

Digital university from student perspective: a step forward

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Keywords

Student experience, digital education, Higher Education, learning and teaching, on-line, survey

1. Summary

The paper presents a summary of the findings from the student digital experience insights survey carried out among students of Bachelor and Master studies at the University of Warsaw in the summer semester 2018 and 2019. It provides an overview of how students use technology at the university for their own learning purposes and how they perceive the university digital provision as well as the digital teaching and learning on their courses. The results of the survey help to understand how the students' expectations on digital education change in the course of gaining more experience, self-awareness and are more oriented towards their professional career.

The dataset is valuable in its potential to explore the digital experiences of students and in highlighting what exactly makes a difference to them. The findings of the survey are of use in identifying which areas of the digital education at the university should be developed as priority ones and deliver data upon which strategic decisions about digital improvements (including academic staff trainings and e-services) can be made. The findings obtained enable benchmarking for other HE institutions.

2. Background and method

University didactics is challenged by the accelerated process of digitalization in Higher Education and pervasive use of information technology for the support of teaching and learning is already a fact (Thoring, Rudolph, Vogl, 2017). Although there are studies focusing on the digitalization in the field of HE, they are often designed as a quantitative study and therefore allow only for a very general view of the subject (Dahlstrom, 2015). A broad study has been delivered by Jisc (Newman, Beetham, Knight, 2018) within a 3-year project and it is of use for other European HE institutions as their reference point. However, the relevant strategic planning for an individual institution requires an insight into own existing digital infrastructure and quality of services provided.

2.1 Method: the survey

A pilot paper questionnaire has been distributed among 61 students of the first and the second year of Bachelor degree (aged 18-27) during summer semester 2018. In a second step, the survey has been extended and the questionnaire was distributed in summer semester 2019 among 21 students of higher years of study, ie. the third year of Bachelor degree (aged 21-24) and of the first year of Master degree (aged 22-25).

The survey contained both closed (multiple choice) and the open questions referring to:

- individual digital learning habits,
- Technology Enhanced Learning in the courses they have taken, digital services & tools delivered by the university
- overall performance of the university in the Technology Enhanced Learning

The questions focused on the availability of the tools, their usefulness and frequency of use. Potential areas of improvement were asked to be indicated and all sorts of comments (open questions) were welcome within the survey.

2.2 Digital infrastructure

Digital infrastructure at the University of Warsaw includes the following e-services available for every student of the U. of Warsaw:

- Student management system (plans, marks), from 2019 available also as a mobile app, integrated with VLE university educational platform,
- University VLE ie. Moodle platform with e-courses for over 40 000 active users
- Student e-mail accounts within university domain under Gmail.

3. Key findings

3.1 Individual learning habits and digital experience

The students were requested to assess their own ICT skills scored from 1 (very poor) to 6 (excellent) and experiences with digital technologies (Fig.1). The results have shown the highest excellence has been achieved in using mobile applications rating them as at least very good ones for over 85% of students and in high activity in social media (80%). On the contrary, their experience with webinars and videoconferences is very low pointing to 75% declaring it as poor. The higher years students have even less experience with that, than a younger generation, what proves they have had no opportunity to practice such a form of learning.

The average skills and experience (fair to good) were noted for activities such as usage of MS Office, collaborative tools like Google drive docs and on-line courses, by 55% of students.

