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The Importance of Digital Education in a Pandemic and Post-Pandemic Context

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Abstract

The pandemic context has changed the way we think, live, act, work, spend our free time and travel, profoundly affecting our health, education, and behavior. This paper aims to make a diagnostic analysis of the Romanian education system before and after the pandemic, presenting, through a SWOT analysis, the strengths, weaknesses, threats and opportunities of the entire education system, solutions, and recommendations. The transition of the educational process from the "face to face" system to the online, remote system has produced a digital segregation that has only accentuated the inequality between different social groups. This concept refers not only to unequal access to digital content and the acquisition of skills to use information technology, but also to stale, underperforming computers, internet connection, slow speed, etc. Human interaction, communication, empathy, visual, auditory, and kinaesthetic impact are the necessary ingredients to learn effectively, to focus our attention, and to develop normally from a physical, social, emotional, and psychological point of view.

Keywords: digital education, digital segregation, pandemic, post-pandemic.

JEL Classification: I21, I23, I25.

1. Introduction

The digitisation of education was forced upon us with the outbreak of the COVID-19 pandemic. All actors involved in education, teachers, students, and parents have been affected by the brutal impact and forced shift from traditional

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face-to-face education to digital, online education through platforms such as zoom, google classroom, teams, skype, etc. Thus, each school adapted on the fly to the new conditions, as did students and parents who overnight found themselves sequestered at home and trapped not only in work problems, but also in the problems of adapting to the new technology.

The digitisation of education has been talked about since 2011, so the National Education Law no.1/2011 stated that a virtual school library will be created, containing a series of courses, teaching materials, assessment tests, etc., accessible to both teachers and students throughout the country. Through this method of digitisation, teachers were supposed to draw inspiration from the best and teach students new and interesting things, but unfortunately this has not happened due to political instability and lack of political and social commitment and responsibility. We can say that the pandemic has forced the digitization of the Romanian education system, a change that has brought both good and bad things, but unfortunately the burden has fallen on the shoulders of parents and teachers.

Digitisation is a catalyst that has pushed things forward, and today it has become visible. If you were to ask someone before the pandemic how they saw the future of education, one of the answers was surely digitisation, but not the first. Today, this trend has become more pronounced, even if we all had a hard time, and in the beginning there was resistance to change, for 2 years we had no choice but to adapt as we went along, so that things did not stagnate, and we slowly built up the necessary antibodies to face the new challenges.

Historian Yuval Noah Harari (Carthaus, 2020) urges a balanced use of new technologies, especially biometric devices, because on the one hand they will become invasive on the human heart and brain, and on the other they will widen the gap between social classes. We must not forget the difference between the human being and technology, the human being has free will, and we must not become slaves to technology. Psychologists, neurologists, and specialists in digital education draw attention to the negative effects of too much screen time on physical and mental health, as well as on the social, school and family environment.

Digitising education does not solve all the problems; just because we have access to certain materials, courses, and tests does not mean that learning has been achieved. Education is not about memorising or learning things; it is much more than that; it is about transmitting values, patterns of behaviour, attitudes, a way of being and thinking, which cannot be achieved through digitisation.

Digitisation increases accessibility, but it does not solve all the problems of the education system, putting a tablet in a student's hand does not mean they will know the information put there. The atmosphere, the environment in which the information is learned, the auditory, visual, and kinaesthetic means are equally important in the learning process. Each of us has a particular learning style, but combining styles is the most effective way to understand, retain, and make connections.

We must also distinguish between the word *"know" and "to know"*, to know means to read or to become aware of certain things, facts, events, but to know means to experiment, to put into practice the information, the knowledge acquired in order to acquire certain skills. Studies have concluded that learning outcomes are better when students learn from books than when they learn from tablets. Obviously, digitisation is an irreversible path; we can see that the current generations have much better developed digital skills than other generations.

Digital education is weaker in its effects than face-to-face education, but if you come with traditional and put digital on top, then the effect is greater and studies show that it is up to 25% greater because the mechanisms mesh and the learning is different from person to person. Technology must help us discover new ways of teaching, new ways of generating content, new ways of interacting with the learner/student and motivating them to learn and stimulate their curiosity to investigate.

