Higher Education Institutions Towards Digital Transformation—The WUT Case

Gabriela Grosseck, Laura Malița, and Mădălin Bunoiu

1 Introduction

We are now experiencing the Fourth Industrial Revolution, characterized by the blurring of distinctions between technologies, physical, digital and biological spheres. Digital technologies are embedded in our everyday professional and personal lives (Schwab 2016).

How prepared are universities to embrace this industrial revolution? How prepared are educational leaders to harness the full potential of Industry 4.0 to the benefit of higher education's customers (students, faculty, staff, alumni, etc.), communities, and the society in general? Not really prepared.

Traditionally, universities are places where innovation is planned, tested and implemented; therefore, a continuously interdependent relation between universities and technologies should be envisaged. If they want to be successful, higher education institutions must combine technology with strategy in all areas. Recent studies (Wilms et al. 2017; Bond et al. 2018; Seres et al. 2018; Curaj et al. 2018) show that universities should provide learners with the skills and knowledge they need for a very different future. Moreover, as Rampelt et al. (2019) highlight, it is necessary to provide “a clear understanding on how digital technologies can enrich the student experience in the European Higher Education Area”. The key element that will enable this is *digital transformation*.

What does digital transformation mean? As Clark (2018) indicates, digital transformation is a series of shifts that enable the transformation of “an organization's

G. Grosseck (✉) · L. Malița · M. Bunoiu
West University of Timisoara, Timisoara, Romania
e-mail: gabriela.grosseck@e-uvt.ro

L. Malița
e-mail: laura.malita@e-uvt.ro

M. Bunoiu
e-mail: madalin.bunoiu@e-uvt.ro

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core business to better meet customer needs by leveraging technology and data”. Beyond these things, digital transformation also requires changing an organizational culture, embracing new approaches, and a permanent evolution towards new and not yet well-defined practices. Thus, it is not just about disruption or technology it is about understanding that “technology and digitalisation are becoming a basic necessity for the society” (Curaj et al. 2018) and that they presuppose a significant change in terms of people’s skills and jobs, the type of work they do, aiming to significantly impact all aspects of human life.

There is no consensus regarding a common definition or a commonly agreed model of *digital transformation*. This is partly the “consequence of the term in itself” (Mirea 2018), due to its use in almost any context, often superficially and without consistency. However, Ismail et al. (2017) indicate that digital transformation determines the rethinking of the role and impact of digital technologies from different perspectives: an individual, an institution or organization, a network, an industry or an entire ecosystem, society or economy as well as the digital era. Furthermore, there is no clear recipe for adopting and implementing such a strategy (Andrea et al. 2018).

Probably the most objective and accurate definition is given by Rampelt et al. (2019). As they see it, *digital transformation* is a “transformative process that substantially influences all activities of higher education institutions. It permeates all processes, places, formats and objectives of teaching, learning, researching and working in higher education. This digital transformation includes the development of new infrastructures and the increasing use of digital media and technologies for teaching and learning, research, support services, administration and communication, but also the need of students and staff to develop new (digital) skills for their current and future workplaces”. Therefore, digital transformation is a complex and continuous transition where numerous education stakeholders—learners, teachers, the administrative staff (including the IT department), as well as the broader community—must work together closely.

In order to meet the demands of the future, universities must evolve and be driven by competition (Pucciarelli and Kaplan 2016), profit (McCowan 2017; Sperling 2017), customer experience and agility (Zervina and Stukalina 2019), and a strong focus on students (Curaj et al. 2018, Orr et al. 2019). To achieve these imperatives, tomorrow’s higher education institutions will need to adapt and embrace technology (Crittenden et al. 2019), action-based models and life-long learning (Christensen and Eyring 2011). In many ways, students have digital skills, starting from online shopping using a smartphone and going as far as remotely adjusting the temperature in their homes. As a result, they expect the universities where they are enrolled to also widely adopt new digital technologies like virtual and augmented reality (AR), artificial intelligence (AI), the Internet of Things (IoT), etc. There are many ways to apply a digital transformation: recruiting students digitally (by using social media), enrolling and registering them digitally (i.e. via their mobile phones), providing a variety of online services and learning options (including blended and flipped courses), monitoring their learning progress as well as partnering with the industry to enhance their career opportunities.

