

The Digitalization of Universities from Students' Perception

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ABSTRACT

The digitalization of higher learning institutions is progressing significantly. Though the use of digital technologies enhances the student's learning experience and offers new openings for administration, there are no clear cut uniformity in norms for the use of digital media in tutoring and student services.

As educational service providers, universities are dependent on students being capable to manage with the structures offered. Therefore it's essential to ascertain students attitudes of the technologies used. We asked students from three combined education courses about their comprehensions. We further asked the students what should be done and by whom. Our results show that students see structural changes being not only in themselves but also at the position of the university administration. Our investigation contributes to the factual discussion about the digitalization of advanced education by offering suggestions for development from a scholar view. The results are precious for lecturers and faculty administrators who want to advance the digitalization of services and learning.

Keywords: digitalization; organization; higher education; learning; Technology

1. Introduction

Digitalization is changing our day-to-day lives. As a result of digitalization, education and learning at universities are changing in revolutionary ways (Castro, 2019).

Amongst other effects, knowledge transfer and assessment are digitalized, as are student assist and administration processes. Digitalization aims to give enhanced chances for formative learning.

Digital structures change access to learning stuff, communication, and and cooperation between different interest groups. For numerous universities, digitalization is a trend to follow. Nonetheless, universities are having difficulties taking up, technologies (Carver, 2016; Reid, 2014). The varied stakeholder groups have so many different demands for a digitalized university. These varied stakeholder groups have so many different demands for a digitalized university. These obstacles hamper the digitalization of the universities (Reid, 2014).

This paper aiming to answer existing problems in the process of digitalization. We investigate at how students feel about the university's digitalization from their perspective.

We assess their perception by employing confines similar as trust, learning and organizational culture. Also, we ask students to suggest courses of action and liabilities. Our investigation question is two-folded, how do scholars perceive the current digitalization of universities, and what additional possibilities for the development do they suggest? We choose an atmosphere where students feel digitalisation and users. They represent a particular (critical) stakeholders group in the universities, especially as they grew up as digital natives (Crittenden, Biel, & Lovely, 2019). Furthermore, digitalization will affect their later professional lives (Friga, Bettis, & Sullivan, 2003). In the following section, we present the theoretical foundations of our work and explain the influence of digitalisation in advanced education, Thereafter; we also introduce the research,

approach, followed by a presentation of the results. We conclude the paper with short deductions and explain the implications and limitations of our work.

2. Digitalization of higher learning Institutions

Technologies in education motivate teachers, enrich learning environment and help the evaluation of learning objectives (Vogelsang, Droit, & Liere-Netheler, 2019). Further, digitalized processes accelerate service support. When technology merges faculty members with the administration, tutoring and student results get more transparent. Likewise, technology has the implicit to interweave the universities' capabilities of teaching and administration. Because universities operate in a more and more competitive atmosphere, they've to seek effective processes (Adler & Harzing, 2017). The use and spread of digital assets in higher learning institutions are genuinely varied. So far, research has frequently concentrated on the evaluation of learning settings. Studies concentrate on goods of the individual learning success of students (Janson, Söllner, Bitzer, & Leimeister, 2014) or measure the acceptance of systems (Tselios, Daskalakis, & Papadopoulou, 2011). Only a small branch of research deals with questions of organizational anchoring (Porter & Graham, 2016). Problems of organizational integration are frequently grounded on resistance to change within institutions (Al-Senaidi, Lin, & Poirot, 2009). In higher education, exploration on digitalization is directly linked to a particular tutoring scripts, a conception of the current results is only possible to a limited extent. There's still a lack of an approach that provides an instrument to address challenges and show paths.

3. Methodology and Sample

In August and September of 2022, we conducted a survey. We chose students from management courses as a sample. The undergraduates were asked to complete a paper-based survey. We also invited students

from previous terms of these courses, as well as the "Project Management" (Master in Management/Information Systems) course, to take part in an online survey. These courses were chosen because they include a significant digital component as well as an additional attendance component. They also included increasingly digitalized administrative activities such as course subscriptions, test registrations, and technology-assisted communication.

We got 97 completed questionnaires, with 58.5 percent of men and 41.5 percent of women. There was no mention of a third gender. A t-test with a significance rate of 0.92 is used to investigate the impact of gender. Gender has no effect on the students' perceptions, according to the test.

The questionnaire was developed using an established theory of digital transformation hurdles (Vogelsang, Liere-Netheler, Packmohr, & Hoppe, 2019) and modified to the higher education setting. We supplemented the survey questions with additional available research. Changing learning, changed services, cultural changes, the need for new resources, strategy, and trust were among the 16 statements included in the questionnaire.

We did not introduce the statements in the questionnaire to the important fields to avoid bias. We devised positive and negative questions as a means of not influencing students' attitudes through word choice when it comes to the digitalization of colleges. On a five-point Likert scale ranging from "I don't agree at all" (1) to "I strongly agree," the students recorded their self-reported metrics (5). We also asked the students to recommend first steps for overcoming these obstacles. The final questions were all open-ended. To find comprehension questions and assess the capacity to understand, a pilot test was conducted with a focus group of 12 respondents.