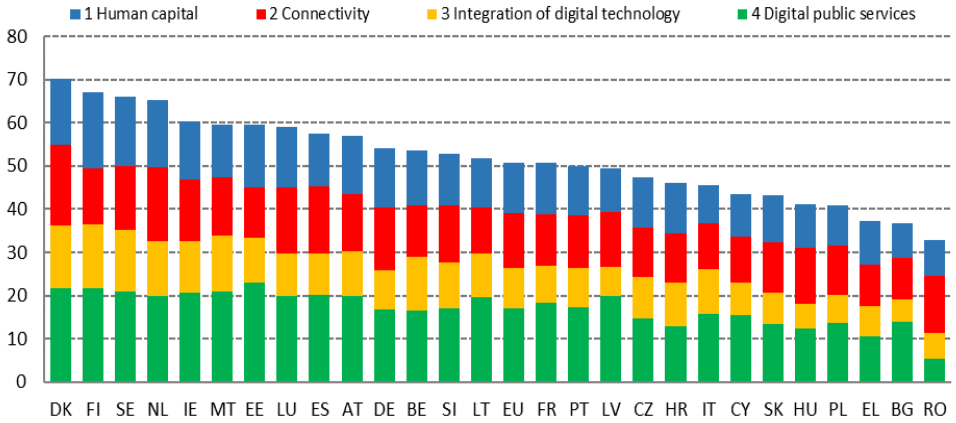
Digitising education is not about putting certain lessons or books on email, it is about the existence of two elements: the audience that will use the material and they (teachers, students, parents), would be better off being digitally literate, and the second element is the need of tools. These two elements go hand in hand, they interlink, for nothing we have an audience if we don't have tools and vice versa.

PISA scores have been declining in recent years, and if we correlate PISA scores with digitisation, they are not relevant because we should take into account several variables, the level of economic development, the share of GDP that education receives, but also its value, the level of teacher training, etc. PISA is a comparative educational test, on three components: language, mathematics, and science, for 15-year-olds, and it matters because the direct effect is tracked in the economy, not in education.

The Evolution of Digitisation in Romania and the EU

According to information provided by the European Commission, the evolution of a country in terms of digitisation is measured by 4 key factors: connectivity; human capital, digital technology integration, and digital public services. If we analyze the Digital Economy and Society Index (DESI) and compare it with the EU, we can see (see Figure 1.) that Romania is at the bottom of the ranking, if in the period 2018-2020, it was ranked 26th and with an overall increasing score, in 2021, it will be ranked 27th out of 27 countries with a lower score of 32.9 compared to the EU score of 50.7 and the DESI components have undergone small changes, so human capital occupies 26th place, connectivity 10th place, digital technology integration 25th place, and public digital services last place.

Figure 1. Digital Economy and Society Index 2021



Source: DESI 2021, European Commission, Digital economy and Society Index (DESI) 2021, data accessible online at https://digital-strategy.ec.europa.eu/en/policies/desi.

The first component of DESI is connectivity; Romania ranks 11th in 2020 and 10th in 2021 (see Table 1), managing to approach the European average in terms of high-speed broadband and 4G coverage, and in terms of broadband prices (fixed, mobile, converged), Romania ranks first. What remains a problem for Romania is the digital divide between urban and rural areas, but here too we are above the EU average (39% vs. 20%).

Table 1. DESI rankings and score for Romania and the EU, 2018-2021

1. Connectivity		**DESI 2018**	**DESI 2019**	**DESI 2020**	**DESI 2021**
Romania	rank	6	8	11	
	score	48.8	50.0	56.2	
EU	score	39.9	44.7	50.1	
2. Human capital					
Romania	rank	28	27	27	
	score	31.5	31.1	33.2	
EU	score	47.6	47.9	49.3	
3. Integration of digital technology					
Romania	rank	27	27	27	
	score	20.8	21.3	24.9	
EU	score	37.8	39.8	41.4	
4. Digital public services					
Romania	rank	28	28	28	
	score	41.1	45.0	48.4	
EU	score	61.8	67.0	72.0	
TOTAL DESI Romania		**26/35.1**	**26/36.5**	**26/40.0**	**27/32.9**
TOTAL DESI UE		**46.5**	**49.4**	**52.6**	**50.7**

Source: European Commission, Digital economy and Society Index (DESI) 2018-2021, data accessible at https://sph3ra.ro/wp-content/uploads/2021/07/DESI-2020-Country-Analysis-Romania.pdf (DESI, 2021).

The second factor taken into account in the statistics is human capital, where Romania is below average, occupying the last positions. Thus, in the period 2019-2021 the level of digital skills did not change much, so in 2021 at least 31% had at least basic digital skills (compared to the EU 56%), 35% had basic software skills, while the EU average was 58%, and 10% of Romanians had skills above the basic level (see Table 2). Romanians' digital skills translate into common operations using devices and software applications, but digital competence is defined as an accumulation of knowledge, skills, and attitudes, which help us to use ICT tools safely, to form a critical sense in choosing information sources, and not to overuse them in order not to endanger our physical and mental health.

According to the Frames & Factory 4.0 study, Romania ranks last in the EU in terms of basic and advanced digital skills. Thus, only 1.6% of employees have followed different types of vocational training, in contrast to Sweden 37%, Switzerland 39.4%, even in Bulgaria the percentage was higher than 2.3%, Poland 7.7%, Hungary 7.3% and the EU average being 14.8%. Romania is facing a paradox, it has the best internet connection in the world, a competitive software industry, and in terms of human capital it is at the primary level, so according to the study, 18% of people aged 16-74 have never used the Internet, as opposed to the EU average of 9% (Mazilu, 2021).

