

Digital Turn in Higher Education: An Examination of Enablers and Inhibitors in the Turkish Context

Oğuzhan Bozoğlu^a

^a*Gebze Technical University, Turkey*

*Corresponding author (Oğuzhan Bozoğlu): Email: obozoglu@gtu.edu.tr

Address: Gebze Technical University, Gebze, Kocaeli, Turkey

Abstract

By qualitatively analyzing the case of a higher education unit and reflecting upon its experience of digitalization, the current study attempts to gain insights into how and to what extent digitalization takes place, and what factors facilitate/hinder digitalization efforts in the Turkish context. Data for the present study were collected through individual semi-structured interviews and focus groups. An inductive thematic analysis was employed to identify emerging themes within the data. The findings indicate that there have been both intraorganizational and top-down initiatives towards digitalization, though the latter seems to have failed in addressing intraorganizational needs and priorities. The findings also suggest that the factors that have contributed positively to digitalization are the instructors' personal interests and availability of many digital tools. However, negative student attitude towards digital tools, problems with online assessments, failure to initiate and maintain a strategic organizational approach towards digitalization and faculty's reluctance to step outside their comfort zone significantly hinder digitalization.

Keywords: digitalization, digital transformation, distance education, digital tools, higher education, organizational management

Introduction

Digitalization in education has gained an unprecedented popularity and seems to have been legitimized and institutionalized over the last decades. It is obvious that the outbreak of Covid-19 pandemic has also contributed substantially to the widespread adoption of digital education (D'Ambra et al., 2022; Teräs et al., 2020; Trout & Yildirim, 2022) through heavy reliance upon emergency distance education platforms and tools and accelerated the integration of digital technologies into educational settings. Some scholars refer to the digitalization process as digital disruption

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(Crittenden & Peterson, 2019; Skog et al., 2018), which is often associated with the notions of change and transformation (Brennan et al., 2018). Similarly, others employ the term ‘digital turn’ both “*as an analytical strategy to discuss the digitalization process affecting society, and as a description of the digitalization process itself*” (Kergel & Heidcamp, 2018, p. 15). It is evident that what is coined as digital disruption or digital turn has both theoretical and practical implications for educational institutions. Challenging the traditional and orthodox understanding of education, digitalization, through its many manifestations and diverse discourses, has brought about a paradigm shift in education. To explain, the emergence of digital technologies and their adoption by educational institutions challenges traditional education centered around the classroom. The rise of online education allows students to access educational resources and expands their educational opportunities. This paradigm shift, which is often referred as ‘digital turn’, digital transformation’ or ‘digital disruption’, in education also impacts the way educators approach teaching and learning, enabling them to incorporate a variety of tools into teaching. Another aspect of digitalization of education is the changing nature of assessment. Today, educators make more use of such digital tools as online assessments, AI-powered grading systems and simulations. While it is acknowledged that the overall digitalization process brings many opportunities and new prospects, it is also noteworthy to mention the inherent risks, challenges, and problems.

Higher education institutions and their experience of digitalization deserve particular scholarly interest. Given the prominent and pivotal role universities play in the knowledge economy, these institutions are expected not only to integrate digitalization into their practices but also critically analyze the social impacts of digital turn and react accordingly (Kergel & Heidcamp, 2018). Considering the fact that universities are also responsible for equipping their graduates with required skills for employment and fostering critical thinking, these institutions can be claimed to be acting as drivers of innovation in the digital age and experimenting with unorthodox means of teaching and learning. An overview of the relevant literature in Turkey makes it clear that the same global trends of digitalization are also gaining prevalence in the Turkish context. The higher education landscape is changing, and universities are under more pressure to adopt and successfully integrate digital technologies into their organizational structures and daily practices (Gümüšoğlu, 2017; Kır, 2020; Taşkıran, 2017).

By qualitatively analyzing the case of a higher education unit and reflecting upon its experience of digitalization over a five-year period (from 2017 to 2022), the current study attempts to gain insights into how and to what extent digitalization takes place and what factors facilitate/hinder digitalization the Turkish context. More specifically, the current study seeks to answer the following research questions:

- (1) What internal and/or external factors interplay with digitalization processes?
- (2) What are the enablers/inhibitors of digitalization in the higher education context?

Literature Review

Digital transformation in the higher education context encompasses overall digital processes that are intended to enable individuals to utilize digital technologies effectively. Digital transformation in the higher education context refers to organizational and technological shifts resulting from the advancements in digital technologies (Menendez et al., 2016). Accordingly, digital transformation requires higher education institutions to consider many organizational aspects while developing their digitalization strategies in line with their needs and capabilities. Many scholars acknowledge that digital transformation requires substantial work that is related to all components of higher education including processes, purposes, and infrastructure (Jakoet-Salie & Ramalobe, 2022).

External Dynamics of Digitalization

One significant challenge that universities face is that they need to consider not only internal stakeholders but also external ones while designing and implementing digitalization processes. Considering the complexity and rapid transformation of stakeholder expectations, higher education institutions should try to maintain the balance between their internal dynamics and external expectations (Füzi et al., 2022). Grover (2015) asserts that digital technologies are so pervasive that higher education institutions have to deploy and use these to survive. However, the author also questions whether digital technologies improve social interactions, cognitive ability and economic impact. In order to be able to successfully integrate new technologies into organizational activities, universities should be aware of their readiness for

digital transformation and identify elements that can support or hinder their strategic transformation processes (Hinings et al., 2018). Addressing universities' failure to achieve digital transformation, Bygstad et al., (2022) suggest the term *dual digitalization*, which stands for two different streams of digitalization: namely, educational solutions and digital subjects. While educational solutions refer to strategically conducted top-down initiatives, digital subjects are produced bottom-up and based on knowledge, pedagogy and autonomy. The authors claim that these separate conflicting and unintegrated processes lead to problems regarding their governance, discourse and technologies. Therefore, it is suggested that universities embrace a learning-centric approach and establish a shared learning space as well as integrating relevant elements and redefining roles. Similarly, Tømte et al. (2019) compared the digitalization processes in Denmark and Norway. The authors found that digitalization processes within higher education institutions followed two paths: one external, top-down process initiated and shaped by governmental bodies and one internal both in the form of top-down and bottom-up initiatives. This research shows that digitalization can happen differently in different settings and be influenced by different stakeholders.