As indicated in the DESI report (2019), compared to other European countries, Romania is among the countries with the lowest investment in the field of digital education. Unfortunately, although different initiatives have been taken lately, and various policies and strategies have been proposed in the last years, progress towards real digital development in higher education (such as the digital transformation of the Romanian university space, the governance of the university in the digital age, the certification of competences and the recognition of diplomas, pedagogical innovations or digital skills training) is still slow.

Following recommendations put forward by, for example, HEA (2019), Curaj et al. (2018), Menendez et al. (2016), PWC (2015) every university should set up in its strategy clear and concrete goals towards its digital transformation, taking into consideration three main areas (Code for Romania 2019): its digital infrastructure, the development of its academic staff's skills to use digitally-based methods in their teaching and the improvement of its students' digital skills.

The present paper is structured as follows: after the introduction, the digital portrait of West University of Timisoara (WUT) is briefly made in the next section. In the third section, we describe the research methodology that we have applied in our study, while in the fourth part, we present and interpret the research results. In the fifth section, we touch upon what we perceive to be limitations of our study, and we make suggestions for further research. The article is rounded off by a conclusion section.

2 WUT Digital Portrait

West University of Timișoara is the main higher education institution and research pole in Western Romania. Its community comprises roughly 16000 students and 700 academics. A comprehensive university, it hosts 11 faculties with their respective departments, as well as a Department of Teacher Training. WUT's faculties offer nationally accredited study programmes at Bachelor's, Master's and Ph.D. level in STEM, Humanities, Social Sciences, Performing Arts, Economics and Law. WUT is thus a comprehensive university fostering a multi- and inter-disciplinary approach to higher education and research, an innovative institution that aims at broadening its students' professional and personal horizon.

The university's strong focus on quality within an increasingly international and globalized academic world is endorsed by its affiliation to various regional, European and international higher education associations, as well as its position in world rankings (for example, the Times Higher Education Emerging Economies University Rankings Top 201–250, in 2018, the QS Rankings by Subject Top 150–200 in the field of Modern Languages, in 2017, or the Shanghai Ranking by Subject Top 301–400 in the field of Physics, in 2018). Additionally, the university's international recognition comes from alumni, with a notable example being Herta Müller, winner of the Nobel Prize for Literature in 2009. WUT offers its students the opportunity to combine theoretical and practical knowledge in a multi- and inter-disciplinary

environment, preparing them to become successful actors on the globalized labour market.

WUT has signed over 450 bilateral agreements that allow exchanges in the Erasmus+ and EEA Grants programmes and with HEIs worldwide. Moreover, WUT benefits from a modern and fully equipped library as well as language and culture centres (Chinese, Portuguese, German, Spanish, etc.). Last but not least, the student campus is constantly growing, in keeping with the principles of sustainable development. The campus (located in the heart of the city) is in itself an attraction, with various opportunities for leisure and living in a city which was elected European Cultural Capital for 2021.

With digital transformation, WUT is facing a great paradigm shift to be implemented at organizational, cultural and technological level. The university provides complex digital services to its staff and students, to educational stakeholders and visitors, through several departments (IT, Continuing Education and Distance Learning, Communication, Image and Institutional Marketing). Thus, in order to keep its relevance and remain competitive in today's digital era, WUT makes efforts connected to investments in information technology infrastructure and advanced infrastructure systems, the digitalization of operations, the implementation of smart campus infrastructure, the increase and constant improvement of digital literacy amongst its academics, students and administrative staff, the change of the current working style while concurrently adding new techniques, tools and capabilities, the reshaping of its digital culture, strengthening trust in new technologies like cloud computing, artificial intelligence or blockchain, investments in its social media presence, etc.

