in the Master's course "Education Science"(108 students) in 2017 to overcome these barriers. As a part of the discipline, students learned and "absorbed" the ideology of open recognition by mastering the Open Badges for the first time.

Online support of the course in the digital environment of SibFU is available at https://e.sfu-kras.ru/course/view.php?id=13761. The course is done in blended learning, using interactive pedagogical technologies: discussions, project activities, business games, data modeling. The course consists of four modules:

- Module 1: Methodology of open education. Open assessment technology.

- Module 2: Open technologies and open education standards. VPL evaluation technology.

- Module 3: Methodology and technology of Open Badges in education and career.

- Module 4: ePortfolio and Digital Identity.

The activity of students in the development of the course is the design, evaluation of soft skills and professional competencies, the creation of individual Learning Agenda, the development of ePortfolio and Open Badges.

The methodology and materials of the Master's course were presented in the e-learning course. The Open Badges projects designed by students for the evaluation of professional and soft competencies were published on the individual e-portfolios and students tested them during the teaching internship. The study confirmed the hypothesis about the prospects of the ideology of open recognition and the use of modern educational technologies in the training of future teachers at the Federal University. The google-survey revealed that the students were utterly satisfied with implementing E-portfolio & Open Badges in learning.

Professional recognition: Discussion on the transfer of ePortfolio practices from teacher training to the workplace and how OpenBadges can foster it

Dominique-Alain Jan

The Open University, Switzerland

English version

In my thesis, 'ePortolios from teacher training to the workplace', I interviewed teachers, their supervisors at their current workplace, and their former tutors at their teacher training college. The aim of my research was to develop a model to understand whether and how ePortfolio practices were transferred from training to the workplace. Based on Engeström's Activity Theory triangle, my model identified that personal and professional recognition by peers was a key driver in the decision to continue or abandon such practices. During my talk I will present my model and some of my findings and show how participants perceive OpenBadges and Wenger's Community of Practice (CoP) as incentives for continuing and developing ePortfolio practices.

Version française

Reconnaissance en situation professionnelle : Discussion sur le transfert des pratiques du ePortfolio des enseignants entre le lieu d'apprentissage et milieu professionnel et en en quoi les OpenBadges permettent d'améliorer cela.

Dans ma thèse sur le transfert des pratiques de l'ePortfolio de la formation des enseignants du secondaire supérieur à leur place de travail, j'ai interrogé des enseignants, leurs répondants dans leurs lycées, ainsi que les formateurs qui'ils ont eus durant leur période de formation d'enseignant. Le but de ma recherche était de développer un modèle pour comprendre si / quelles pratiques du ePortfolio étaient transférées du lieu de formation au milieu professionnel. Mon modèle basé sur la théorie de l'activité aussi appelée triangle d'Engeström, montre que l'élément principal qui conduit à la décision de continuer ou d'arrêter le développement de pratiques liées à l'ePortfolio est la reconnaissance de soi et de ses aptitudes professionnelles par les pairs. Durant mon exposé, je vais présenter brièvement mon modèle et quelques éléments de l'analyse de mes données ; je montrerais

aussi comment les participants perçoivent les badges ouverts et les communautés de pratiques, développées notamment par Wenger, comme des incitations à continuer et développer les pratiques liées au ePortfolio.

Bestr: building a national wide open badges ecosystem starting by Italian universities

Marica Franchi

Cineca, Italy

In 2015 Cineca, the Italian Consortium supporting the digitalisation processes of the Italian universities, set up Bestr, the first Italian Open Badges platform, publishing 80 organisations and 700+ Badge classes from ever since.

The latest statistics about Bestr show that the number of organisations grows slowly and steadily for all types of organisations (trainers, associations, companies and universities). In particular universities incremented by 10% the number of published badges compared to previous year (2017) and in 2018 the adoption of Bestr by Italian universities associated with Cineca grew by 20%. Furthermore, the use of badges as digital support for credits recognition is growing: 30% of badges issued by Universities was transformed in credits or educational qualifications into Student Information System.

Many universities provide extra-curricular activities (e.g. in order to improve transversal skills) and they needed a solution for recognising participation and involvement of students: open badges fixed the blank. In higher education, Bestr has an excellent point of market entry in University Language Centers: as in extra-curricular activities, the service provides both automatic badge issuing, with integration of several information systems using xAPI standard, and automatic recognition of educational qualifications or credits into Student Information System, digitizing a manual and complex process.