Internal Dynamics of Digitalization

As for the intraorganizational aspects, there are several critical issues to be addressed in designing and implementing digitalization processes. To begin with, universities must consider students' digital readiness, digital literacy and willingness to adopt digital technologies. Student response to digitalization and digital contexts may critically affect teaching and learning processes. Recent research conducted by Reinhold et al. (2021) found that while students are willing to benefit from online courses, their attitude towards ICT and self-regulation skills are influential factors determining their learning experiences. Irvin and Berge (2006) indicate that anxiety and feelings of isolation are not uncommon in online classrooms. Another major issue to consider is that digital transformation requires organizations to have relevant human resources or digital talents with key digital competencies that will trigger, enable, facilitate and maintain digital transformation (Gilch & Sieweke, 2021). Within the higher education context, it means that universities must have academic and non-academic staff that are familiar with digital technologies and opportunities that can be utilized for teaching and research purposes. From (2017) highlights the significance of pedagogical digital competence, which relates to "knowledge, skills, attitudes and approaches in relation to digital technology, learning theory, subject, context, and the relationships between these" (p. 48), and indicates that those who have pedagogical digital competence can effectively and pedagogically incorporate ICT into the course content and enhance students' learning experience. Addressing the major challenges faculty face when implementing digital technologies is also critical to be able to enable a digitalization process in which new opportunities are utilized. Guri-Rozenblit (2009) presents the most demanding challenges as distributed teaching responsibilities (assuming new roles and working together in a team contrary to the sole role in traditional classroom environments), time consumption and lack of incentives, lack of technological literacy and support systems, burnout, and concerns about intellectual property rights. Johnson and Shaulskiy (2013) indicate that another challenge to be considered is digital distractions in the classroom such as cell phone use, social networking and other non-learning activities, and how to deal with these digital distractions.

The relevant literature review above clearly shows that (1) digitalization in the higher education context is quite comprehensive and requires consideration of many organizational aspects, and (2) higher education institutions' digitalization processes can be substantially influenced by internal and external factors. For example, Bekele (2021) states that a methodical consideration of factors can contribute to the success of digital integration. Therefore, the author suggests a comprehensive model of success in online learning in higher education which encompasses human factors, course factors, leadership factors, technology factors and pedagogic factors. An overview of the recent literature also makes it clear that new insights into digital transformation in Turkish higher education are needed. More specifically, a thorough understanding of changing roles of academics and their digital capabilities (Kır, 2020), organizational experiences and strategies regarding digital transformation (Taşkıran, 2017), and shifts in learner profiles is critical to digitalization efforts. Accordingly, the current study aims to critically examine the five-year-long digitalization experience of a higher education unit before, during and after Covid-19 and contribute to the existing literature by providing evidence from Turkey.

Methodology

Research Design

Given that the current research is intended to explore the digitalization process in a higher education unit and reflect upon the participants' experience with digitalization (before, during, and after Covid-19 pandemic), qualitative case study approach was considered the most appropriate. The reason why I adopted a qualitative approach was that it allowed me to gain deeper insights into the process through the instructors' account of their digitalization experience. Even though I also intended to make use of some quantitative evidence such as student grades, attendance reports and exam results and further support the research findings, I was not able to use them for personal data protection concerns. That is, my access to such data was not granted by the administration.

Context and Participants

The foreign languages department of a leading research-intensive higher education institution located in a competition-intensive part of Turkey was analyzed in the current study. There were several reasons why this particular department and the university was selected. First, the university has been long trying to attract top performing students and involved in a fierce competition to gain better positions in national and international rankings. Its striving for better quality and performance reflects upon teaching and research and acts as a driver for innovation and improvement. I have had the chance to observe how the university administration has raised its expectations from staff over the recent years to increase performance. Second, foreign languages departments and schools are often associated with enhanced technology use due to many educational applications and websites available. Additionally, as a result of the widespread use of books/materials published by leading publishers and their provision of relevant software, these institutions receive digital content and materials. Another reason is that digitalization initiatives in this higher education unit started before the outbreak of Covid-19. It gave me a unique opportunity to observe how digitalization took place when it was initiated or driven by the organization itself contrary to rapid and forced digital transformation during the Covid-19 pandemic. Since data collection lasted approximately for five years and covered post-covid period when a hybrid model for teaching was adopted, the case also provided me with the opportunity to explore the post-covid period.

When I first began collecting data, the total number of staff employed was 30 and the study group of the current research consisted of 12 instructors employed in the department. Only those key informants that could provide rich

Table 1
Information About the Participants

Pseudonym	Gender	Tenure (years)	Additional Responsibility	Education Level	Number of Interviews
Nilay	Female	20	Testing	Bachelor	2
Fatma	Female	6	Testing	Master's	1
Yusuf	Male	5	Administrative	Master's	3
Canan	Female	8	Student Affairs	Master's	3
Kenan	Male	10	-	Bachelor	2
Yamaç	Male	10	-	Bachelor	1
Defne	Female	10	Administrative	Bachelor	1
Ebru	Female	8	-	Bachelor	2
Bülent	Male	6	Material Office	Master's	3
Kerem	Male	12	-	Master's	3
Samet	Male	11	-	Master's	3
Ozan	Male	15	Student Affairs	Master's	1
Derya	Female	14	-	Bachelor	2
İlayda	Female	9	Material Office	Master's	3
Yasemin	Female	8	-	Bachelor	1
Erkan	Male	10	Administrative	Bachelor	2
Tuğçe	Female	10	-	Master's	3
Didem	Female	10	-	Master's	2
Hale	Female	14	Administrative	Master's	1
Miray	Female	5	-	PhD	1

information about the processes were included in the study. Therefore, I selected those who showed willingness to participate in the research and had some other key roles as well as teaching. The first study group included department coordinators, testing and assessment staff and others who were responsible for integration of digital technologies. I also included instructors whose main roles were mostly teaching to be able to reflect upon their in-class teaching experiences. Over the years, some of these individuals had to leave the institution as a result of changing jobs or retirement while new ones were hired due to the rapid massification of higher education and increasing number of students. Therefore, I replaced those who left with the newly employed ones. Overall, the number of the participants involved in the research is 20. Further information about the participants is presented in Table 1.

