

FACING THE NEW LEARNING NORMALITY - EUROPE AT A GLANCE IN THE CONTEXT OF CORONAVIRUS PANDEMIC

Ioana Andreea BOGOSLOV¹, Anca Elena LUNGU²

¹Lucian Blaga University of Sibiu, Romania

²Alexandru Ioan Cuza University of Iași, Romania

Abstract

Over time, digital tools have benefited from an increasingly intense use, being recognized for their beneficial potential in many areas of activity. Among many other domains in which technological instruments have been integrated in order to improve the processes carried out, we can mention the educational environment.

Multiple policies have been adopted at European level in order to support the use of digital tools as a complementary activity to traditional learning. The transition from traditional education to education supported by ICT tools has been and continues to be one of the main interest areas in each European country.

However, the COVID-19 pandemic has led to a new learning normality in which distance learning has been the only option to ensure the continuity of teaching and learning processes. We naturally wonder if we have been fully prepared for such a situation given that the digitization of educational processes is an ongoing process in Europe.

The aim of this paper is to identify and summarize the main obstacles regarding the distance learning processes in Europe, in a situation where there was no other possibility. In the absence of a good understanding of these issues, it is impossible to manage a similar situation in the future. The results obtained from the analysis highlight real challenges related to disadvantaged socio-economic environments, such as rural areas. Also, aspects associated with the pedagogical side, digital skills of participants in educational processes, enabling conditions and others were discussed.

Keywords: *E-Learning, Europe, Digitization, Distance Learning*

JEL classification: *O14, D83*

¹ Teaching Assistant, Ph.D. Student, Lucian Blaga University of Sibiu, Romania, Faculty of Economic Sciences, e-mail: andreea.bogoslov@ulbsibiu.ro

² Ph.D. Student, Alexandru Ioan Cuza University of Iași, Romania, Faculty of Economics and Business Administration, e-mail: ancalungu01@gmail.com

1. Introduction

In recent decades, digitalization has been an intensely debated trend, a premise often considered necessary for the development of society and the economy in a context of globalization represented by intense competitiveness. However, the transition from traditional to digital has never been a mandatory requirement to ensure the proper functioning of all areas of activity. The adoption of ICT tools was often considered additional or possible, indeed aiming to improve various activities.

The end of 2019 marked the beginning of the coronavirus pandemic, giving rise to a new normality. This new normality has exercised and will continue to exert its influence on all areas of activity, urging us to gradually get used to it and to see change as a new beginning.

In our new journey, digitization has become imperative. In many areas, reorganization through the intense integration of technology was the only way to continue the activity. These include the educational environment. By April 2020, most educational institutions around the world had been temporarily closed in an attempt to combat the spread of the COVID-19 pandemic. In terms of global figures, UNESCO reported 1,287,571,163 students affected, ie 73.5% of all students enrolled in pre-school, primary, lower secondary and upper secondary education, as well as in tertiary education (UNESCO, 2020).

The closure of educational institutions for a limited period of time did not mean the cessation of teaching and learning activities. To a large extent, they continued in remote learning mode, through distance learning solutions, mostly supported by online functionalities. E-Learning systems or platforms that can be used for educational purposes have ensured the carrying out of teaching and learning activities.

What is the truth behind the new learning normality? Were we fully prepared to adapt educational processes through the predominant use of E-Learning systems? Did we have the necessary capabilities and resources? These are just some of the questions we naturally seek answers to.

The purpose of this article is to identify the main challenges related to the adoption and effective use of E-Learning systems in Europe, in an educational context where distance learning is the only option. Starting from the premise that past events can lay the foundations for good management of possible future similar situations, we aim to highlight the main problems that have affected and can affect distance learning. A good understanding of these gaps can lead to the adoption of avoidance strategies and measures.

2. Methodology

From a methodological point of view, this article involved the research of numerous external sources, including both scientific papers in order to review the literature specialized in the field, and official studies and statistics considered significant in accordance with the established purpose. Subsequently, key issues that could hinder the implementation and delivery of E-Learning in educational institutions in Europe were highlighted.

3. Challenges of E-Learning Usage

Although E-Learning tools have benefited over time from an increasing use, often reporting many positive influences on educational processes, the literature also highlights some challenges that can be experienced. In the absence of a good understanding of the possible barriers that may arise while using E-Learning systems, it became impossible to develop strong educational processes.