Generally speaking, for WUT, digital transformation is not only a technological change but also an organizational change at the intersection of technology, business and people. It actually means developing a digital way of thinking by adopting and perpetuating a new mindset. We can say that, on the one hand, WUT's top executives think digitally, they are open and embrace innovation in the university. On the other hand, the academic community is encouraged to constantly seek active solutions in order to streamline activities with the help of digital tools, proposing new functionalities via the university intranet system. Moreover, WUT is also actively anchored in the digital life of the city's broader community, every semester holding various events related to digital and emerging technologies (workshop on blockchain or open robotics, open cultural hackathon, etc.).

3 Methodology

For this study, we resort to a series of digital transformation and strategy elements mentioned in the Europe 2020 Strategy, the Digital Education Action Plan, the EU Agenda for Higher Education and Bologna Process, the National Competitiveness Strategy 2014–2020, the National Strategy of Romania 2020–2030, and WUT's Rector management program for 2020–2024 (Pirtea 2019) that place emphasis on the modernization of the educational infrastructure.

The conceptual journey for digital transformation starts with an exploratory study meant to clarify, define and identify the basic issues, problems and opportunities related to WUT digital transformation based on its students' opinions. Here are some questions addressed, some still awaiting final answers:

- Is WUT creating an inspiring digital environment for students? (What are the tools, apps and technologies that help them do their work more effectively in a digital ecosystem?)
- How does WUT engage and communicate with its students in a digital way?
- Do students easily find information about courses and drill down into richer course content and communities?
- Do students have a range of options for where to learn and how to make use of learning materials?
- Are teachers digitally prepared?
- Are there any digital channels that support students in their academic achievement?
- Do students understand their performance and potential?
- Are there any possibilities to initiate research, track their progress and collaborate with other students? Does WUT encourage digital collaboration across disciplines for research purposes?
- Are there any platforms highlighting student communities, extra-curricular activities or discounts in the local area?
- Are students prepared for a digital life after graduation?

3.1 Method

In this study, we have used the COBIT Model (Control Objectives for Information and Relevant Technology). COBIT is a business optimization tool that can help academic institutions tackle the current challenges in the arena of digital transformation (Gunawan et al. 2018) by offering effective practices (Khther and Othman 2013) through a framework, and lays down activities in an organized and flexible structure (ISACA 2018): What are the Drivers? Where are we now? Where do we want to be? What Needs to Be Done? How Do We Get There? Did We Get There? How Do We Keep the Momentum Going?

Based on the recommendations of Zahari et al. (2018) and Rampelt et al. (2019) to draft a conceptual university digital transformation design, we address here the first three steps only: 1. understanding the context and strategy by placing emphasis on the drivers and game changers towards digital transformation. 2. evaluating where our university is now, and what the current trends towards the acceptance of digital transformation are and 3. defining improvement targets, analysing gaps and identifying potential perfection.

3.2 *Data Collection*

For collecting the research data, we distributed an online questionnaire with 33 questions, via our learning management system, to Bachelor's and Master's students. Data collecting was performed between the end of October and the beginning of November 2019, with 111 respondents. Of the 111 respondents, 101 are Bachelor's students and only 10 are enrolled in Master's programs. Most students (82) come from the Faculty of Sociology and Psychology, and some are enrolled in the Communication Studies program (20), while the remaining of them represent a range of other fields of study. 26 of the students indicated that they were males, 80 said they were females, and 5 did not want to specify their gender.

The results obtained, the size of the research sample and the length of the questionnaire renders our small scale research a useful starting point for further and more complex analysis, which we intend to carry out at our university in the spring of 2020.

4 **Data Analysis and Interim Results**

Digital Communication for Educational Purposes

Valuable insights can be gained and reflected on by starting out from listening to the students. The students who completed the questionnaire are savvy, better connected (especially mobile), digitally sophisticated, they bring their own digital world expectations into the university, and they are more vocal than their predecessors. Given that 92% of the students use mobile Internet for social activities, we would have expected that they use the world wide web for other purposes extensively, too. Unfortunately, their answers to the questionnaire indicated that their use of academic services is not as wide as we expected it to be (see Fig. 1), with one exception, however—most of them (105) check their email daily, this being their main means of communication and getting academic information.