Bestr has high perspectives and it is in a special 'Fear Of Missing Out' (FOMO) phase: the conference of Italian universities deans (CRUI) endorses Open Badges and Bestr on an official document (June 2018) and universities express their intention to join Bestr because "an excellent university should not stay out of Bestr". They should not miss the chance.

Moreover a promising area of application of Open Badges and Bestr will be Universities Career Services which need to maximize employability of students and graduates; ANPAL (National Agency for Active Labour Policies by Ministry of Labour and Social Policies) collaborates in setting up of career services and it is an important key relationship for Bestr ecosystem development.

Bestr is evolving and widening its functionalities due to high and growing demand of Bestr organisations. The platform introduced pathways, where several badges are selected and linked together in order to create new paths for personal or professional growth and to monitor how new professional profiles are developed. In addition, Bestr supports the integration of SPID (the platform will provide access through the Italian Public Digital Identity System). Moreover the feature of degrees verification by Blockchains is available: open badges are already applied in Bestr for degrees conferral in order to improve

communication of gained skills by students and to show outcomes and evidences related to educational qualifications and recently, satisfying universities request, Bestr catches challenge of exploiting Blockchains in order to make educational qualifications secure and easily and quickly verifiable.

Distributed Trust for Humanitarian and Educational Impact

Julie Keane

Participate, United States of America

Julie Keane and Heather LaGarde will facilitate a conversation to discuss specific, and across sector, examples of how new technologies (blockchain, open digital badges, etc.) support sharing economies that connect us and provide new levels of engagement and impact on hyper local and scalable global levels. The focus of the discussion will draw from the presenters' experience of bringing diverse communities together to learn, collaborate, and address the world's most complex challenges from global health to education.

Julie Keane, Director of Research at Participate (an educator professional learning organisation based in Chapel Hill, NC, USA), has focused on connecting educators from around the world in online learning communities of practice. Participating in effective online CoPs has benefits such as:

- Sustained changes in teaching practice over time

- More equitable access to new knowledge and strategies

- An extension of face-to-face learning experiences

- Supporting multiple cycles of presentation, integration and reflection on learned knowledge.

Dr. Keane will explore and discuss the need for radical changes in professional development as a direct result of the rapid and transformative technological and societal changes that demand new learning models in the classroom - both for students and for educators. Participate has built a peer-driven digital badging system launched in 2016 that issued more than 3500 badges. It provides teachers opportunities for mentorship, feedback, and a more collaborative recognition that is built on trust and not a reification and replication of existing top down systems of accountability. The successes and challenges of scaling this efforts particularly within the K-12 public education system in the U.S will be explored.

Heather LaGarde is the Senior Advisor for Strategic Partnerships and runs SwitchPoint a gathering of diverse global thinkers merging ideas, sharing breakthroughs, tools and lessons with a wide focus on humanitarian innovation, creativity, technology and global health. Now in it's 8th year, the SwitchPoint global conference launch, produced by IntraHealth International. SwitchPoint is a highly engaging and interactive event, part conference, part retreat, featuring formal and informal presentations, interactive microlabs, field trips, performances and high level networking fostering unusual and impactful collaborations. It brings extraordinary thinkers from all over the world to a unique retreat setting where the curious, and the creative from all circles of humanitarian and global development work can

come together, share ideas and collaborate. Heather will engage participants in a discussion about the technologies that support, extend, and empower the collaborations and projects that have been sparked by this event.

ABSTRACTS (French)

Décoloniser La Validation Des Acquis De L'expérience

Patrick Werquin

Conservatoire national des arts et métiers, Cnam ; et Institut national d'étude du travail et d'orientation professionnelle, Inetop, France

Il est fréquent – notamment en Afrique francophone – d'être face à des situations où la description qui est donnée par les acteurs locaux de la reconnaissance des acquis d'apprentissages non formels et informels ressemble à s'y méprendre à la*validation des acquis de l'expérience*(VAE) telle qu'appliquée en France depuis la loi de Modernisation sociale de 2002. Cette contribution met en garde contre une possible confusion. Il montre en effet que la validation des acquis de l'expérience n'est qu'une forme particulière de reconnaissance des acquis d'apprentissages non formels et informels. Il montre pourquoi c'est en outre une forme contraignante, et affirme ainsi que la validation des acquis de l'expérience à la française n'est pas forcément l'approche la plus souhaitable dans toutes les situations, dans tous les pays, et pour tou.te.s les candidat.e.s.