Among the challenges related to the adoption of E-Learning as an integrated part of educational processes, the literature refers to barriers related to the actors involved, namely instructors and students and barriers related to the technological, financial or administrative fields. In a general sense, we can consider the above as complementary when it comes to the use of E-Learning systems.

Based on a systematic review of the literature completed by conducting an interview study and a questionnaire survey of learners, Childs et al. (Childs, Blenkinsopp, Hall, & Walton, 2005) identified several main obstacles to the E-Learning use in health. The researchers referred to challenges such as: the need for change; poorly developed or non-existent skills; appropriate technology; costs; poorly designed packages; the need for a face-to-face teaching component; the intensive nature of E-Learning time; computer anxiety.

Leary & Berge (Leary & Berge, 2006) grouped the main challenges regarding the use of E-Learning for national and international agricultural development into three broad categories, targeting various specific points:

- gaps between trainers and designer, such as the transposition of educational materials in an appropriate format to the online environment;
- challenges faced by trainers, including lack of time and skills needed to adopt new technologies, lack of formalized reward systems, concerns about losing the student-instructor relationship, etc.;

- challenges faced by learners, including the adoption of technology and the use of computers.

According to Panda & Mishra (Panda & Mishra, 2007), significant barriers related to the adoption and use of E-Learning in single mode mega universities refer to poor internet access by learners and lack of training in E-Learning. At the same time, the researchers mentioned the institutional policies and instructional design necessary for E-Learning as representing possible challenges.

Yunus et al., analyzing the challenges and issues related to Language Learning via ICT, highlighted the importance of the digital skills existence, referring to abilities on accessing, processing and using information in a technological educational context (Yunus, Lubis, & Lin, 2009).

Regarding the challenges related to the use of ICT in education from the perspective of instructors, Salehi & Salehi (Salehi & Salehi, 2012) indicated insufficient technical support and reduced access to the Internet as major obstacles. The descriptive analysis of the results also showed that lack of time represents a significant barrier that discourages teachers from using ICT tools complementary to traditional learning.

In a study on the adoption of E-Learning in higher education in Tanzania, Kisanga & Ireson highlighted as the main barriers the following: poor infrastructure; financial constraints; inadequate support; lack of knowledge regarding E-Learning and teachers' resistance to change (Kisanga & Ireson, 2015).

Aiming at the implementation of E-Learning in higher education, Aldowah et al. (Aldowah, Ghazal, & Muniandy, 2015) classified possible obstacles or barriers into five main categories. These refer to: human constraints, administrative constraints, technical constraints, financial and physical constraints.

Given the major differences between the many existing educational fields and their specific needs, we can say that research conducted over time on potential barriers to the adoption of E-Learning has been often focused on certain topics (such as the subject area, a particular field, educational environment etc.). Therefore, identifying a general framework of barriers to the adoption of E-Learning in education represents a difficult task.

Considering the studies previously presented in the form of a brief literature review, we observe different approaches that result in somewhat similar findings. The mentioned researches represent only some of those offered by the specialized literature over time regarding the challenges related to the

adoption of distance learning through E-Learning tools. It is important to note that, although carried out at considerable intervals, research results often reveal similar obstacles.

In an attempt to define a conceptual framework that takes into account all current research on barriers related to the implementation of E-Learning, Ali & Gulliver (Ali & Gulliver, 2018) proposed the TIPEC framework. It aims to group 68 unique barriers identified in four conceptual categories, namely: Technology (T), Individual (I), Pedagogy (P) and Enabling Conditions (EC).

Starting from the aspects mentioned above, we conclude by considering the TIPEC framework as a good starting point in measuring the capabilities, resources and potential to adopt distance learning regardless of the field on which the analysis is performed. Surely, new challenges can be identified along the way and included in existing or new groups.

4. Spotlight on Europe

In order to solve the purpose of this paper, attention has been focused on the obstacles encountered in Europe in terms of the possibility of a new normality of learning, supported predominantly by digital distance learning. Thus, an attempt was made to synthesize the main challenges exposed through well-known statistics and studies in this regard.

The model proposed by Ali & Gulliver (Ali & Gulliver, 2018) is focused on E-Learning usage as a complementary activity to traditional learning in classrooms. Given a potential crisis, in which educational processes cannot be carried out through face-to-face physical encounters, in our analysis we considered only the barriers that may appear beyond the possibilities offered in educational institutions as physical locations. Table no. 1 provides an overview of the barriers considered for the purpose of the analysis in question.