The students enrolled in remote study programs are especially interested in learning options, as they can take advantage of more flexibility when it comes to their study time. Distance learning programs may make WUT more inclusive and appealing to those students who need to work or to support their family while studying, to mature and international students who may find it difficult to take part in a full-time degree.

As can be seen in Fig. 2, the students prefer to gather information and to communicate via the email discussion groups ($SD = 1.61$), WhatsApp groups ($SD = 1.58$), via students' organisation website ($SD = 1.57$) or the department website ($SD = 1.45$).

Fig. 1 Use of institutional IT services by the students

Fig. 2 Distribution of responses to the question “My information on the requirements of student activity is available ...” (on a scale from 1 to 5: not at all, slightly, moderately, very, extremely)

4.1 Impact of Digital Technologies in Education

Although WUT shows a clear interest in digitalization, the students find the use of technology for educational purposes not to keep up with the latest technological developments. A small percentage of the WUT teachers integrate digital applications and tools into their pedagogical practices (see Fig. 3).

Moreover, the students feel that not all teachers have the necessary skills and confidence to use digital tools in their teaching activity. Thus, a major concern for the university becomes how to effectively implement these technologies so that both the students and their teachers should make the best out of them. The progress made in introducing technology into education is still low in the case analysed.

As one can see in Fig. 4, the students would like a better use of digital technologies in teaching, learning and assessment activities. For this purpose, they want to have digital media, including interactive digital textbooks, they want the use of Augmented, Virtual and Mixed Reality, 3D technologies and experiences, holograms and even drones.

Fig. 3 Distribution of responses to the question “How effectively are your teachers integrating digital technologies in their pedagogical practices to enhance student experience?”

Fig. 4 Distribution of responses to the question “Which of the following digital tools and applications are used in teaching activities?”

The students seem to be no longer interested in PowerPoint presentations ($SD = 0.6$) or YouTube videos ($SD = 0.87$). If the students suggest the use of augmented and virtual reality ($SD = 1.35$), of serious games ($SD = 1.29$), different digital tools for assessment ($SD = 1.27$) or cloud technologies ($SD = 1.2$), then why not introduce specific software into WUT that may bring direct benefits to geography or history students for, let us say, virtual tours in China, to physics students, for an astronomy course in virtual reality or to psychology or physiotherapy students, for a 3D course in anatomy?

Almost 40% of the students claim that there is a lack of online resources in Romanian language, and that there is no system for curating educational content such as bibliographic references which can be downloaded and shared. How to encourage

sharing of Open Education Resources and Open Educational Practices is an issue that needs to be addressed in the future.

4.2 Learning and Teaching with Digital Technologies

It follows from the students' questions that they want to explore new teaching methods, hybrid teaching models (flipped classrooms, blended learning, etc.) and that they usually take it for granted that they should benefit from innovative teaching techniques, personalized learning, and digital experiences. The greatest majority of the students (82%) declared that they do not have the opportunity to work on laptops or other portable devices in the classroom and, therefore, they cannot take digital notes during the courses. Moreover, there is the impediment that some of the teachers do not even accept such methods in their classes.

4.3 Digital Literacy (Knowledge, Skills and Confidence to Use New Technologies)

The students perceived both their teachers and the administrative staff to lack confidence and become nervous when it comes to using new digital technologies and engaging in digital spaces. On the other hand, not all students use technology effectively for learning or in other educational contexts. An equally important fact that they pointed out is the adaptation of the IT department team's competences, 71% of the students saying that it is necessary for them to be obviously open to the needs of the academic community and to support digital initiatives more willingly.

