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DigiCulture

O4.3 - Assessment of pilot group - FINAL

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Executive Summary

This report shows the work done so far for the O4.3 Assessment of the pilot group. It covers the work performed from October 2019 to September 2021 on assessment for the DigiCulture MOOC (Massive Open Online Courses). During this period, the DigiCulture project has developed a MOOC, held multiplier events with stakeholders disseminated the courses whilst piloting the courses. Numerous users have enrolled into the DigiCulture courses, participated in course activities and taken an automatically assessed examination to acquire badges and certificates.

The document presents an overview of the number of enrolments (over 2300), completion certifications (over 1200) and various demographic data, along with the interpretations of these numbers and related discussions.

The document is divided into three sections. First, the rationale is described, second the results of the assessment of the pilot group are shown, and finally the results are discussed and concluded.

Who is this document for?

This document for:

- Policy makers who are interested in the learner outcomes and impact from the DigiCulture project.
- Educators who are interested in the methodology for measuring adoption rates of DigiCulture courses and badges.

What topics are addressed in this document

The document addresses the following topics:

- Methodology for collecting quantitative measurements and their interpretation.
- Report on the number of learners participating in the course, the number of badges and certificates issued to learners.
- Reports evidence of learning activity from participants in the DigiCulture courses.

Contributors

This document was developed collaboratively by AAU (leading O4) with input from all partners.

Acknowledgements

Aalborg University is the author of this document. The DigiCulture project partners provided valuable feedback to the process through the transnational meetings and have carried out interviews with learners across the country.

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1   Aims and Scope

The purpose of this document is to document the methods and results from assessment of the pilot group. It documents the quantitative measurements of all the DigiCulture courses and how the courses were adopted over time.

2   Background and rationale

Throughout the DigiCulture course, learners earn badges and certificates which provide incentives for learners to collect (Toups et al., 2016). The application indicated that an assessment of the learners' learning behavior and statistics of collection of badges and certificates would be provided. From the pilot group assessment, it will be possible to identify what opportunities and challenges the DigiCulture project faced as a MOOC (Massive Open Online Course).

The DigiCulture MOOC pilot consists of user online registration, online support through tutoring and monitoring of the learner outcomes, through qualitative measures (via questionnaires) and quantitative measures provided by the DigiCulture MOOC. The pilot was opened for learners over 6 months, where they could choose to enroll in any course modules and complete the courses using the e-assessment tool. Since the e-assessment tool provides pass/fail (See O4.1 Digital Skills E-Assessment Tool), the number of completed enrollments can be used to assess the extent to which learners manage to pass a course. The users who completed the course can then decide to acquire their course badge and use it for promotional purposes, in their CV or portfolio.

Based on the assessment at the end of each module, the final assessment and the E-assessment tool for digital skills, participants' final skills and abilities were evaluated using the tools described at O4.1 and included in the course modules at O3. Each learner received the designated Open Badge according to his/her achievement and/or final evaluation, including their prior assessment badges. Participants in the blended-learning course received formal recognition and validation of their activities (certificates) based on each university and country regulations. The project measured how many of the MOOC participants completed a module or a full course. Certificates with final grades were submitted to all learners upon completion.

3   Methodology, tools and research

To gather information about how many DigiCulture courses have been completed and how many badges were awarded, anonymous data was collected from the database driving Moodle - the e-learning platform behind the DigiCulture MOOC. Using custom SQL queries, information was gathered for each course and loaded into R Studio. Using packages *ggplot* (Wickham H, 2016) and *dplyr* (Wickham H, 2017), the data was aggregated and visualized into bar charts. The following three parameters were in focus:

Badges:

- How many badges were earned.
- How many learners who completed, also unlocked their badges.

Enrollments and Completion

- How many enrollments there were

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- How many enrollments were completed.
- What occupation the enrollments came from.
- The average duration it took to complete the courses.

The pilot assessment ran from March 2021 and ended in September 2021. During the pilot, anyone could freely sign up for the 98 DigiCulture courses, including introductory courses and adapted courses in Romanian, Italian, German, Irish, Lithuanian and Danish.

4   Results

Table 1 describes the total number of enrollments and completions across all 98 courses developed in the DigiCulture project during the pilot period from March 2021 to September 2021. Table 2 describes the enrollments by gender.

Total Enrollments	Total Completions	Total Certificates	Total Badges
2315	893	671	474

Table 1. Total enrollments, completions, certificates and badges of the DigiCulture courses in the MOOC during the pilot period.

Gender	Enrollment Total	Completion Total
Female	1589	653
Male	669	224
Other / Unspecified	57	16

Table 2. Enrollments and completions divided by gender.