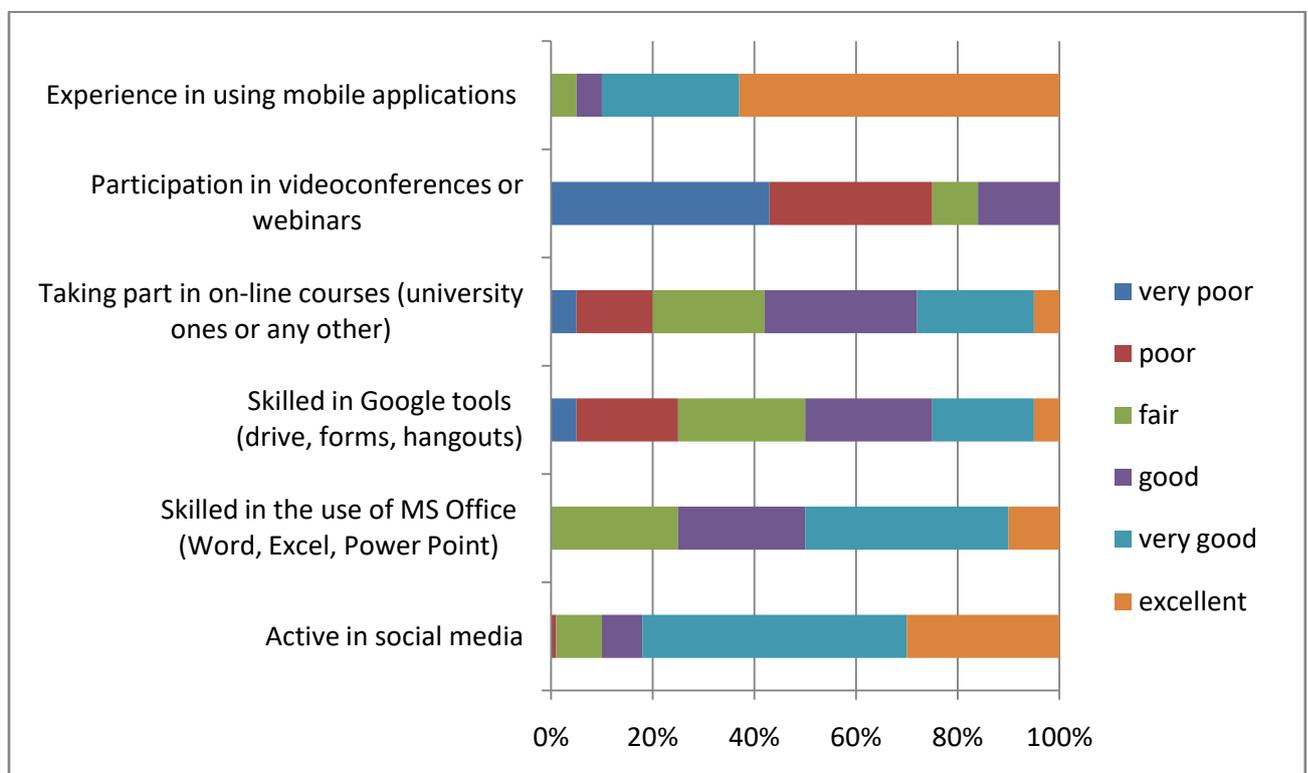


Fig. 1. How students assess their own ICT skills and experiences with digital technologies (from very poor to excellent).

Majority of them (60%) have already taken part in the university on-line courses offered at the university educational e-learning platform, but only 25% enrolled in MOOCs (at Coursera or edX) outside the university.

Students regularly used digital technologies in their own learning time (Fig. 2). More than half of them use digital devices on a regular basis (at least weekly) for managing their learning time, taking notes or making recording from the lectures or looking for the additional educational resources. Up to 65% students discuss informally their learning with other students via social media on a weekly basis. This number increase with the higher year of studies, what may be natural consequence of studying in a smaller group, selected for particular specialization, thus, in general, easier to communicate with.