Data Collection

Data for the present study were collected through individual semi-structured interviews and focus groups. In total, I interviewed 20 instructors, 13 of whom were interviewed more than once from 2017 to 2022. In total, I organized 40 interviews. First, the interview questions were prepared with the guidance and feedback from two experts from the field. A pilot study was conducted with two instructors to reflect upon the appropriateness of the questions. Following that, the potential participants were determined and those who showed willingness to participate were involved in the study. However, due to the outbreak of the Covid-19 pandemic, which was completely unexpected at the time, some modifications were made to the interview questions. While keeping the main interview questions (since they were directly related to the general issues regarding digitalization), new drilling questions were asked to reflect upon their pandemic-specific experiences. Some interviews were held online during the pandemic. Digital voice recording was used when the participants granted permission. Data were transcribed verbatim, and the participants were assigned pseudonyms in order to preserve anonymity.

Data Analysis

I employed an inductive thematic analysis to identify emerging themes within the data. Data analysis started with subsequent readings of the transcripts so that the researcher could gain a holistic account of the data available. An open coding approach was employed, and based on the coding framework codes and categories were derived. Following that, the main themes were identified. In order to be able to ensure reliability and validity and avoid any bias, analysis results were checked by two colleagues not involved in the study. Additionally, emerging codes and categories with their transcribed interviews and researcher notes were shared with the participants.

Findings

Following the detailed analysis of the data, three themes were identified, and they were labelled as (1) drivers of digitalization, (2) enablers of digitalization, and (3) inhibitors of digitalization. Under each theme, several categories were also identified. In the first theme, I tried to address the first research question while the second and third themes deal with the second research question.

Table 2

Themes and Categories

Themes	Categories
Drivers of digitalization	Intraorganizational initiatives Top-down initiatives
Enablers of digitalization	Digital tools Personal Interest
Inhibitors of digitalization	Student approach Organizational problems Comfort zone

Drivers of Digitalization

The first theme ‘drivers of digitalization’ refers to how digitalization initiatives occurred. My analysis reveals that there are two different drivers of digitalization in this organization. It seems that there have been both intraorganizational and top-down initiatives towards digitalization. The first realistic and systematic steps towards the integration of digitalization came from the foreign languages department staff as a response to the needs having emerged in the process long before the outbreak of pandemic. The participants clearly indicated that there were inherent problems arising from the lack of a system to keep record of student grades and attendance. The overall system used by the university was not compatible with the foreign languages department’s needs. Therefore, the staff had to experiment with other external learning management systems (LMS), and according to some participant responses found a viable solution through the use of an LMS for the first time.

We were using Excel spreadsheets to keep track of attendance and student grades. Some of us were using files on which we wrote down the number of missing hours. There were many problems. Sometimes, the documents were lost. (Yusuf)

The university’s student information system was not designed to be used in our department. This was a big problem. When there was not a system, human error was common. (Ozan)

The LMS was a substantial change towards digitalization of organizational work. Now, we can configure almost everything. We also use it to communicate with students, deliver online exams, share files and run discussion session. (Defne)

During the same period, there was another major step towards digitalization. Instead of using CD players and paperback coursebooks, the department began to use classroom presentation software that was provided by the publisher of the coursebooks that students were required to purchase for their preparatory school education. The participant responses revealed that it substantially enhanced in-class experience by enabling instructors to present the course material more effectively and interact with the digital content. As the instructors had access to all course content including interactive student books, self-study books, additional exercises and videos, the software received positive comments from all the instructors. In addition to the use of LMS and classroom presentation tool, access to the internet all the time was also claimed to benefit teaching and learning experience.

When students have access to course content all the time, they seem more engaged. Before the classroom presentation tool, writing down the answers and playing audio files was quite difficult and a burden for all of us. (Yasemin)

I believe one significant contribution is that thanks to the software, visual learners have an advantage. Also, I can slow down the audio, show the transcripts when needed, and present extra materials easily. (Canan)

In an attempt to encourage students to engage in self-study and meet the expectations from the university administration for better student performance, an online practice module provided by the publisher company was also utilized in the same period. When students bought the original books, they were provided by a digital code through which students could access to extra online materials compatible with what they learnt in the class. Through a school account, the administration could set up online classes, assign content and monitor student progress. Though it first seemed a valuable opportunity to increase student engagement, the participant responses revealed that there were two major problems with the widespread use of this system. First, only those students who could afford the original books were granted access. Second, the grading system did not work properly, and a great deal of effort was required to calculate students’ final grades. Despite improvements in the online platform in the coming years, negative experiences and complaints by students led the department to give up using the module before the pandemic.