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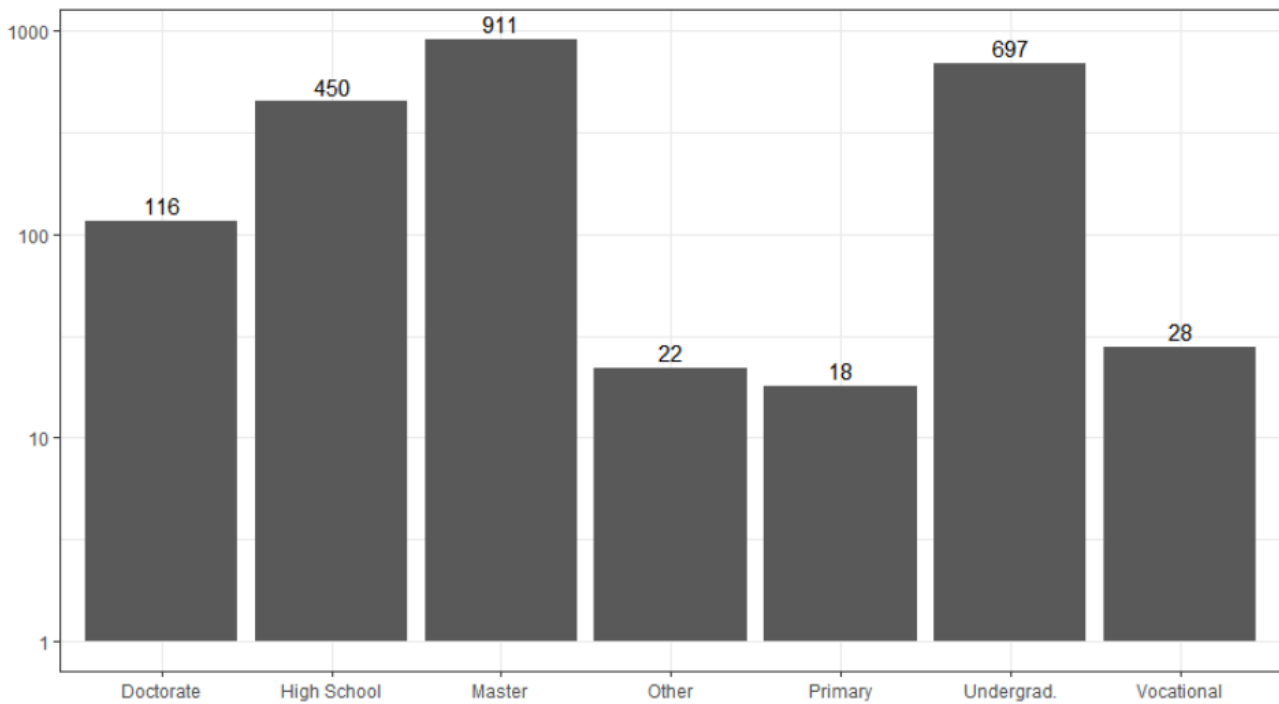
Enrollment Background

Figure 1. Bar chart showing the distribution of different enrollment backgrounds.

As seen in Figure 1, the enrollments mainly came from high school, undergraduate or master's degrees. The majority of learners who completed the course also came from these three categories, with none of these categories being especially higher than the other (250-298).
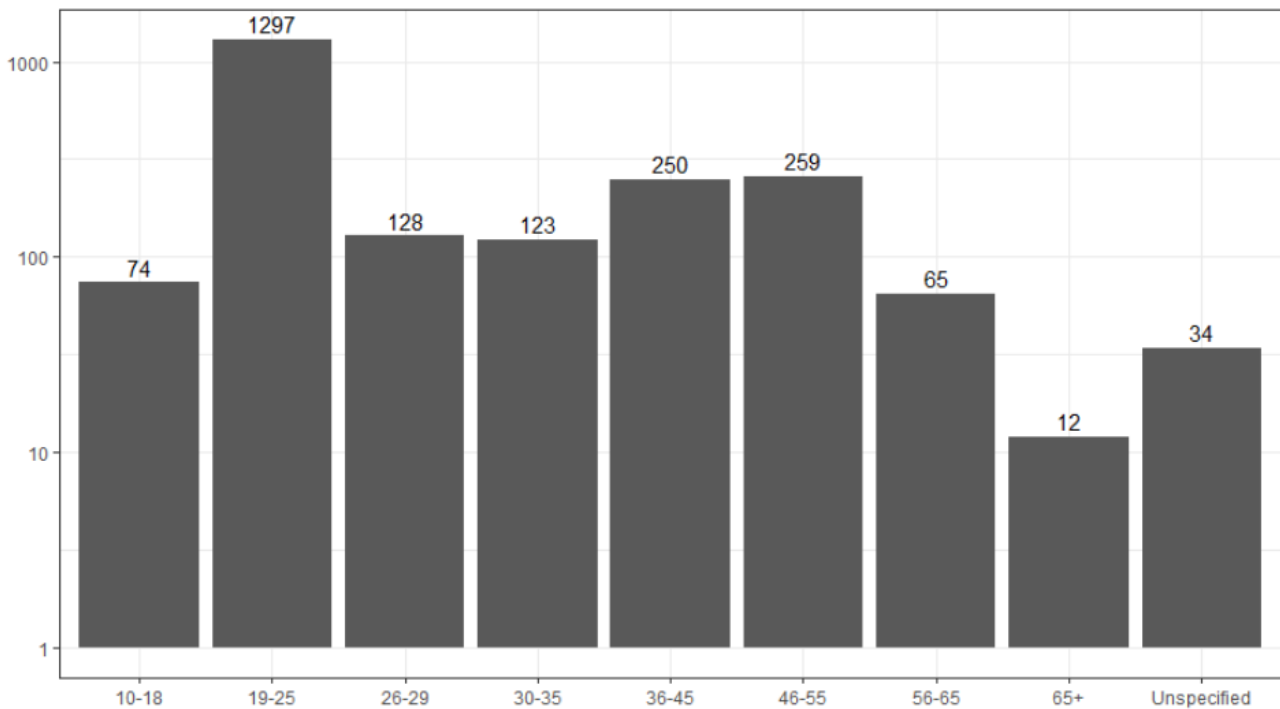
DIGITAL culture