Certains pays, si ce n'est tous, ont besoin de mettre en place des approches pour valider et reconnaitre les compétences acquises hors des circuits formels exemplifiés par l'école, le centre de formation professionnelle, ou l'université. L'approche française de type *validation des acquis de l'expérience*a le mérite d'exister et donc de proposer une solution de type « clef en main » aux décideurs des pays intéressés ; par exemple parce qu'une fraction de leur population disposerait de compétences non encore reconnues. Si transposer la *validation des acquis de l'expérience*à l'identique dans un autre pays est confortable parce qu'elle permet de minimiser le travail conceptuel préparatoire, l'approche française a des inconvénients, notamment parce qu'elle est consommatrice de ressources (pour l'accompagnement et l'évaluation par exemple), et qu'elle est extrême puisqu'elle est construite pour aller jusqu'à la certification de tous les acquis d'apprentissages, et donc jusqu'à l'attribution d'une certification complète. En outre, dans l'approche française c'est rigoureusement la même certification qui est délivré aux candidat.e.s qui ont réussi, ce qui pose des problèmes même en France.

Pour expliquer pourquoi le risque est grand d'appliquer la *validation des acquis de l'expérience*à l'identique hors de France, cette contribution décrit les caractéristiques les plus spécifiques de l'approche française. Elle montre en quoi les appliquer ailleurs, sans adaptation ni ajustements à la culture locale, présente un risque. Elle insiste notamment sur le fait que validation technique (par des évaluateurs du monde de l'éducation par exemple) n'engendre pas forcément reconnaissance sociétale (par les employeurs notamment) et que le choc culturel est parfois trop important pour que les parties prenantes clefs d'un pays acceptent une certification obtenue par *validation des acquis de l'expérience*comme preuve de compétences.

Cette attribution décrit enfin les alternatives à une approche pure par *validation des acquis de l'expérience*(par exemple exemptions, crédits, certificat), et explique en quoi elles sont pertinentes dans certains contextes, et souvent plus souhaitables parce que plus douce et moins en rupture avec les pratiques locales.

Au total, la reconnaissance des acquis d'apprentissages non formels et informels est plus une philosophie – celle d'accepter que tout le monde apprend partout et tout le temps, et

que les acquis d'apprentissage qui en découlent doivent être valorisés, voire valider s'ils sont évalués de manière fiable et robuste – qu'une méthode. La validation des acquis de l'expérience est la plus extrême des méthodes possibles, et le fait qu'elle puisse réussir, dans un contexte donné, ne signifie pas que ce soit une solution universelle.

Décoloniser la validation des acquis de l'expérience permettrait de mieux la comprendre, et donc de pouvoir l'adapter, ce qui semble être un minimum pour l'utiliser hors de France.

Cadre de référence » pour quels usages et dans quelles conditions pour promouvoir la Reconnaissance en APP

Laure Pillias

APapp, France

Le réseau des APP a développé un dispositif de validation des acquis d'expérience permettant de rendre visible un processus de mobilisation et de développement de compétences transversales, selon les principes de l'autoformation accompagnée et de la pratique réflexive de l'apprenant. Dans le dispositif de validation APP, la notion de « référentiel » a été remplacée par celle de « cadre de référence ». Le « cadre de référence » est utilisé comme « grille de lecture et d'aide à la formalisation » permettant d'identifier et nommer les compétences et non de les étalonner. Cette grille de lecture permet de prendre conscience, en les identifiant dans un cadre défini, des compétences effectivement mobilisées par les apprenants ; tout en les nommant, elle permet de les reconnaître et en promeut ainsi la valeur et l'importance. Avec le dispositif APP, le réseau des APP, introduit un nouveau mode de validation/certification alliant organisation apprenante et nouvelles technologies de la Re-connaissance par les badges numériques et s'inscrit dans une démarche engagée d'inclusion et de cohésion sociale.