We expect the online module will benefit our students. One challenge here is to motivate students to engage in self-study. Now, we can submit content, monitor their progress and since it is graded, they will finally find the motivation to study at home. (Ebru)

Those who did not buy the original books are now at a disadvantage. Through our scholarship program, we tried to help some but apparently, many students did not want to pay much. (Kerem)

I was responsible for the grading part, and it did not work properly. For each class, I had to configure many settings, yet the grading did not work properly. Plus, the system is slow and not compatible with mobile devices. (Didem)

The LMS was also used extensively by the department for file sharing and communication. However, the LMS was the free version and the owner company decided to charge a certain sum of money for each student annually. This led the staff to find an alternative as it was financially impossible for students to pay for it. The participants that had administrative roles said that they immediately began to look for solutions before the beginning of the next academic years. First, they contacted the university administration to find a permanent solution with the integration of schoolwide academic software to cover the foreign languages department. When it was rejected, they went through all other free LMSs and ran comprehensive tests to check whether what was provided without a charge could meet the demands by the department. One LMS, which was intensively used until the schoolwide transition to online teaching during the pandemic, was found to be compatible. The new LMS, which according to the participants had some problems regarding marking student attendance, received positive feedback from all the instructors and solved many inherent issues. It even allowed the department to carry out online assessments with its extra features, which was said to be a substitute for the online self-study system for which students had to pay.

When I saw the message coming from the owner company, I was shocked. We wouldn't afford it or demand students to pay for it. (Defne)

We worked really hard to figure out how to integrate the new LMS into the system. It was unlearning and relearning everything in a very short time. Somehow, we managed to do it. (Samet)

The assessment feature is a great contribution. Now, we can provide our students with self-study material, monitor their progress and receive results immediately. And all that is free. (Bülent)

As well as these major ones, the staff have also experimented with many digital tools and websites available for use in language classes. From mobile applications to presentations tools, a wide range of tools have been used extensively. However, the participant responses clearly reveal that there has never been an orchestrated, strategic and organization-wide effort to make use of these digital tools. Instead, it has so far been dependent on individual efforts and preferences, which limits its use to specific classes.

I make use of many websites and applications. Students particularly enjoy mobile quizzes and gamification tools. (Didem)

The problem here is that without a community approach, the use of digital tools is at the instructors' discretion and limited to certain classes. We sometimes come together and share experiences, but it is rare. It is also difficult to produce content on my own as it is time consuming. (Canan)

When it comes to top-down digitalization initiatives, the participant responses made it very clear that the involvement of university management into digitalization initiatives came with the emergency distance education during the pandemic. When the university decided to cease all face-to-face teaching activities in March 2020, it was a shock to everyone according to the participants. Within a few weeks, the university administration informed all the academics about the distance education platform that would be used. From the participant responses, it was obvious that the immediate

transition to online education was a painful one as there were lack of experience and many concerns regarding its use in language classes and assessment. However, the participants also revealed that they learnt fast and adapted to the distance education much more easily and quickly than many other departments.

I do not want to remember those terrible days. In two weeks' time, we had to learn how to use the program. (Canan)

I guess before the distance education, the university was not involved in our digitalization, which is understandable as they do not work in our field. Distance education was the first attempt, but it was obligatory, not something strategically implemented. (Yamaç)

The emergent and unplanned transition to online education also led to major problems. According to the participants, the introduction of online education led to critical issues regarding the use of existing LMS, student attendance, examination and copyright issues. The new department head wanted the staff not to use the LMS and instead run all the operations through the online platform or other internal tools. For grading and attendance, each instructor was asked to keep their own records and submit them regularly to the coordinators. Therefore, the students couldn't access information regarding their attendance and grades. Use and sharing of digital content was also abandoned due to concerns over copyright issues. The staff was also asked to video record all their online classes and store them in their own computers or devices. According to the participant responses, the abandonment of the use of LMS was problematic and without a system that would replace it, it was not a reasonable decision.

I understand some of the concerns over using external systems. Before our transition to distance education, we had the freedom to use whatever tools we wanted. Distance education brought many issues regarding copyright, privacy and data protection. However, we could not convince the department head that these were common tools and platforms and there were not repercussions. (Derya)

Without a substitute for what we gave up, the whole experience was negative. The platform we used for distance education was a comprehensive one involving many features. However, it did not have all the necessary tools we needed. (Yamaç)

Online examination was another major issue. The participants repeatedly stated that online exams led the students to engage in the online classes less and less and encouraged them to cheat. Additionally, many exams in the forms of quizzes, presentations and speaking and writing exams were replaced by three major exams including two midterms and a final. Acknowledging that it was impossible for the staff to prevent cheating, the participants also stated their discontent with the form of the exams delivered. They particularly questioned the necessity of open-ended questions as it was apparent that the students would copy and paste content from the Internet or cheat from others.

If there is one thing that really bothers me, it is the online exams. We have never been able to prevent students from cheating. We already gave up many assessment types which were agreed upon after many staff meetings to help students learn better. (Nilay)

In the post pandemic period, the university opted for a hybrid model in which students came to the school for three days while they had online classes for two days. The participant responses revealed that they did not enjoy online sessions at all due to lack of attendance by the students. Not being able to encourage students to join online sessions and without sanctions to get students to participate, the staff was discouraged.

This academic year was the worst I had ever had. Students only attended classes in order not to fail due to absenteeism. We did everything to motivate them yet failed to encourage them. (Ebru)

One significant development in the post-pandemic period was the integration of the official student management system. The school administration finally provided a system for student registration, attendance and grading. With the

introduction of the new system and distance education platform, the gap caused by the lack of an LMS seems to have been filled. However, the participants clearly indicated that the attendance system was not functional as it wasn't in line with the foreign languages department's attendance system. The biggest criticism was that it took quite a while to take attendance. According to the participants, taking the attendance became a real burden when there were a lot of students not attending the online classes.

Taking attendance is a big problem. It is time-consuming and repetitive. However, it is nice to have such a tool again. It is definitely not an LMS but at least saved us from the burden of taking attendance and keeping record of student grades. (Derya)

A final point noteworthy to mention is that at the very beginning of the new academic year, the university administration informed all the academics that a new distance education system developed by the school itself would be used. From the participant responses, it was obvious that it led to a lot of anxiety and confusion among the staff. It was unexpected at the time and the new system was not ready and obviously not as useful as the existing one. However, after a few weeks, university administration gave up using the new system.