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Figure 2. Bar chart showing the distribution of age among the enrollments.

Figure 2 shows that the vast majority of the enrollments came from learners who were in the age range of 19-25 years old and came from up to 29 different countries, including 13 countries from within EU (Romania, Denmark, Austria, Italy, Lithuania, Portugal, Ireland, Spain, Poland, Slovakia, Germany, Hungary and France).

Adult learners collected the majority of badges prior to July. The majority of learners collected on average 1-2 bages (M=1.41), with the maximum earned badges being 4. The majority of the badges were issued by the Digital Storytelling course, followed by Digital Content & Publishing and Digital Safety, Security and Ethics (See Popularity table). On average, the DigiCulture courses issued 28 badges (M=28.1). Courses were most popular in English, followed by Romanian and Italian. It took learners on average 7-8 days to complete a given course after registering (M=7.3).

1.	Digital Storytelling
2.	Digital Communications & Presentations
3.	Mobile Apps and Mobile User Experiences
4.	Digital Content & Publishing
5.	Digital Audiences, Digital Analytics

Table 3. Top 5 most popular courses in the DigiCulture MOOC.

The learners came from different backgrounds including cultural and creative industries, freelance artists (including visual arts, music and acting), students and teachers. The learners represented 106 different

organisations in a wide range of professions, listed in table 3. Some learners came from other industries that were not considered such as education, infant services, sports and logistics.

Area of study	Average
Museums, galleries and libraries	19%
Music, performing and visual arts	14%
Advertising and marketing	9%
Architecture	2%
Crafts	4%
Design (product, graphic and fashion design)	13%
Film, TV, video,radio and photography	14%
IT and computer services software and web/mobile development	39%
Publishing	4%
Tourism	6%
Other	39%

Table 3. How participants in the courses were distributed among different creative sectors in the creative industry.