A la suite d'une présentation de ce dispositif de validation innovant, le réseau des APP mettra en discussion la problématique en lien avec l'usage d'un « cadre de référence » en lieu et place d'un « référentiel »

Identifier et reconnaître les compétences des salariés en parcours d'insertion

Schany Taix [1], Eric Beasse [2], Yves Vernon [3], Muriel Moujeard [4], Laure Pillias [3]

1 Fédération Nationale des CIBC, 2 Fédération COORACE, 3 Association nationale des APP, 4 CIBC Normandie

COORACE, fédération nationale de l'économie sociale et solidaire, rassemble 548 entreprises militantes, constituées notamment sous la forme de structures d'insertion par

l'activité économique (SIAE). Elles interviennent dans de nombreux secteurs d'activité et emploient près de 70 000 personnes par an.

Les Ateliers de Pédagogie Personnalisée (APP) permettent l'accès aux savoirs de base et aux compétences clés européennes à tout public adulte, par une démarche pédagogique active. L'Association pour la promotion des APP est un des porteurs de la Charte pour l'accès de tous aux compétences clés.

Spécialistes de la sécurisation des parcours professionnels, les CIBC interviennent auprès des actifs, des entreprises, et des territoires pour accompagner les mobilités.

Ces trois réseaux ont pour point commun leur ancrage territorial, et la volonté de développer le pouvoir d'action des personnes, par une démarche pédagogique ou l'apprenant est acteur de ses apprentissages. En partant de l'exemple de collaborations initiées en Normandie, les représentants de ces trois réseaux nationaux proposent de développer une réflexion commune sur l'articulation entre identification, acquisition et reconnaissance des compétences des salariés en parcours d'insertion :

Comment personnaliser les parcours ? Identification des compétences et mise en place de situations d'apprentissage

Quelles modalités de reconnaissance pour quels objectifs ?

Quel éco-système d'acteurs : emploi, formation, insertion, acteurs économiques ?

DIA#LOG : l'identification et la valorisation de ses compétences comme préalable à la reconnaissance.

Eden Jean-Marie, Muriel Moujeard

CIBC NORMANDIE, France

La communauté DIA#LOG développée par le CIBC Normandie au sein de l'application mobile (smartphone et tablettes) DAYTRIPPER! a pour vocation l'accompagnement des personnes à l'identification et la valorisation de compétences comportementales (softskills).

Cette solution pédagogique (DIA#LOG) originellement développée dans le but de permettre la valorisation des compétences et expériences des personnes, et d'amener ces dernières à communiquer stratégiquement quant à leurs compétences, fonctionne via une application (DAYTRIPPER!) adoptant une forme familière, et un usage intuitif.

Ce développement a été le fruit d'une co-construction continue et a fait l'objet d'une participation active de personnes accompagnées dans le cadre de leur insertion professionnelle et de professionnels de l'accompagnement. C'est au cours des recherches-actions réalisées avec les partenaires régionaux, et grâce aux retours sur expériences des utilisateurs que l'application à progressivement revêtit sa forme et son fonctionnement actuels.

L'utilisateur est amené à capturer une expérience via l'application sous forme d'une photographie. Cette expérience sera la base de l'identification de plusieurs éléments de contextes (localisation du moment, horaire et date). L'utilisateur sera invité à décrire cette

expérience, à y faire correspondre, s'il le souhaite, un hashtag permettant la catégorisation de sa publication, et à y identifier des compétences comportementales au sein d'un référentiel propre à la communauté.

Le choix du référentiel s'est porté sur des compétences dites « douces » (softskills), et favoriser le repérage des compétences comportementales plutôt que des compétences techniques est voulu. Il est cependant possible, comme pour les hashtags, de personnaliser et donc d'ajouter une compétence de son choix.

L'identification de compétences consiste à renseigner le degré de mobilisation de ces dernières (sur une échelle en 5 points allant de « pas mobilisée » jusqu'à « totalement mobilisée »). Il ne s'agit pas ici de performance, et de distinguer le meilleur du moins bon, mais bien de reconnaitre la présence ou non d'une compétence.