When I heard that, I was frustrated. I mean, what's the point of abandoning a fully functioning system? (Fatma)

Based on the findings regarding the internal drivers of digitalization, it seems that intraorganizational digitalization initiatives were prevalent before the outbreak of the pandemic and integrated by the staff itself to provide solutions to the existing problems. From the findings presented above, it can be claimed that digitalization initiatives undertaken by the staff bottom-up seem to have been more effective and in line with the objectives of the department. However, top-down digitalization initiatives seem to have ignored the realities and internal dynamics. During the pandemic, emergency transition to distance education may partially explain the incompatibility between the intraorganizational elements and top-down efforts. Yet, the following participant responses also reveal some key insights into the problematic gap and discrepancy. First, the department heads, assigned outside the department and with no expertise and background in language education, seem to have overlooked the internal dynamics. Second, the university administration was often unaware of the difference between other departments and foreign languages department.

When the staff decides to integrate digital tools, it is a response to a need or an attempt to enhance student learning. We are the experts in the field and through our external networks, we learn about the best practices and experiment with them. However, when it is top-down, they often overlook whether what is imposed can work. (Ozan)

It is a vicious cycle. With no expertise and little understanding, they offer solutions. Yet, without being aware of our needs and priorities, it doesn't work. Then, we give feedback and eventually things change, but at the cost of what? (İlayda)

Enablers of Digitalization

The second theme 'enablers of digitalization' refers to those factors that have interplayed with digitalization efforts positively. The participant responses clearly showed that the most influential factor that enhanced digitalization of teaching was the instructors' individual interests and efforts. It was obvious from the participant statements that when there were not sufficient and strategic organizational efforts towards digitalization, whether and to what extent digital tools were employed was based on each instructor's motivation to do so. While the LMS and online learning content was integrated to the curriculum before the pandemic, the use of other digital tools was at the instructors' discretion. While some instructors utilized many different tools available on the internet, others did not bother to do so. According to the participants, this led to substantial differences among different classes regarding student in-class experience.

What really makes it possible to utilize digital tools is the teachers' willingness to use them. (Ebru)

Organizational change requires a communal approach. Ours is just incidental use of digital tools. It may work but without a system or framework to base our efforts on, its use is limited. (Defne)

One interesting finding of the study was that while there were participant instructors who were in favor of technology-assisted teaching and even flipped classrooms where online assessments, self-regulated and active learning were prevalent, others were not aware of the existence of such things or seemed indifferent. Due to the pandemic and limited interaction among the staff, such ideas failed to be adopted by the others. The outsider department head seem to have maintained the status quo. According to the participant responses, lack of support and understanding from the administration and failed interaction among the staff prevented these individual efforts and experiences from evolving into common organizational practices. The participant responses also revealed that the staff had valuable qualifications, educational backgrounds and experience with digital tools, yet the top-down decision-making process hindered contributions from these instructors.

Education is evolving. The paradigm is shifting. We have instructors that have the expertise. We need to keep up with the changes and reshape our understanding. The content and how you present the content matters a lot. (Yasemin)

Before the pandemic, even the small talks that we had during intervals inspired new ideas and practices. During the distance education, we missed that opportunity. Additionally, the highly hierarchical structure is another problem. Everyone would like to contribute and acts with gold will, which is apparent. However, good intentions do not always result in positive experiences. (Erkan)

Another enabler of digitalization is that there are numerous digital tools available to be used in language classes. From language learning and vocabulary practice applications to online reading platforms and YouTube channels, there are hundreds of digital tools and contents waiting to be utilized. When the instructors had personal interest into digitalization and had a positive attitude towards digital tools to support student experience and learning, these digital tools indeed contributed positively to in-class teaching, according to the participants.

As language teachers, we are so lucky. Out there, there are hundreds of digital tools and content. All you need to do is to know where you will look and have the time and motivation to integrate them. (Hale)

However, generating content on different digital tools and platforms and encouraging students to download or create account on many different applications were claimed to be tiresome processes adding to the burden. The participants stated that acting as a team to generate content would be the solution as the distribution of tasks would ease the burden and help them produce more.

On the negative side, each application, website or tool requires learning and experimentation. You also need to guide the students to do so. Generating content also requires great time and effort if you would like to systematically utilize digital tools. As an individual, it is not something that you can achieve given that we have many classes to attend, papers to grade and paperwork to handle. (Hale)

Inhibitors of digitalization

Three main factors that inhibited digitalization efforts were identified. The first and most influential factor was the negative student approach towards digital contents provided. According to the participants, students often failed to engage effectively with digital content and showed reluctance. Regardless of on what platform digital contents were presented (distance education platform, coursebook online study module, LMS, other digital tools), the majority of students failed to use self-study materials. When online assignments were not graded, they tended to ignore them. According to one participant response, only five percent of the class did the exercises on a free reading comprehension platform though all the content was specifically designed in line with students' favorite topics and their areas of study. When the assignments were graded,

they tended to cheat. The participant responses revealed that it became a chronic problem to which no viable solution was offered.

I have been experimenting with digital tools for years and there is one challenge I have never overcome: students' lack of interest in digital content. Even the pandemic did not change their perception. (Didem)

Cheating and copying are really common. When we provide content and do not grade it, they ignore it. When we grade it, they would like to get all the points and cheat. It seems that they do not understand the fact that language learning is a process and leads to the acquisition of a qualification. They just see it as a course to pass, just like those in high school. (Hale)

I wanted my students to do reading practice and created content on an online digital reading platform. I chose texts relevant to their departments. The result? The majority of them did not do the activities even though they repeatedly stated that it was an excellent source. (Tuğçe)

During the pandemic, online assessment was claimed to be the worst. When the students were informed that there wouldn't be face-to-face exams, almost all gave up attending the classes. The participant instructors asserted that the overall distance education experience was spoilt due to students' lack of interest and motivation to attend classes or interact with the content presented.