Open badge publishing

Several learners have published the open badges and certificates on social media - mainly LinkedIn and on Twitter see Figure 3.
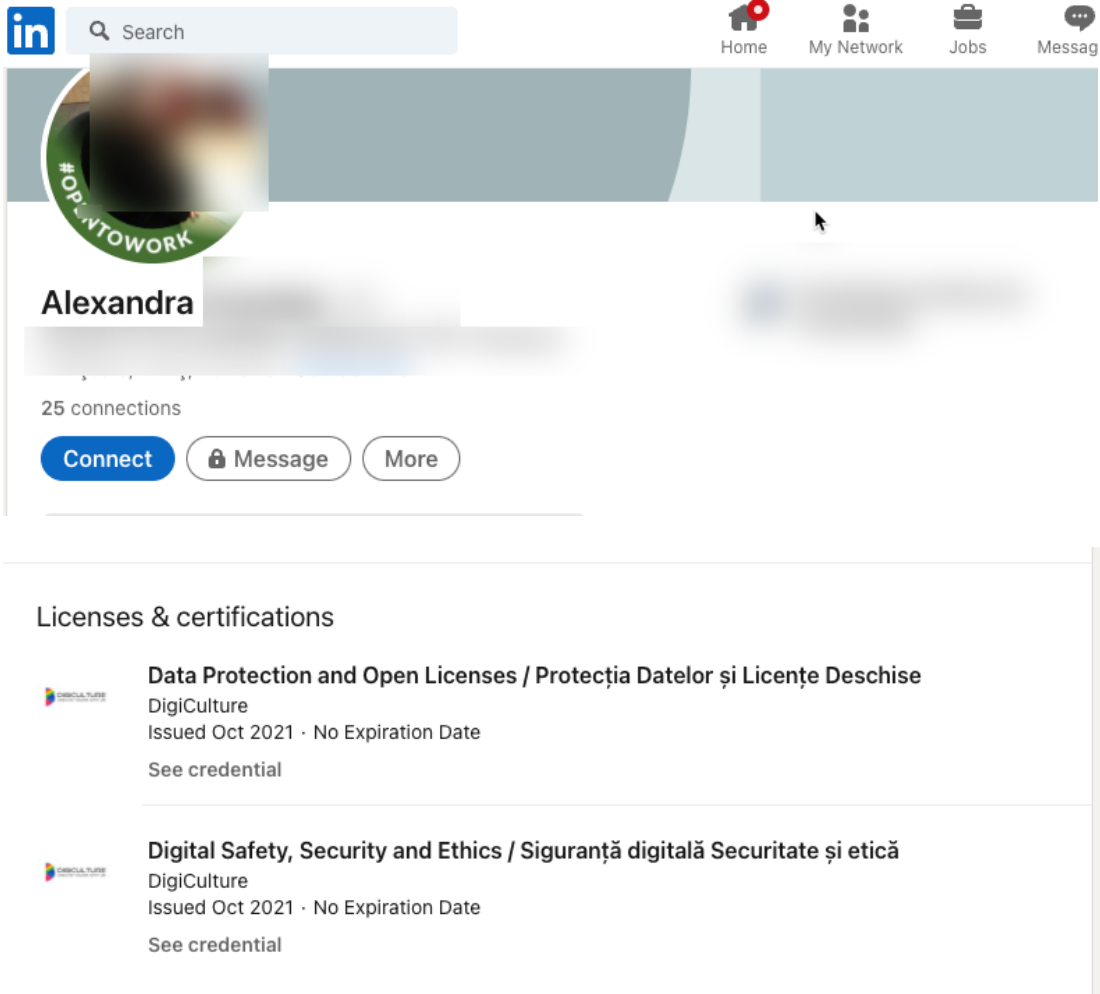
Figure 3. Open badges published on LinkedIn

Special badge awards

In addition to the badges provided through course completion, the DigiCulture project awarded special badges (Figure 3) as a token of appreciation to creators and contributors to the DigiCulture MOOC project. These participants helped adapt the DigiCulture courses to different languages or provided content that was adapted to the DigiCulture course activities. 34 Contributor badges were awarded to course contributors and 22 creator badges were awarded to course creators.

Figure 4. The special award DigiCulture badges.

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5   Discussion

The analysis of data coming from the DigiCulture MOOC, showed that there were a wide range of learners with many different backgrounds who enrolled into the course. The majority of learners were younger adults in the age range 19-25 years old, but also had a high spread in terms of age ranges.

 The analysis of the pilot group assessment showed that there were learners who did not complete the DigiCulture course and earn their badge. Observing such retention is not uncommon among MOOCs, as learners often face low completion rates compared to traditional institution-based learning where social contact and face-to-face interaction supports peers (Reich & Ruipérez-Valiente, 2019). We observed that some users completed the course, but did not acquire their badge. Badges had to be acquired by participants manually after course completion and therefore some users may have missed or become uncertain how to download them.

Naturally we were interested in how the badges were used after users had acquired them. Different methods to investigate badges were used. With Google Search we could search by uploading a DigiCulture badge to Google Images, and search for visually similar images. Google's Image search can also search text inside images. Moodle provides the first name and last name of students who have obtained badges. With this information we can investigate on a case-by-case basis, whether the students use their badges on social platforms such as Linked In or Facebook. 10-20 Students were looked up from the AR/VR course to test this method. Facebook's Search engine can search text inside images. By searching Fx "Digital Culture Basic Level Training", Facebook can search across all public images containing this text. However, the methods did not allow us to see how the badges were shared in private, which is often the case on these social networks.

Some sectors in the creative industry were less represented than others, such as Publishing, Crafts and Architecture. Future promotional and sustainability efforts from DigiCulture partners will aim to reach out to the less represented sectors and the concrete proposals can be found in the O6.4 Sustainability Plan.

6   Conclusions

The DigiCulture MOOC pilot ran for 6 months from March 2021 to September 2021 and had more than 2300 enrollments during its period. Users came from 13 different European countries and 17 countries outside Europe. The DigiCulture MOOC reached participants in a wide age range, with the majority of its participants being 19-25 years old.

7   References

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