969

4. Results and Discussion

The study's findings are presented by illustrating the statements' means and standard deviations (std. dev.). The analysis of the statements about the current situation is shown in Table 1. The mean values for modified learning reveal that students do not experience

any disadvantages as a result of the new learning approaches. However, they do not stress a clear progressive continuity in the university's technologically developing instruction. The students recognise the value of digital assistance and underline the importance of new services. Nonetheless, they do not emphasise the digitalization of service procedures in general. The standard deviation for this statement is very high. Students in digitally altered courses notice a shift in learning culture and underline the need of being open to new teaching concepts. Many of them believe that the learning culture is deteriorating.

The students agree that as a result of the digitalization, new jobs have been created. Nonetheless, the mean value indicates that more people are still required in this profession. Although the majority of students believe the university is progressing in terms of digitalization, they do not believe it has a clear digital vision. Among the positively formulated questions, data control has the

lowest mean value. Its standard deviation, on the other hand, is the largest. The findings reveal a high level of uncertainty about what is occurring with the data. In conclusion, the kids are unaware of the increased openness. The remaining two trust assertions demonstrate that students' transparency has no bearing on their use of learning technologies. The trust in the university is the highest value of this analysis.

In conclusion, the students believe that technical support has improved, and they appreciate the benefits of a new learning culture. Our findings reveal that digitization is associated with modernism and reflecting learning environments. Digitalized teaching concepts are seen as innovative and open progressions. In addition, the respondents had a high level of confidence in the university. Digital service frameworks, on the other hand, can be improved. There is still a lack of clarity in the vision. In addition, the employees may be able to initiate the digitalization of services and teaching.

970

Table 1. Mean Values and Standard Deviation.

Characteristic	Statement	Mean	Std. Dev.
Changed Learning	My learning success is harmed by the course's new format.	1,06	1,057
	I don't see any advantages of the technical support provided by the digital learning platform in the course.	0,89	1,019
	My university continues to use existing teaching and service practises.	2,04	0,720
Changes Services	My university provides digital resources to assist me in my studies.	3,41	1,039
	Internal university processes appear to have been digitised, in my opinion.	2,91	1,066
Cultural Change	The learning culture at the university has not changed due to digitalization.	2,11	1,014
	The university is always learning and improving its digital transformation skills.	3,27	0,951
	There is an openness to new ideas in teaching at my university.	3,35	1,013
Resources	The university has created specific jobs/projects for the digitalization.	3,28	0,789
	I have the impression that the digital learning platform lacks	2,52	1,090

	sufficient resources (time, money, and IT personnel).		
Strategy	In terms of digitalisation, my university is making progress.	3,34	0,942
	The university's administration is supportive of the university's digital transition.	3,24	0,830
	In my university, we have a clear vision or DT strategy.	2,93	0,838
Trust	I have the impression that I control the data that is stored about me.	2,54	1,154
	I have faith in the university's ability to handle the data I generate while using the platform.	3,87	0,988
	The transparency of the data (to which the lecturer has access) does not affect my use of the digital learning.	3,65	1,018

After the analysis of the data, we will review the very first development-paths recommended by the students. Each of the offered solutions is tailored to a certain stakeholder group, including university management, administration, lectures, and students. The university administration is critical in developing a digitization strategy. Institutional support, innovation and change (Reid, 2014) are all critical. The administration should aggressively encourage digitalization-related projects and courses.

Students demand that the institution establish rules for the use of digital media in university teaching and that professors be encouraged to transform their teaching. Universities should grant cash to develop new opportunities for digital professionals as a form of assistance. Many students believe that the digitalization of services and teaching is a vital condition for the further and faster development of effective learning management systems at the administrative level. Interactivity, the inclusion of chat-based forums, the ability to access all material without requiring a constant internet connection, and compatibility with all end devices were all highlighted. Students also want for more computer rooms so that they can be free of their personal technical equipment.

It is critical to take advantage of all technology capabilities, not just the supply of online services. It is necessary to overcome the absence of institutional support (Porter & Graham, 2016). Students claim that lecturers are not currently maximising their potential.

To overcome these obstacles, colleges must establish service centres that assist lecturers in digitising courses and converting them to blended learning situations.

Learners and lecturers should have access to well-trained technical support workers. As a result, teachers are free to focus on the content rather than the medium. In the long run, a good exchange will result in well-trained employees with a clear focus on media competency and content development, increasing media richness at institutions.

According to the results present research, there is a higher inclination among lecturers to switch to digitalized courses and seminars. However, digitization necessitates a significant additional effort that may exceed the lecturers' capacity in terms of time and skill. Even if lecturers are prepared to explore increasingly digitalized modes of education, a lack of understanding and great ambiguity about how to properly integrate digital media into courses might contribute to their reluctance. As a result, students believe that resource bundling is required. Departmental or even university-wide digital structures should be linked.

According to the findings of the current study, teachers are more likely to transition to digitalized courses and seminars. Digitization, on the other hand, involves a major additional effort that may surpass the lecturers' time and expertise capabilities. Even if lecturers are willing to experiment with more digitalized modalities of education, a lack of

understanding and ambiguity about how to appropriately integrate digital media into courses may be a factor in their apprehension. As a result, students think resource bundling is necessary. Digital structures at the departmental or even university level should be linked. Storage facilities can be broken down with the help of the above-mentioned service places.

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