L'utilisateur dispose à mesure de son utilisation, et de l'ajout de nouvelles expériences, d'un journal personnel compilant les expériences professionnelles, extras professionnelles, au sein desquelles il estime avoir mobiliser des compétences. Après avoir pris un certain recul sur celles-ci, une fois le développement d'une réflexion quant aux expériences concernées, l'utilisateur sera en mesure de produire un visuel spécifique à une communication ciblée : une story.

Rendre compte d'expériences via des story, (publications numériques ou papiers en format A4 ou A3) ou de ses atouts via un portrait (publication numérique ou papier en format A4) permet un storytelling. Le participant se raconte par la réalisation de documents esthétiques, et grâce à leurs formes signifiantes (un chemin pour le parcours, une fusée pour l'évolution ou la croissance etc…). Ces derniers présentent l'avantage de se réaliser de manière automatique via l'application, et ne nécessitent pas d'étape de création. Seule la sélection des éléments souhaités est nécessaire.

Si l'utilisation de cette solution pédagogique permet l'identification de compétences en contexte, et la valorisation de ses propres compétences, ou de celles d'autrui, on comprend en quoi celle-ci peut également intervenir comme outil de production d'éléments de preuve. Et agir comme partie prenante d'un dispositif de reconnaissance.

Car si l'obtention d'un badge est directement dépendant des critères qui auront pu être satisfaits par le demandeur au moment de remplir le formulaire, DIA#LOG peut constituer une opportunité et une étape du processus de reconnaissance.

Nous souhaitons présenter le dispositif précédemment décris. De l'explication de l'origine du développement de DIA#LOG, jusqu'à la réalisation de publications permettant l'obtention d'un badge.

Pour ce faire, nous présenterons le parcours « type » d'un utilisateur, de sa participation à la co-construction du dispositif, en passant par les étapes d'appropriation et d'utilisation de l'appli, jusqu'à la réalisation d'une story mettant en scène une expérience donnée, lui permettant de prétendre à la demande d'un badge.

Ces différentes étapes permettront de rendre compte du parcours de reconnaissance de la personne.

Mettre le Numérique au Service de la Reconnaissance des Compétences de Chacun

Mathias Dufour

#Leplusimportant, France

Notre enjeu : comment utiliser le numérique pour développer de nouvelles approches de reconnaissance et de valorisation des compétences au service d'un fonctionnement plus efficace du marché externe du travail et des marchés internes aux entreprises, en particulier pour les personnes peu qualifiées ou peu dotées en diplômes et en capital social.

L'ensemble des parties prenantes (Education Nationale, Enseignement Supérieur, Ministère du travail, structures de formation et d'orientation, entreprises privées...) gagneront à promouvoir un « espace numérique de valorisation des compétences » de chaque citoyen. Cette démarche sociale contribuera à une société plus inclusive ; elle permettra de valoriser les compétences individuelles, de les enrichir et d'assurer à chacun une meilleure intégration dans le monde du travail.

Ce que nous cherchons à faire est à promouvoir un "espace numérique de valorisation des compétences" de chaque travailleur. Pour y parvenir nous proposons un plan d'action en plusieurs axes :

I Mettre en place les bases minimales de cet espace numérique

- Nous suggérons d'élargir l'API du CPF pour que chacun puisse disposer d'un espace "mon passeport de compétences", que chacun ait la possibilité de rendre public

- Nous proposons que toute action de formation financée par le CPF conduise obligatoirement à enrichir le "passeport de compétences" d'un certificat numérique de suivi de la formation

- Afin de donner un caractère plus complet sur le profil professionnel et de compétences de chacun, nous proposons également que tous les organismes délivrant des diplômes reconnus publiquement doivent délivrer des certificats qui enrichissent ce "passeport de compétences"

- Inciter les acteurs à enrichir cet espace numérique

- Les formations non financées par le CPF et délivrées doivent également pouvoir nourrir ce "passeport de compétences"

- Au-delà de la formation initiale et de la formation continue, les entreprises doivent également pouvoir délivrer des certificats qui vont enrichir le "passeport de compétences"

II Favoriser la mise en place d'un écosystème renforçant la valeur d'usage du "passeport de compétences