The most important obstacle (Fig. 5) that the students mentioned is the lack of sufficient computers (16%) and of portable devices (12%) with an Internet connection. However, in order for WUT to embrace the digital world and to make sure that its students are getting the most from new technologies, it should take into consideration the students' expressed desire for setting up of an e-learning centre (15%) that should offer them the possibility of developing their digital skills (e.g. not all specializations have a curriculum that includes computer science or ICT disciplines), of printing, photocopying or binding documents (13%), software applications and skills of analysing and solving problems with the help of digital technologies (6%); the extension of the Transversal Competencies Program offer (8%); the recognition of the credits obtained via MOOC courses (13%), etc.

Fig. 5 Distribution of responses to the question “In your opinion, what are the obstacles hindering the digital transformation of WUT?”

4.4 Teachers’ Adaptability to Change

In order to introduce innovation and technology into their activities, teachers need the right environment, infrastructure, devices and technical support from WUT. A recent measure taken by the WUT management is the “One laptop for each teacher” program. Thus, the purchase of 540 laptops was finalized (the status of the purchase can be tracked on <https://achizitii.uvt.ro/dashboard>, as proof of the transparent decision-making process in the institution). This is, undoubtedly, a big step forward as far as the digitalization of WUT is concerned, but the process is by no means concluded. As noted by 78% of the students, an approach is needed that combines teacher training, educational programs and appropriate educational materials so that digitally supported didactic processes should extend.

4.5 Digital Learning Environments

The students seem to no longer be satisfied with the typical classrooms, with banks lined up, a teacher in front of them, books and copybooks on the desks, etc. 63% of them would like alternative furniture that encourages creativity and digital collaboration, proper ventilation of the classrooms (especially of the large ones, such as amphitheatres), adequate sound systems, and the possibility of darkening the rooms for film or video clips. 73% of the students indicate the need for comfortable seats in the classrooms. Also, 64% of them require mobility (good wireless connectivity, especially in the amphitheatres), more electric plugs in seminar classrooms and smartboards. Basically, the students express their wish for redesigning the learning spaces in the university.

4.6 Digital Campus

34% of the students say that they want a vibrant campus with appropriate digital facilities. Thus, alerts about potential difficulties encountered (and thus prevention of dropout), the collection of data on the duration and timing of projects or other activities would be done in real-time. Another interesting aspect suggested by 29% of the students is that digital technologies can also be used during WUT Open Doors Days when prospective students come to the university and have the chance to explore the academic environment in depth.

4.7 Digital Technologies to Support Administrative Activities and Mobility in Education

Most students identify improvement of the services addressed to them as the main benefit of implementing new technologies in the university. Overall, students want electronic cards and a “paperless WUT”, a university that equips students with knowledge, skills and competencies, which will turn them into conscious advocates of a sustainable Europe and hence, into active EU citizens. They expressed their desire for:

- easy access to the information systems available in the university, other than those offered by their own faculty (13%);
- integration with industry 4.0, collaboration and partnership with international organizations and industries (preparing students for the job market—19%);
- an online admission to the university (13%);
- a simplified enrolment procedure (16%): the students underlined that the enrolment process must be unsophisticated and clear, and that the students’ progress should be easy to track online;
- soft-skills practice as part of their curriculum;
- digital assessment (16%);
- dedicated apps (18%): mobile orientation applications in WUT physical spaces, the possibility to schedule meetings with their teachers online, to send requests to secretaries, to be able to make contactless and mobile payments, etc.;
- secure use of student data and access to academic results (15%) (in this sense, WUT has completed the acquisition of an IT monitoring service for course attendance and for electronic catalogues);
- reduction of administrative procedures (19%);
- a platform on which all kinds of documents can be accessed (18%);
- ERASMUS students want access to the services to which the Romanian students are entitled (6%);
- other online students’ services (21%): cultural passports, orientation in the city, etc.