Table 1: Barriers in Distance Learning through Online Instruments

DIMENSION	BARRIERS
<i>Technology</i>	<ul style="list-style-type: none">• available learning software;• compatible technology needed;• software and interface design;• lack of facilities;• bandwidth issue and connectivity.
<i>Individual</i>	<ul style="list-style-type: none">• digital skills;• learning environment.
<i>Pedagogy</i>	<ul style="list-style-type: none">• pedagogy models;

	<ul style="list-style-type: none">• digital educational materials;• involvement of students in online activities.
<i>Enabling Conditions</i>	<ul style="list-style-type: none">• rules and regulations;• procedures.

Source: Authors' proposal

Our approach took into account the TIPEC framework, the analysis being focused on the four dimensions, but including or regrouping only the barriers considered relevant to the analyzed context and for which the necessary research resources allowed us a generalization at European level.

4.1 Technology

The undeniable progress of the Information and Communication Technology field has led to the development and implementation of numerous distance learning solutions, most of which are supported by online functionalities. The multitude of available resources that can be used for educational purposes allow us to avoid language or cost barriers. The possibilities offered by these software tools are extremely complex and many of them provide increased compatibility with other technologies supporting activities such as audio and video conferences, tests, exercises, collaborative tools etc.. In the context of the coronavirus pandemic, UNESCO has recommended a wide range of such applications, covering categories such as, but not limited to: Digital learning management systems (eg Google Classroom, Moodle), Collaboration platforms that support live-video communication (eg Zoom, Hangouts Meet, Teams, Skype, WhatsApp) and Massive Open Online Course (MOOC) Platforms (e.g. Coursera, EdX, Udemy) (UNESCO, 2020).

We notice the advantage of not being forced to use a certain E-Learning platform, which reduces the occurrence of risks related to compatible technology needed, software and interface design or lack of facilities. In addition, most online distance learning systems are multilingual and offer a wide range of free or even completely free facilities. Having the opportunity to choose from the many existing solutions, educational processes can be customized according to needs, which determines efficiency.

Also referring to the technological side, bandwidth issue and connectivity are among the basic pillars of ensuring the functionality of E-Learning systems. The results obtained through the well-known Digital Economy and Society Index (European Commission, 2019) of comparing the degree of digitalization of the EU Member States, highlight some notable

aspects for 2019. In terms of basic broadband, referring to all major technologies (cable, FTTP, HSPA, WiMax, xDSL, LTE and satellite), they are available to all homes in the EU. Moreover, 97% of EU homes are covered by fixed and wireless technologies. In addition, 20% of the European homes are subscribed to ultrafast broadband, Romania, Hungary, Belgium, Sweden and Portugal being leaders in this respect.

Despite all these favourable aspects regarding connectivity, rural areas in the EU face some obstacles. The findings of the DESI index show that 13% of homes in the EU are not covered by any fixed network, while 48% by no NGA (Next Generation Access, providing at least 30 Mbps) technology. However, mobile broadband usage has benefited from a significant increase, the trend being maintained for rural areas as well.

Good results in terms of connectivity in general at European level also facilitate access to the Internet for stakeholders in educational processes, but connectivity is an area where geography matters in many countries. In this sense, the rural environment represents a challenge.

4.2 Individual

The barriers specific to the individual level included in the TIPEC framework target the learners and any challenges they may face in terms of distance learning. As a direct beneficiary of the educational process, the learner can be considered one of the most important pillars.

However, we consider compulsory to include and analyze at the individual level the instructors or teachers and parents. The attitudes and digital skills of teachers and parents are critical factors when learning moves home, especially for pre-university students. Their attitudes towards digital technology and their ability to use can positively contribute to distance learning processes or hinder it.

In order to develop digital competence, unlike other traditional school subjects, it is approached as a key transversal competence, not just a subject in itself, according to a study on Digital Education at Schools in Europe developed by the European Commission (European Commission/EACEA/Eurydice, 2019). The European Commission also reports that at European level, in about half of education systems, higher-level recommendations or regulations promote the inclusion of digital competences specific to teachers in initial teacher education (ITE).

Although digital progress itself is undeniable and the use of technological tools may seem to be a basic occupation to many of us, the current

reality is completely different. Regarding the human capital dimension in DESI 2019 (European Commission, 2019), at EU level only 57% of citizens have at least basic digital skills, while above 31% of European citizens rank above basic digital skills. The problems arise in disadvantaged environments, as at EU level the digital progress is not similar for all Member States. Finland, Sweden, Luxembourg and Estonia obtained the highest scores with respect to human capital digital skills, while Bulgaria, Romania, Italy and Greece ranked last.