- Développer un "wikiskills", référentiel public de compétences co-élaboré et mis à jour en permanence par l'ensemble des acteurs (en articulation directe avec le répertoire des métiers ROME existant). Ce wikiskills en open source permet à chacun d'ajuster le

référentiel en temps réel. Il faudrait figer tous les 6 mois une nouvelle version de référentiel afin de remettre à jour les badges si nécessaire

- Développer une offre publique d'accompagnement des personnes dans l'utilisation et la valorisation de leur musette numérique (ciblées sur les jeunes et les personnes peu qualifiées) incluant des outils de diagnostic de potentiel et des questionnaires d'identification de potentielles compétences (exemple anglais, pour les étudiants) mettant en avant les différentes expériences scolaire et extra scolaire (école, professionnel, associatif, et autres)

- Proposer proactivement des service d'orientation aux personnes ayant peu de badges, ex. via une discussion en 1:1 avec un spécialiste afin (1) d'identifier les compétences existantes et les convertir en badges et (2) s'inscrire dans un parcours de formation et professionnel redéfini à l'aune des compétences effectives que la personne aura pu valoriser. Envisager des solutions de "coaching augmenté" (cf expérience Chance)

- Mettre en place des dispositifs ("VAE 4.0") pour accorder des diplômes à partir de "blocs de badges numériques " pour toucher un public plus large que la VAE, il importe que les diplômes / qualifications reconnues portent sur des périmètres de compétences moins larges, afin d'être plus accessibles importance également d'inscrire ces diplômes dans une logique de parcours : on peut imaginer de construire des "briques" de diplômes que l'on pourrait obtenir au fur et à mesure

www.leplusimportant.org

#Leplusimportant, association indépendante fondée fin 2017, rassemble et met en action déjà plus de 160 membres de tous âges et tous horizons (consultants, hauts fonctionnaires, startupers, entrepreneurs sociaux, chercheurs, juristes, cadres de grands groupes, enseignants…). Nous agissons pour développer les capacités et compétences individuelles (capital humain) de nos concitoyens pour permettre à chacun de trouver une place et un avenir dans notre société en pleine mutation. Nous voulons ainsi favoriser l'égalité des chances et une société inclusive et lutter contre l'insécurité économique, en particulier parmi les moins favorisés et les classes moyennes. Pour un exemple de nos travaux récents, qui ont fait l'objet d'un colloque à France Stratégie avec les partenaires sociaux et les plateformes numériques d'emploi, conclu par le secrétaire d'Etat au Numérique Mounir Mahjoubi.

https://leplusimportant.org/2018/02/08/favoriser-le-developpement-professionnel-des-travailleurs-des-plateformes-numeriques/

Reconnaissance

Claire Hebert Suffrin

Réseaux d'échanges réciproques de savoirs, France

C'est à partir de mes expériences d'enseignante, de mes pratiques, recherches et formation dans les Réseaux d'échanges réciproques de savoirs® que je vais développer quelques-

unes des attentions qui peuvent faire avancer sur la question de la reconnaissance et des reconnaissances.

Première attention

La reconnaissance comme a priori d'un projet.

La reconnaissance est nécessaire comme a priori à tout projet, toute démarche, tout outil, qui affirme vouloir des effets de reconnaissance.

[…]

Deuxième attention

La reconnaissance nécessaire dans les « fondements » d'un projet.

La reconnaissance devra être présente dans les fondements d'un projet, d'une démarche, de situations qui veulent la promouvoir.

[…]

Troisième attention

La reconnaissance à toutes les étapes de la mise en œuvre d'un projet, d'une démarche, d'un processus d'apprentissage.

Elle sera un « fil conducteur », un des fils rouges (ce qui rend si solide la corde du marin) du processus d'apprentissage, de la mise en œuvre des situations d'apprentissages proposées.

[…]

Quatrième attention

La reconnaissance dite par les personnes concernées

Il nous semble essentiel que la reconnaissance puisse d'abord être dite, exprimée, formulée comme effets vécus par « les personnes concernées » ! C'est à elle d'en dire les effets.

[…]

Cinquième attention

Les compétences psychosociales liées à la reconnaissance

Ne jamais négliger (étymologiquement, négliger, c'est ne pas relier !) les compétences psychosociales qui favorisent la reconnaissance. Ne pas oublier que la reconnaissance, la capacité de reconnaitre autrui est une compétence psychosociale.