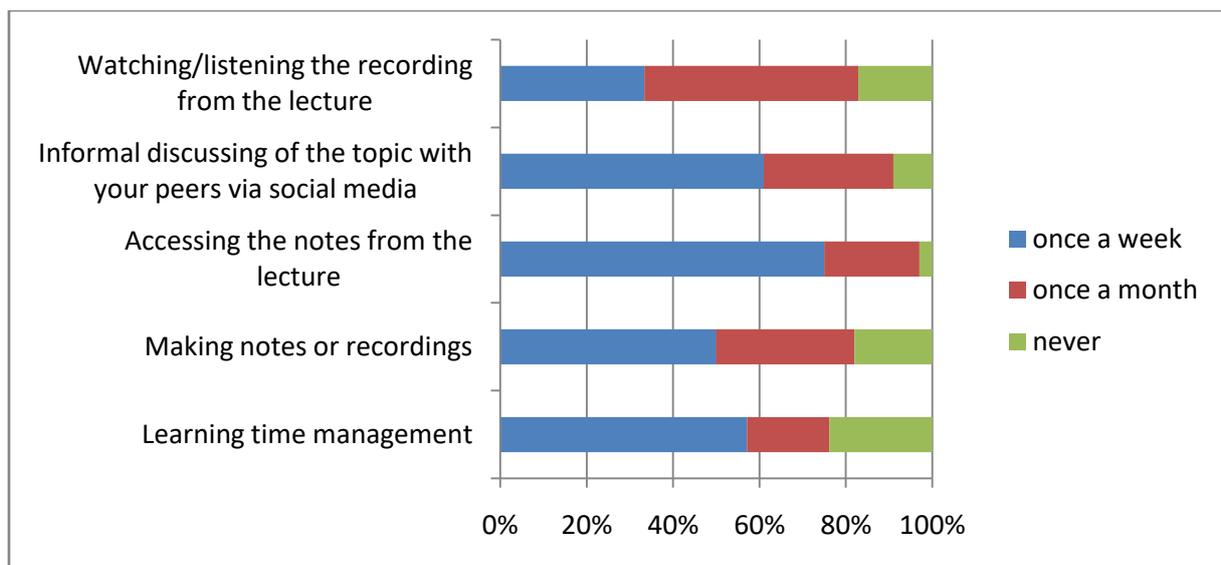


Fig. 2. How often students use digital technologies in their own learning time.

The digital habits, however, vary a lot between individuals and depend on their digital competences gained at the earlier stage of education. They are also based on psychology of individual differences, including both skills and motivations. A gap between those digital skills among students could be filled by individual learning paths and by incorporating more digital activities into the learning process.

The pandemic circumstances, however, have imposed the digital transformation in learning, and thus the above individual habits may have rapidly changed in order to adapt to the new situation and demands. Therefore, another survey is planned to check how this new circumstances influenced on learners.

3.2 Technology Enhanced Learning at the course

The use of VLE in the consistent way was highly rated by students. They have been eager to take part in more on-line courses. They rely on virtual access to learning and appreciate having lecture notes in advance and recordings they can revise from afterwards.

Nevertheless, at no more than 30% of in-class courses the technology enhanced learning approach is applied on a weekly basis, according to the replies of students. Surprisingly, at 30% of classes the digital technologies are reported not to be used at all. The specific activities include: accessing on-line resources, on-line collaboration within the group, using educational games, quizzes and simulations. The activities mentioned are exactly what students expected to explore more at their

face to face classes, stating (more than 50%), that they enhance their learning experience in this way, and thus they have a chance for better understanding of the lecture content.