Hence, the lack of digital skills can be found both among students and among teachers and parents. We can consider that, as participants in educational processes, students and instructors can have a greater capacity to develop and use digital skills in education. On the parental side, however, the challenges can involve many more aspects. A European study conducted by Chaudron et al. (Chaudron, Di Gioia, & Gemo, 2018) reveals that, in addition to the challenges of using digital technology itself, many parents face difficulties in delimiting the constructive use of digital technologies that can support their children's learning and unhealthy use of these devices.

In addition to the barriers related to digital skills held by instructors, students and parents, the learning environment is very important. A prerequisite for being able to learn from home is to have a computer or smart device. In this sense, the European average is favorable. In Denmark, Slovenia, Lithuania, Iceland, Austria, Norway, Poland and Switzerland, more than 95% of students reported having a computer that they could use for educational purposes (OECD, 2020). However, there may be major differences between different socio-economic groups. In disadvantaged environments, the percentages tend to decrease significantly.

4.3 Pedagogy

The use of distance learning supported by online means can be considered a representative feature for the new generations of learners. For these individuals who grew up in an era represented by the evolution of technology, traditional learning models certainly need to be adapted in order to be effective. Sustaining this theory, George Siemens and Stephen Downes laid the foundations of the most recent learning paradigm, namely connectivism. In a broad sense, this learning current involves the application of learner-centered learning in a digital context in which knowledge is formed based on connections (Siemens, 2005).

In line with the theory of connectivism, many of the European pedagogical models have been gradually adapted, encouraging collaboration

and personalized learning, while also involving the use of technological tools. Moreover, half of European education systems are in the process of reforming the digital literacy curriculum. Some reforms include changing the curricular approach, updating the content or strengthening certain areas, such as coding, computational thinking or security (European Commission/EACEA/Eurydice, 2019).

However, the existing evidence on the pedagogical side mentioned above reports ongoing processes. Therefore, the pedagogical challenge related to the development of teaching activities only through the means of distance learning is extremely high.

Obstacles of pedagogical nature are inevitable in a crisis situation and refer, in addition to the pedagogical models themselves, to aspects such as the existence of educational materials in digital format, the degree of acceptance of instructors on the distribution of materials online, difficulties in involving students in online activities, and so on. Undoubtedly, no European country was fully prepared to avoid pedagogical challenges in the context of a new learning normality generated by the COVID-19 pandemic.

The sudden transition to distance learning through E-Learning systems had numerous consequences on pedagogical processes. One such consequence is that the activities were based predominantly on theoretical materials, in the absence of the possibility to carry out practical activities online or in the absence of such materials. A study by the European Commission in which providers of professional skills from 36 countries, including the 27 EU Member States were surveyed found that in only a few cases the online teaching activities involved video demonstrations or the use of step-by-step instructions to show practical skills related to a specific VET profession (European Commission, 2020). Although this is a specific example, the problem existed in many areas.

On the other hand, the involvement and monitoring of students in online teaching activities can be very difficult in the absence of an awareness of its need. In the absence of a physical monitoring of learner, the teacher may find himself in the situation where he is not able to determine active participation of the learners or even his collaboration initiative is rejected. Proof of these problems are the multitude of materials distributed by students in online environments through which learning is treated, to some extent, superficially.

The aspects mentioned above emphasize only some of the pedagogical level challenges that can be faced when trying to carry out educational activities only through distance means. Certainly, at global level, not just at the EU level,

there are currently a small number of countries that could shift the traditional learning to digital learning, having all the necessary pedagogical resources.

4.4 Enabling Conditions

Regarding the enabling conditions in the analyzed context, we will refer to rules and regulations aimed to support the distance learning normality. Most EU Member States' legislation has been implemented promoting a high degree of acceptability regarding the simultaneous use of distance learning with traditional learning. This highlights the efforts made in order to increase the digitalisation level in education.

Starting from the premise that interruptions in education can have long-term negative implications, education representatives from all European countries have taken steps to continue their work in the context of COVID-19 pandemic. Such measures involved, inter alia, the reorganization of school curricula, new rules related to the final examinations, new admission procedures and others.