[…]

Sixième attention

Reconnaitre, ça s'apprend

Reconnaitre autrui, être reconnu, se savoir reconnu, se reconnaitre réciproquement, oui, ça s'apprend ! Comment ?

[…]

Annex

SLIDES

All slides and presentations that have been uploaded to us are available at this URL:

https://epic.openrecognition.org/portfolio/slides-of-epic-2018s-proceedings/

CONFERENCE AGENDA

Wednesday, 24/Oct/2018

8:30am	**Welcome and registration**
9:30am **Amphiteatre**	**Workshop — Addressing the #OpenRecognition Challenges** Session Chair: **Nate Otto**
9:30am **Open Space 1**	**Workshop — Open Badges 101: Create your own badge** Session Chair: **Emilie Lenel** Session Chair: **Eric Rousselle** During this session participants will create their *Personal Recognition Environment* and learn how to create Open Badge.
11:00am	**Coffee Break**
11:30am **Amphiteatre**	**Addressing the trust challenge to create #OpenRecognition Ecosystems** Session Chair: **Serge Ravet** Keynote: • **François Taddei,** CRI, France • **Ruben Verborgh,** Ghent University, Belgium Panel discussion: • **Serge Ravet, Reconnaître** - Open Recognition Alliance, Bit of Trust, France • **Nate Otto**, Concentric Sky, USA • **Bert Jehoul**, Open Knowledge Belgium, Bit of Trust, Belgium • **Agis Papantoniou**, Cognisone, Belgium
1:00pm	**Lunch Break**
2:00pm **Amphiteatre**	**Building a Learning Society** Session Chair: **Philippe Petitqueux** • **The challenges of a territory - David Margueritte**, Vice Président Région Normandie pour l'Apprentissage, France • **Decolonising Recognition - Patrick Werquin**, Cnam, France • **Eric Bruillard**, Université Paris Descartes, France • **Learning territory: reflections around a approach - Jean-Marc Lange**, Université de Montpellier, France, **Maryvonne Dussaux**, Université Paris Créteil Val-de-Marne, **Alexis Durand Jeanson,** Prima Terra
4:00pm	**Coffee break**
4:30pm **Open Space 1**	**Panel discussion — Building learning territories** Session Chair: **Caroline Bélan-Ménagier** Following the previous panel, the participants will explore how to develop city-wide and regional #OpenRecognition initiatives. The workshop will be introduced by a short presentation of different territorial initiatives: • **BOAT, Caroline Belan-Ménagier**, COMUE Leonard de Vinci France • **Badgeons la Région Centre, Mathieu Muselet,** Ligue de l'enseignement France • **Badgeons la Normandie,- Philippe Petitqueux**, DRAAF de Normandie, France • **Breda, City of Learning - Gerard Pruim**, Gear Up, MIRVA, The Netherlands • **Milan Openagri: skills for new jobs - Rossana Torri,** Milan Municipality, Italy • **Cities of Learning Goes Europe - Nerijus Kriauciunas,** Badgecraft, Lithuania
4:30pm	**Workshop — Open Badges 102: Design an OpenRecognition Ecosystem**

Open Space 1	Session Chair: **Eric Rousselle**
	During this second session, participants will explore the different components of an #OpenRecognition ecosystem and draft a design of their own. The workshop will be introduced by a presentation of the experience of a Fablab and its ecosystem.
5:30pm	**Assemblée générale de l'association Reconnaître**
Amphiteatre	Everybody is welcome to attend this open meeting (in French) which is the Annual General Meeting of the French branch of the Open Recognition Alliance
5:30pm	**BOT: Exploring the potential of *bits of trust***
Open Space 1	Session Chair: **Agis Papantoniou** Session Chair: **Bert Jehoul**
	Workshop to explore the potential of bits of trust
7:00pm	**Welcome drink**
Café Rey	A welcome drink is offered to the participants at ePIC *at café Rey, 1 rue du faubourg St Antoine (Place de la Bastille, 5 minutes from the conference venue).*
	Sponsored by bit of trust