I have clearly understood that our students are not ready for home exams. (Kerem)

The second inhibitor of digitalization, as implied above, seems to be the failure of the administration to organize intellectual capital and orchestrate efforts towards digitalization. According to the participants, failure to involve them into decision making processes led those in charge to act based on their own assumptions since there was no one in the university administration who had expertise or qualifications in language teaching. Some participants claimed that long and tiring weeks of instruction without evaluation meetings that would reveal reflections and feedback and reduced interaction during the distance and hybrid education also contributed negatively.

We often underestimate the fact that digitalization requires substantial change and organization work. It is similar to sustainability or quality work. In the absence of collaborative effort and organizational arrangement, it is just pretending. (Nilay)

We have a team consisting of instructors with great qualifications, educational background and valuable assets. Only when these people are coordinated, can we achieve our targets. (Yamaç)

The final factor that inhibited digitalization was that both the organization as a whole and individual instructors were anxious to be involved in a change process in which conventional and orthodox understanding of teaching would be replaced by a technology assisted and digitalized version. At the organizational level, the hierarchical structure which heavily relies on top-down decision making seems to be hindering substantial change. From an individual standpoint, the participant responses revealed that some instructors had concerns over such arrangements as flipped classrooms or partial distance education. That being said, the pandemic seems to have changed the instructors' attitude slightly in that they seem more optimistic towards such arrangements though they specifically stated that they were not ready to undertake such a large-scale change.

I have concerns over abandoning our well-established routines and initiating a major change. I agree that flipped classroom and integration of active learning can solve many issues and bring new opportunities. However, I believe that neither our team nor our students are ready for this. (Ozan)

Before the pandemic, distance education was not on the agenda. Now, we are doing it and hybrid models are open to negotiation. It seems that it changed our perspectives. Of course, we are still not ready and anxious for such a large-scale change, but we are more optimistic. (Canan)

Discussion

Reflecting upon the five-year digitalization experience of the participants, in the current study I focused on two major issues regarding digitalization in a higher education unit in Turkey. The findings indicate that digitalization initiated internally by the staff is more relevant to the needs and expectations while top-down digitalization is coercive, often limited to the integration of digital tools for administrative issues and distance education during the Covid-19 pandemic, and fails to align with internal dynamics. The incompatibility between these two streams of digitalization seems to result in negative outcomes. Therefore, as indicated by Bygstad et al. (2022) and Tømte et al. (2019), a more integrated approach is needed. Encouraging the staff to participate in decision making processes, making use of intellectual capacity, and fostering collaboration among staff can help higher education institutions make informed choices. It is obvious that digitalization has become pervasive in the higher education setting, and higher education institutions attempt to conform to the institutional environment and what is legitimized. However, not being able to address the intraorganizational aspects may prevent them from effectively managing digital transformation and lead to ceremonial conformity. Given that the success of digitalization efforts also depends on human factors, leadership factors and course factors (Bekele, 2021), bottom-up strategies that will encourage staff to participate in digitalization efforts may work better.

Regarding the enablers and inhibitors of digitalization, the findings clearly show that availability of a wide range of digital tools for use in language classes and willingness to integrate them into teaching positively influence digitalization processes while it is evident from the analysis that students' limited engagement with digital content, tendency to cheat in online assessments, lack of strategic and comprehensive organizational arrangement to enhance collaborative work towards digitalization, and the staff's lack of motivation to step outside the comfort zone are the main inhibitors. On the barriers to adoption of digital technologies, Arbaugh (2000) claims that belief and attitudes towards usefulness and ease of use are influential. Crittenden et al. (2019) suggest that student involvement can be enhanced through the integration of technologically based pedagogical tools and digital subject matters. Koh and Kan (2021) suggest that student-centered digital learning experiences can be fostered through infrastructural improvements and faculty preparation. As well as behavioral, cognitive and emotional components of engagement (Fredrick et al., 2004), socio-cultural factors should be taken into consideration and perhaps a holistic engagement that refers to all of the above must be considered (Tai et al., 2019). In line with the previous research, it can be suggested that student engagement may be the primary determinant of success of digitalization initiatives and a holistic approach that encompasses all aspects of student engagement should be adopted. For example, faculty can conduct surveys and discussions with students in order to reveal their digital competencies, preparedness and expectations regarding digital tools, and identify issues that negatively interact with student experience. As digital transformation in higher education is often referred as a substantial process, a holistic and comprehensive organizational approach that encompasses issues regarding educators, students and the system is highly needed for the success of the process.

Online education brings many learning opportunities and grants access to those at a disadvantage (Duria & Ibrahim, 2020). However, credibility might be undermined if prospective employers question the reliability of diplomas and certificates due to academic dishonesty in online assessment (Chuang et al., 2017). Considering online assessment, the current study clearly shows that students' tendency to cheat and copy content from other sources is a major problem. It seems that the instructors' objectives to help students engage in self-study is not in line with students' understanding of online assessment. Khan and Khan (2019) suggest that students need to be convinced of the appropriateness of the transition to online assessment. The authors also state that a gradual transition reinforced by effective feedback, individualized interaction and technological training for both students and faculty can increase student acceptance. Contrary to summative assessment, formative assessment is often seen valuable and aims to enhance student learning by providing feedback and suggestions (Einig, 2013). In the current research, it was found that students had limited interaction with the digital content regardless of its being graded or not. One explanation for such an attitude can be that the content provided may not have attracted students and when it was designed as formative assessment, feedback might not have been provided properly to encourage deep learning. In that regard, a comprehensive analysis of the reasons that lead to limited engagement and

academic dishonesty in online assessment must be carried out to be able to address emerging issues and act accordingly. Additionally, culture may be playing a role in students' attitude towards online assessment. Therefore, further research focused on student attitude towards online assessment in different cultures can also contribute to the relevant literature.