Enabling conditions in such crisis situations take on a completely different meaning, involving the application of measures to ensure the continuation of educational processes without endangering the participants involved. The challenges are represented by the lack of contingency plans that can be implemented immediately at national level for each European country. However, efforts at European level have been consistent with the aim of supporting the continuation of teaching.

5. Conclusions

The analysis carried out in this paper aimed to highlight some of the main challenges encountered at European level in terms of continuing teaching in the context of the coronavirus pandemic. The aspects presented reveal several barriers reported by distance learning through online devices that, through awareness, can be avoided in the future.

A first conclusion is that, in the case of distance learning, geographical locations represent critical factors. It was noted that disadvantaged environments, often rural ones falling into this category, are real challenges. Whether we are talking about issues related to technology itself, connectivity, digital skills and so on, less developed socio-economic environments can hardly engage in remote learning.

At the same time, the pedagogical side is not yet fully prepared for a radical change that involves the transition of traditional learning in the digital

environment. The lack of digital teaching materials, the impossibility of experimenting in certain situations and the involvement of students are just some of the problems that arise in this regard.

In terms of enabling conditions they involve major restructuring and reorganization to facilitate learning without physical interaction. In a crisis situation such as the one presented in this article, various policies have been implemented to support the continuation of teaching activities, but these were not provided for in regulations and obviously contributed to changing the previous normality of learning.

The future directions of the research in question involve a more detailed analysis, focusing on issues at national level. There are major differences between EU Member States in terms of digitalisation in general, which requires an individual analysis of the challenges of distance learning in the 27 countries.

6. Acknowledgement

This work was co-financed from the European Social Fund through Operational Programme Human Capital 2014–2020, project number POCU/380/6/13/125015, “Development of entrepreneurial skills for doctoral students and postdoctoral researchers in the field of economic sciences.”

7. References

- Aldowah, H., Ghazal, S., & Muniandy, B. (2015). Issues and Challenges of using E-Learning in a Yemeni Public University. *Indian Journal of Science and Technology*, 8(32), 1-9. doi:10.17485/ijst/2015/v8i32/92160
- Ali, S. U., & Gulliver, S. (2018). A conceptual framework highlighting E-Learning implementation barriers. *Information Technology & People*, 31(1), 156-180. doi:https://doi.org/10.1108/ITP-10-2016-0246
- Childs, S., Blenkinsopp, E., Hall, A., & Walton, G. (2005). Effective e-learning for health professionals and students—barriers and their solutions. A systematic review of the literature—findings from the HeXL project. *Health Information & Libraries Journal*, 20-32.
- European Commission. (2019). *Digital Economy and Society Index Report 2019 - Human Capital (Digital Inclusion and Skills)*. European Commission.
- European Commission/EACEA/Eurydice. (2019). *Digital Education at School in Europe*. Luxembourg: Publications Office of the European Union. doi:10.2797/763

- European Commission/EACEA/Eurydice. (2019). *Digital Education at School in Europe*. Luxembourg: Publications Office of the European Union. doi:10.2797/763
- Kisanga, D., & Ireson, G. (2015). Barriers and strategies on adoption of E-Learning in Tanzanian higher learning institutions: Lessons for adopters. *International Journal of Education and Development using ICT*, 11(2), 126-137.
- Leary, J., & Berge, Z. L. (2006). Trends and challenges of eLearning in national and international agricultural development. *International Journal of Education and Development using Information and Communication Technology*, 2(2), 51-59.
- OECD. (2020). *Learning remotely when schools close: How well are students and schools prepared? Insights from PISA*. OECD.
- Panda, S., & Mishra, S. (2007). E-Learning in a Mega Open University: Faculty attitude, barriers and motivators. *Educational Media International*, 44(4), 323-338. doi:10.1080/09523980701680854
- Salehi, H., & Salehi, Z. (2012). Challenges for Using ICT in Education: Teachers' Insights. *International Journal of e-Education, e-Business, e-Management and E-Learning*, 2(1), 40-43.
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology & Distance Learning*, 3-10.
- UNESCO. (2020, 05 03). *COVID-19 Educational Disruption and Response*. Retrieved from UNESCO: <https://en.unesco.org/covid19/educationresponse>
- Yunus, M. M., Lubis, M. A., & Lin, C. P. (2009). Language Learning via ICT: Uses, Challenges and Issues. *WSEAS Transactions on Information Science and Applications*, 6(9), 1453-1467.