4.8 Data Protection, Security and Confidentiality

42% of the students say they know what GDPR is, 17% do not know and 41% say they have an idea but do not know for sure what it is. On the other hand, some of the students do not know what kind of data is collected by WUT (there is no clear reference on this matter), and what the operations and activities required to process this data (including evaluation) are. In addition, the vast majority of the students expressed their concern that, at the level of WUT, there is no online code of conduct, nor the possibility of reporting abuse or harassment in the online environment. However, there is an online service via which complaints, suggestions or recommendations may be filed, but it is not specifically dedicated to matters connected to the digital environment (<https://www.uvt.ro/ro/sps-uvt/>).

4.9 Social Media Presence

One positive thing mentioned by the students is that WUT has a “voice” on social media platforms. There are Facebook pages of WUT and its faculties and even of some of its departments, Instagram accounts, live streaming of events, etc., administered either by the Students’ Union (OSUT) or by the Image and Communication Department. The information is constantly updated, and its direct impact on potential and current students and graduates (alumni) is thus guaranteed.

As can be seen in Fig. 6, 80% of the students are familiar with and use the Facebook pages. To a lesser extent, students use Instagram (11%) or other university social platforms (less than 10%).

Fig. 6 Distribution of responses to the question “Do you follow the social media accounts of the university?”

On the other hand, if students want teachers to have blogs or informal spaces of expression, to interact with them through digital and social media, not all teachers feel comfortable to be involved in students' social media communities (Facebook or WhatsApp groups). Some are afraid of negative reactions or criticism posted as comments. Too much involvement can also be harmful (for example, if the content of the courses is extensively talked about in the online media, the students may consider that, once they already know much of what is going on, attending them becomes unnecessary).

4.10 *Lessons Learned and Discussion*

As far as possible, we prefer to refer to barriers to going digital as *action priorities* for digital transformation. Based on our findings, some of which are highlighted in the WUT Rector's Managerial Program for 2020–2024 (Pirtea 2019), we identified some opportunities which can be easily implemented in our university. Overall, more than half of the students surveyed expect a change, a disruption in the current university model within the next 2–3 years. These students' optimism regarding such a narrow time span for change will be interesting to track in the future research we intend to carry on in the spring of 2020.

Along the journey to digital transformation, there are some specific action priorities to be considered in order to **develop a digital strategy**; or, more precisely, a business strategy that fits the digital age:

- **Developing a digital teaching and learning policy** that clearly and relevantly reflects the support for high quality education, for the development of the digital skills of the academic community, the stimulation of innovation in the institution, the provision of a framework for the issuance of certified digital qualifications and for the validation of the acquired digital skills (e.g. MOOC courses) that are reliable, multilingual and can be stored in professional profiles (e.g. CV EuroPass). In addition, there should be a clear policy for social media use in the university.
- **Changing the teaching methods currently in wide use is becoming a necessity.** Thus, in order to be able to align with the rapid pace at which the world is changing, the traditional methods of teaching in WUT must be changed with new ones that promote the students' digital skills and abilities as well as their flexibility of thinking.
- **Creating a new team structure** consisting of both teaching and administrative staff from various in-house departments as well as external consultants and experts from fields such as learning and knowledge, research in leading areas such as AI, blockchain, etc., marketing and communication and, of course, business digital transformation, software architects and User Experience Design specialists. We must focus on assessing the digitalization needs and the digital maturity of our institution in order to understand what triggers them both and to be able to design functional and viable digitalization solutions:

- *Development of top strategies and practices aimed at introducing and applying digital technologies in education* (but not only), which meet curricular standards not only in Romania but also at world level.
- *Testing how the WUT brand is perceived on the educational market* (by applying surveys, monitoring the social channels, etc.).
- *Support ongoing development of digital literacy skills* for the entire academic community.
- *Adjusting, modernizing educational forms and practices to take advantage of new digital technologies.* For that, it is useful to have a training portal for digital tools and apps, support content and access to all WUT e-learning platforms, a hub of interactive open educational resources that may become a place where students' educational projects have their own space for dissemination (and obtaining funding).
- *Development of career guidance methodologies focused on the needs of the students*, correlated with the skills needed in the IR4.0 era but also taking into consideration the age and individual characteristics of each student.
- *Optimization of study offers to support of employability* (in the 2019–2020 academic year, WUT launched the first Digital Media program at bachelor level).
- **Improvement of existing digital platforms.** The Moodle e-learning platform needs to become more user-friendly. In addition, it is necessary to create and implement integrated digital educational tools to enable innovative management at the institutional level.
- **Working with industry partners.** For example, the partnership with Google can be extended, not only to provide G-suite (Google Apps for Education) to students and educators but to offer different programs, projects and resources to develop applied skills for the future.
- **By using advanced (learning) analytics,** the university can support and improve academic performance, employability rates, student progress and student retention. Currently, Moodle is used rather as a repository of lecture notes from which the students download materials. Thus, it provides little benefit to the students and restricted provision of data for use in analytics. On the other hand, students' analytics are a great ally for university IT leaders to improve their experience. Regarding the learning environment, it is necessary to have *informal learning and functional research spaces that are fully equipped from a digital perspective* (functional Wi-Fi in each room, projector and laptop, etc.).
- **Exploiting innovations in the field of mobile technology** in order to improve the educational process (for example, there is eduroam, but mobile applications are needed for orientation, communication purposes, etc.).
- **Reinforcing cyber security** by adopting appropriate safety measures and accreditations. For instance, WUT may make use of IoT for assuring physical security on campus by using drones for surveillance.
- **Launch of artificial intelligence pilot projects.** An AI conversational interface for the admission process, or for online talks with the teachers, the existence of a chat bot to answer queries via the web or the phone or other virtual assistant

technology which can allow students to be engaged in constructive and helpful dialogues may prove vital for the implementation of the digital transformation envisaged.

- **Leverage cloud technologies** to drive innovation. Although WUT currently has this possibility, it is not resorted to widely enough, there is lack of trust in it or concerns for reliability, security or resilience.
- **Increase financial allocations** (significant fundraising and development) for programs that support the digitization of education but also for those academics concerned with continually developing their digital skills and developing new innovative teaching techniques.
- **Continuing to strengthen a climate of digital culture** across a range of social channels, web sites and apps.

This digital journey is a complex process, which has not been completed yet. Although the data we analysed provided interesting insights into WUT digital transformation and respond to our research questions, there are some limitations that should be acknowledged. Firstly, our study is an exploratory one. Secondly, it is based on a small set of answers from a limited number of respondents that do not include potential future students, postgraduate students, and alumni. Thirdly, the respondents came mainly from two subject groups (sociology and psychology)—this limits our analysis since students in other fields of study may see things differently and thus alter the results obtained so far.

To conclude, this research aimed to identify how digital transformation affects West University of Timisoara and its nearest academic community. Based on a quantitative analysis of students' experience how WUT can prepare and transform in order to adopt an integrated digital approach, it can be concluded that WUT must take significant steps toward implementation of digital transformation, being also watchful and cautious of its hidden implications.

5 Where to Next?

In the future, digital transformation should concern areas and stakeholders other than merely the academic community (board members, teachers and researchers, undergraduates, postgraduates, alumni, potential future students, the administrative staff). The government and public institutions, the civil society, the business industry may all be looked at through the digitalization lens.

Despite the visible steps forward already taken, there is still a long road ahead, but for the moment, WUT can be considered a university that wishes to transform itself into an agile and vibrant institution with its own digital personality. In this respect, WUT is committed to being a leader in establishing strong digital goals and programs for its own practices and has already tied these efforts to education and research programs. The WUT Strategic Plan for 2016–2020 (WUT 2016) emphasizes both student inclusion and academic excellence in the conviction that well-educated

students from all backgrounds are needed to build a sustainable future and a fit for the digital age university.

The current and future digital transformation solutions implemented by WUT are focussed on creating new learning experiences, new learning paths, new ways of collaborating for research purposes, developing policies to better connect open educational resources, open science and innovation. The experience gained here and in other universities undertaking similar journeys can constitute the basis of a national strategy for the digital transformation of all higher education institutions in Romania and can be relevant to the European Higher Education Area, too.

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