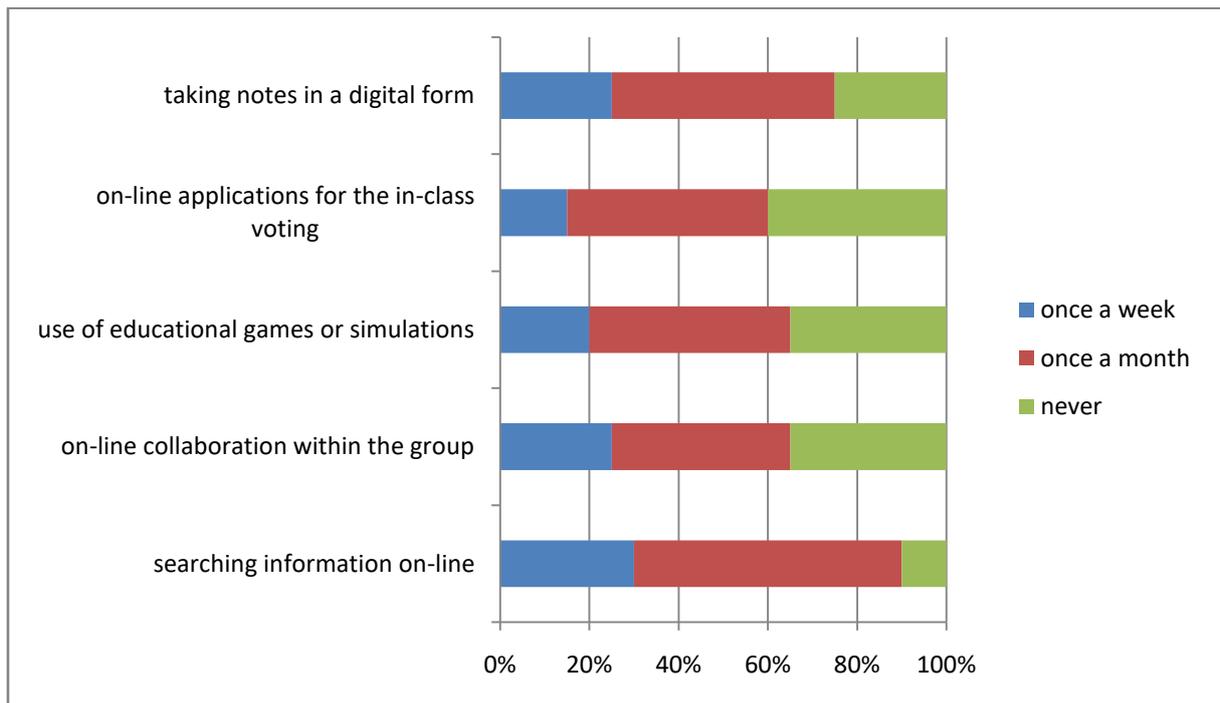


Fig.3 How often the following digital activities are undertaken during in-class courses.

On-line group collaboration was of particular importance for students of Master degree who explicitly admitted it is insufficient (80%).

In line with replies obtained in the survey, within open comments, students indicate the appropriate use of digital technologies and a proper balance between digital resources used and face to face contact with the lecturer and other colleagues are of high importance. For example, when asked on what activities they perceive as most useful at the course, they quite frequently state that another boring Power Point presentation “doesn’t make the deal” and more interactive approach is more than welcome. This, of course, imposes a challenge to be met by the academic staff. Consequently, the question arise how technologies provided by the university can improve teachers’ performance and their digital competences. Hence, another survey within this target group could reveal more background and key factors that influence the digital academic teaching.

3.3.Digital services & tools provided by the university

An overall performance of the university in the Technology Enhanced Learning was assessed in the survey. Among the priority needs a reliable wi-fi was pointed out. A mobile app facilitating access to the university student management system (schedule, marks etc.) was highly appreciated (in use from 2019).

Alike other European students (Thoring, Rudolph, Vogl, 2017), access to e-books and on-line literature was very welcome. A free MS Office license package for student was frequently pointed to be gladly seen within the university provision. Other professional software and program licenses (eg. AutoCad, ArcGIS, GeoStar) are expected to be provided free of charge for students. These, however, is to be revised at the particular faculties level.

Overall, digital technologies are expected to be used more both at the course and at the university level by 70% of all students, whereas 25% of them were happy with the amount of digital technology currently in use.

4. Conclusions

Student management system that allows accessing the university services on-line was undoubtedly the most appreciated functionality for students. Starting from 2019 it has also been available via user-friendly mobile app.

Virtual Learning Environment is highly appreciated by students and more on-line courses are welcome as well as better digital collaboration within the students' group. Masters' degree students value particularly the possibility to access the specialized software within a free license delivered by the university. The Bachelor degree students emphasize that such a need exists for even more basic software such as MS Office as well, that university does not provide.

In general, the university didactic offer should be more digital according to 70% of students. Of importance is however, that the issue is not just to use the digital technologies, but to use them in a wise and balanced manner with didactic awareness in mind, even if there is no one-size-fits-all solution.

It is worth to collect information on how moving to digital education, during the Covid-19 outbreak (from March to September 2020), influenced on the quality of teaching provision and learning results, when all the teaching and examination were run on-line. It will be also of value to compare the results obtained in this survey with the post-pandemic ones. Therefore, a similar survey is planned to be carried out among students and the academic staff in order to get to know what kind of digital practice they have found useful and what has failed.

Even though the survey was run for the University of Warsaw purposes, it can be scaled with other questionnaires. The outcomes of the survey deliver an overview of young people digital literacy skills, needs and expectations towards the digital education, and gives some indications on how the digital transformation should be shaped.

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Anna Pacholak, MSc, works in the Digital Competence Centre, University of Warsaw. She has been engaged in number of various educational projects involving e-learning and digital teaching. Her main scope of interest is focused on open access education, digital education, motivation aspects in learning process, new technologies for education, psychology of learning and positive psychology in education process.

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