Thursday, 25/Oct/2018	
8:30am	**Welcome and registration**
9:00am	**PR21A**
Amphiteatre	Session Chair: **Eric Rousselle**
9:00am	**PR21B**
Open Space 1	
9:00am	**PR21C: Parcours de reconnaissance**
Open Space 2	Session Chair: **Muriel Moujeard**
10:30am	**Coffee Break**
11:00am	**Panel Discussion: Higher Education & #OpenRecognition**
Amphiteatre	Session Chair: **Pierre Beust** Session Chair: **Emilie Lenel**
	With the participation of: • **Isabelle Duchatelle & Isabelle Grand**, Caen University, France • **Bénédicte Froment,** Tours University, France - Badging student engagement experience • **Caroline Belan Ménagier**, Confederal University Leonardo da Vinci, France • **Laura Appiani**, University of Milan Bicocca, Italy • **Marica Franchi**, CINECA, Italy
12:00pm	**#OpenRecognition and the humanitarian sector**
Amphiteatre	Session Chair: **Don Presant** • **HPass and Open Badges: a path towards decolonial humanitarian action? Victoria Fontan**, Institut Bioforce, Humanitarian Academy, France • **HPass Snapshot – lessons learned and next steps. Don Presant**, Pilot Coordinator
1:00pm	**Lunch Break**

2:00pm	**PR22A**
Amphiteatre	
2:00pm	**PR22B**
Open Space 1	
2:00pm	**PR22C: Parcours de reconnaissance**
Open Space 2	Session Chair: **François Millet**
3:00pm	**Coffee Break**
3:30pm	**Panel discussion: The value of #OpenRecognition in employment**
Amphiteatre	**Michel** Diaz, FEFAUR (moderator) with the participation of: • **Jean-Roch HOULLIER**, Thales Learning Hub International Learning and Digital Director • **Eric BARILLAND**, Orange, VP Skills Management & Partnership
4:30pm	**#OpenRecognition Week**
Amphiteatre	Session Chair: **Serge Ravet** Meet the participants of the #OpenRecognition Week who have contributed to the creation of the **World Wide Web of Trust!**
4:30pm	**Parcours de reconnaissance**
Open Space 2	Session Chair: **Laure Pillias**
5:30pm	**#OpenRecognition Week**
Amphiteatre	Meet the participants of the #OpenRecognition Week who have contributed to the creation of the **World Wide Web of Trust!**
5:30pm	**Workshop: Putting digital technology at the service of recognising everyone's skills**
Open Space 2	Session Chair: **Mathias Dufour**
6:30pm	**End of day 2**
7:30pm - 10:30pm	**Social Dinner**
	ePIC has the pleasure to organise this year a **Champagne tasting** with one of the best independent *vigneron* and a dinner in line with the quality of the drinks! A live band will provide music during the evening.

Friday, 26/Oct/2018	
9:00am	**Welcome and registration**
9:30am	**PR31A: Exploring ePortfolios and Open Badges**
Amphiteatre	
9:30am	**Scenario for reciprocal exchanges of knowledge**

158

Open Space 1	Session Chair: **Claire Hebert Suffrin** Workshop on recognition led by Claire Hébert Suffrin
9:30am **Open Space 2**	**Imagining together services for Open badges in Education and Orientation** Session Chair: **François Millet** Using the Living Lab method, we will explore the potential of using Open Badges after they have been issued — beyond displaying them on Facebook or LinkedIn! We will sketch prototypes in the field of education, orientation and employment.
11:30am	**Coffee Break**
12:00pm **Amphiteatre**	**Opening recognition to all** • **Claire Héber Suffrin,** Réseaux des Echanges Réciproques de Savoirs, France • **Eric Rousselle,** Discendum , Finland - **Reflections on the future of Open Badges** • **Julie Keane,** Participate, USA **- Distributed Trust for Humanitarian and Educational Impact** • **Mehdi Gharsallah**, Strategic Advisor for Digital, Directorate General of Higher Education and Professional Integration, France
1:00pm	**Lunch Break**
2:00pm **Amphiteatre**	**Planning the future of Open Recognition** A well established tradition of the ePIC conference is to use the last session of the conference to review what we have learned and how we will use this learning to achieve the agenda of the conference, which this year is: *Building #OpenRecognition Ecosystems*. This year the partners of MIRVA (Making Informal Recognition Visible and Actionable) will introduce and moderate the session.
4:00pm	**Farewell cocktail**