Another significant barrier to digitalization in the higher education context was the lack of a strategic and comprehensive organizational initiative in the current study. It seems that faculty's personal interest and motivation to integrate digital tools plays a positive role yet fails to achieve digital transformation outlined by Kopp et al. (2019). Through establishing digitalization units, organizing in-service trainings, workshops and faculty meetings and distributing tasks among the staff, a common understanding may be developed, and peer learning can be encouraged. Similarly, the reluctance shown by the staff to experiment with digitalization and use of various digital education alternatives can also be reduced through increased interaction among the staff.

Conclusion

Given that the higher education landscape has been witnessing a paradigm shift in which our traditional understanding of teaching and learning is replaced by digital alternatives, it is critical to acknowledge that digital transformation is a substantial change management process. Therefore, a thorough understanding of both internal and external dimensions of this process can help higher education institutions better integrate digital technologies into their teaching and learning routines. Decision makers' awareness of the inhibitors and enablers of successful digital transformation can help them address their strengths and weaknesses in their organizations and guide them to design learning environments accordingly. The current research clearly indicates that what is referred as digital transformation or digital turn in higher education requires a comprehensive and strategic organizational approach. Without such an approach, individual efforts towards digitalization seem to fail to produce intended outcomes.

Digital transformation requires substantial organizational change and a leadership perspective in line with such a large-scale change. Though it is a relatively new leadership paradigm, digital leadership may help organizations better manage their digitalization journey. Digital leadership is often associated with transformational leadership and change management while the proposed definitions also include a digital aspect that encompasses leaders' digital literacy, knowledge, skills and competencies (Jäckli & Meier, 2020; Kane et al., 2019). More specifically, digital leaders are the ones that can predict the need for digitalization, set a clear vision and communicate it across the organization and act accordingly to address these needs and guide and direct organization members to attain digitalization goals. In that sense, digital leadership skills encompass digital literacy and knowledge, agility, network building, effective change management, agility, flexibility, effective communication and proactiveness (Cortellazzo et al., 2019; Promsri, 2019; Sheninger, 2019). Building and fostering a digital leadership perspective can contribute positively to organization-wide digital transformation. The current research clearly indicates that without strategic and orchestrated efforts, individual desires and initiatives for digitalization do not evolve into something bigger. Digital leaders can foresee new tendencies and developments, build networks, initiate organizational digital transformation through a strategic organizational vision and channeling human capital and resources strategically.

Based on the implications and findings of the current research, future research can be carried out to explore the factors that interplay with digitalization in the higher education. In the current research, I have attempted to explore the digitalization experience through the faculty's perception. Studies that are intended to explore students' account of digitalization would contribute a lot to our understanding of their experiences and reasons for lack of engagement and address the research gap.

References

- Arbaugh, J. B. (2000). How classroom environment and student engagement affect learning in Internet-based MBA courses. *Business Communication Quarterly*, 63(4), 9–26.
- Bekele, T. A. (2021). COVID-19 and prospect of online learning in higher education in Africa. *Journal of Comparative & International Higher Education*, 13(5), 243–253. <https://doi.org/10.32674/jcihe.v13i5.4060>
- Brennan, L., Lu, V. N., & von der Heidt, T. (2018). Transforming marketing education: Historical, contemporary and future perspectives. *Australasian Marketing Journal*, 26(2), 65–69. <https://doi.org/10.1016/j.ausmj.2018.05.011>

- Bygstad, B., Øvrelid, E., Ludvigsen, S., & Dæhlen, M. (2022). From dual digitalization to digital learning space: Exploring the digital transformation of higher education. *Computers & Education, 182*, 1–11. <https://doi.org/10.1016/j.compedu.2022.104463>
- Chuang, C. Y., Craig, S. D., & Femiani, J. (2017). Detecting probable cheating during online assessments based on time delay and head pose. *Higher Education Research & Development, 36*(6), 1123–1137. <https://doi.org/10.1080/07294360.2017.1303456>
- Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. *Frontiers in psychology, 10*, 1–21. <https://doi.org/10.3389/fpsyg.2019.01938>
- Crittenden, V., & Peterson, R. A. (2019). Digital disruption: The transdisciplinary future of marketing education. *Journal of Marketing Education, 41*(1), 3–4. <https://doi.org/10.1177/0273475319825534>
- Crittenden, W. F., Biel, I. K., & Lovely, W. A. (2019). Embracing digitalization: Student learning and new technologies. *Journal of Marketing Education, 41*(1), 5–14. <https://doi.org/10.1177/0273475318820895>
- D'Ambra, J., Akter, S., & Mariani, M. (2022). Digital transformation of higher education in Australia: Understanding affordance dynamics in e-textbook engagement and use. *Journal of Business Research, 149*, 283–295. <https://doi.org/10.1016/j.jbusres.2022.05.048>
- Duri, H., & Ibrahim, D. (2020). Online Higher Education: Female Scholars in the Making. *Journal of Comparative & International Higher Education, 12*(Winter), 181–198. <https://doi.org/10.32674/jcihe.v12iWinter.1949>
- Einig, S. (2013). Supporting students' learning: The use of formative online assessments. *Accounting Education, 22*(5), 425–444. <https://doi.org/10.1080/09639284.2013.803868>
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59–109.
- From, J. (2017). Pedagogical digital competence—between values, knowledge and skills. *Higher Education Studies, 7*(2), 43–50. <http://doi.org/10.5539/hes.v7n2p43>
- Füzi, B., Géring, Z., & Szendrei-Pál, E. (2022). Changing expectations related to digitalization and socialization in higher education. Horizon scanning of pre-and post-COVID-19 discourses. *Educational Review, 74*(3), 484–516. <https://doi.org/10.1080/00131911.2021.2023101>
- Gilch, P. M., & Sieweke, J. (2021). Recruiting digital talent: The strategic role of recruitment in organizations' digital transformation. *German Journal of Human Resource Management, 35*(1), 53–82. <https://doi.org/10.1177/2397002220952734>
- Grover, V. (2015). Are we losing out with digitization? *Journal of Information Technology Case and Application Research, 17*(1), 3–7. <https://doi.org/10.1080/15228053.2015.1014746>
- Guri-Rozenblit, S. (2009). *Digital technologies in higher education: Sweeping expectations and actual effects*. Nova Science Publishers.
- Gümüsoğlu, E. K. (2017). Yükseköğretimde dijital dönüşüm. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi, 3*(4), 30–42.
- Hinings, B., Gegenhuber, T., & Greenwood, R. (2018). Digital innovation and transformation: An institutional perspective. *Information and Organization, 28*(1), 52–61. <https://doi.org/10.1016/j.infoandorg.2018.02.004>
- Irwin, C., & Berge, Z. (2006). Socialization in the online classroom. *E-Journal of Instructional Science and Technology, 9*(1), 1–7.
- Jäckli, U., & Meier, C. (2020). Leadership in the digital age: its dimensions and actual state in Swiss companies. *International Journal of Management and Enterprise Development, 19*(4), 293–312. <https://doi.org/10.1504/IJMED.2020.110815>
- Jakoet-Salie, A., & Ramalobe, K. (2022). The digitalization of learning and teaching practices in higher education institutions during the Covid-19 pandemic. *Teaching Public Administration, 0*(0), 1–13. <https://doi.org/10.1177/01447394221092275>
- Johnson, B. A., & Shaulskiy, S. L. (2013). Understanding digital distractions to improve teaching learning. *Journal of Comparative & International Higher Education, 5*(Spring), 1–4.
- Kane, G. C., Phillips, A. N., Copulsky, J., & Andrus, G. (2019). How digital leadership is (n't) different. *MIT Sloan Management Review, 60*(3), 34–39.
- Kergel, D., & Heidkamp, B. (2018). The digital turn in higher education towards a remix culture and collaborative authorship. In D. Kergel, B. Heidkamp, P.K. Tellús, T. Rachwal, & S. Nowakowski (Eds.), *The digital turn in higher education* (pp. 15–22). Springer.
- Khan, S., & Khan, R. A. (2019). Online assessments: Exploring perspectives of university students. *Education and Information Technologies, 24*(1), 661–677. <https://doi.org/10.1007/s10639-018-9797-0>
- Kır, Ş. (2020). Dijital dönüşüm sürecinde yükseköğretim kurumları ve öğretim elemanlarının gelişen rolleri. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi, 6*(3), 143–163.

- Koh, J. H. L., & Kan, R. Y. P. (2021). Students' use of learning management systems and desired e-learning experiences: Are they ready for next generation digital learning environments? *Higher Education Research & Development*, 40(5), 995–1010. <https://doi.org/10.1080/07294360.2020.1799949>
- Kopp, M., Gröblinger, O., & Adams, S. (2019). Five common assumptions that prevent digital transformation at higher education institutions. *Inted2019 Proceedings*, 1448–1457. DOI: [10.21125/inted.2019.0445](https://doi.org/10.21125/inted.2019.0445)
- Menendez, F. A., Maz-Machado, A., & Lopez-Esteban, C. (2016). University strategy and digital transformation in higher education institutions. A documentary analysis. *International Journal of Advanced Research*, 4(10), 2284–2296.
- Promsri, C. (2019). The developing model of digital leadership for a successful digital transformation. *GPH-International Journal of Business Management (IJBM)*, 2(08), 1–8.
- Reinhold, F., Schons, C., Scheuerer, S., Gritzmann, P., Richter-Gebert, J., & Reiss, K. (2021). Students' coping with the self-regulatory demand of crisis-driven digitalization in university mathematics instruction: do motivational and emotional orientations make a difference?. *Computers in Human Behavior*, 120, 1–10. <https://doi.org/10.1016/j.chb.2021.106732>
- Sheninger, E. (2019). *Digital leadership: Changing paradigms for changing times*. Corwin Press.
- Skog, D. A., Wimelius, H., & Sandberg, J. (2018). Digital disruption. *Business & Information Systems Engineering*, 60(5), 431–437. <https://doi.org/10.1007/s12599-018-0550-4>
- Tai, J. H. M., Bellingham, R., Lang, J., & Dawson, P. (2019). Student perspectives of engagement in learning in contemporary and digital contexts. *Higher Education Research & Development*, 38(5), 1075–1089. <https://doi.org/10.1080/07294360.2019.1598338>
- Taşkıran, A. (2017). Dijital çağda yükseköğretim. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 3(1), 96–109.
- Teräs, M., Suoranta, J., Teräs, H., & Curcher, M. (2020). Post-Covid-19 education and education technology 'solutionism': a seller's market. *Post-digital Science and Education*, 2(3), 863–878. <https://doi.org/10.1007/s42438-020-00164-x>
- Tømte, C. E., Fossland, T., Aamodt, P. O., & Degn, L. (2019). Digitalisation in higher education: mapping institutional approaches for teaching and learning. *Quality in Higher Education*, 25(1), 98–114. <https://doi.org/10.1080/13538322.2019.1603611>
- Trout, I. Y., & Yildirim, F. (2022). Teaching experiences of faculty members in Turkey during the Covid-19 pandemic: A Photovoice study. *Journal of Comparative & International Higher Education*, 14(3a), 10–32. <https://doi.org/10.32674/jcihe.v14i3a.4144>

OĞUZHAN BOZOĞLU, Dr, is an academic at Gebze Technical University, Kocaeli, Turkey. His research interests include higher education quality, change management, digitalization and organizational identity. For more information/questions please contact obozoglu@gtu.edu.tr