Table 2. Romania-EU level of digital competences

	DESI 2019	DESI 2020	DESI 2021	EU DESI 2021
1a1 At least basic digital skills	29%	31%	31%	56%
1a2 Digital skills above elementary level	10%	10%	10%	31%
1a3 At least basic software skills	32%	35%	35%	58%
1b1 ICT specialists	2,2%	2,3%	2,4%	4,3%
1b2 Female ICT specialists	24%	24%	26%	19%
1b3 ICT training companies	5%	6%	6%	20%
1b4 Graduates in ICT	5,6%	5,8%	6,3%	3,9%

Source: European Commission, Digital economy and Society Index (DESI) 2020-2021, data accessible online at https://digital-strategy.ec.europa.eu/en/policies/desi (DESI, 2020; DESI, 2021).

The integration of digital technology into business activities ranks 25th in the EU, so most indicators in this dimension were well below the EU average (electronic exchange of information, social communication platforms, big data, and cloud). In terms of digital public services, Romania ranks last in terms of key indicators such as digital public services for citizens and businesses, e-government service users, and pre-filled forms.

The Romanian government launched in July 2020 a series of projects aimed at meeting various digital priorities that are included in the National Investment and Recovery Plan, with a budget allocation of €100 million from EU and national funds, covering the period 2021-2030. Romania's Recovery and Resilience Plan includes measures that are fully or partially related to digital skills, thus the total budget allocated is approximately €1.267 billion (Vulcan, 2021).

2. Literature Review

The IEA's International Informatics and Education Study (ICILS) 2018, demonstrates the extent to which young people are able to use information and communication technology (ICT) for study, work, and life in a digital world, and using tools and methods this study measures international differences in information and computer literacy (CIL) of adolescents (Fraillon et al., 2019). Drossel et al., 2017, in their study show that the use of new technologies by secondary school teachers for educational purposes is very important in terms of school and teaching processes, and the use of digitization supports learning processes and improves the quality of education (Drossel et al., 2017). Sen Grupa, 2020, highlights the importance of understanding some of the concepts that are used in the field of digitisation and discusses the differences between digitisation, digitalisation, and digital transformation. Digitization is about transforming something non-digital into a digital representation or artifact, digitization improves existing business processes but does not change or transform them, and digital transformation is about transforming the business, possible by digitization, the essence is about changing business processes enabled or forced by digitisation technologies (Sen Gupta, 2020). Botnariuc et al., 2020, conducted a study trying to show the ability of teachers and the education system to adapt from the face-to-face system to the online system (Botnariuc et al., 2020). Diana Graber (2020), digital literacy specialist and creator of Cyber Civics, in her book gives us lots of pragmatic advice and teaches us how to help children have a healthy relationship with technology, is a must read for parents raising their children in the digital age. Kilbey Elizabeth (Kilbey, 2019), a child psychology specialist, draws parents' attention to the risks children face if they overuse electronic devices and gives tips on how to successfully connect with them. Ceobanu et al., 2020, provides a new perspective on learning content by integrating the opportunities provided by new information and communication technologies, and the pandemic health crisis has highlighted the advantages and disadvantages of digital education in different contexts. Cucoș, C. (2020), foreshadows aspects of the future of education over the next two to three decades and outlines a series of lessons from the COVID-19 pandemic. Martin L. Kutsher (Kutsher, 2018), a paediatric neurologist, offers solutions to prevent the negative effects of prolonged screen time, which are manifold: loss of concentration and attention, lack of interest in school, limited creativity, stress, fatigue, obesity due to unhealthy eating and sedentary lifestyles, aggression, lack of control, etc., and urges balance and moderation. Quartz Matrix (QM, 2019), has launched a series of projects for digital education, the ACCED project – Today's child, tomorrow's creator, which supports teacher training for digital education, managing to train and educate 100 teachers from Bucharest and Bihor in the use of the following technologies: interactive whiteboard, ProLang digital language lab, mozaBook educational software, Microsoft 365 or Kahoot app.

3. SWOT Analysis of the Education System in Romania

Strengths	Weaknesses
Free compulsory education; ensures the right to education and provides equal opportunities for all; freedom of expression; experienced teachers; classrooms with modern equipment, fully equipped laboratories; involvement of pupils/students in various national and extracurricular projects; unlimited access to the internet and other programmes; varied educational offer; good results in sports competitions, contests, conferences and Olympiads; merit, study and social scholarships; numerous programmes, projects and partnerships with the community, etc.	Insufficient financial resources in relation to educational needs; unmotivating and unstimulating remuneration for employees; school curricula not adapted to the reality of the labour market; large discrepancies between urban and rural areas (conditions, equipment, qualifications, training); emphasis on theory and very little on practical aspects; monetisation of illegitimate interests in education; assessment based on grades and less on knowledge level; large number of hours spent at school and then at home on homework and too little time for recreational, creative and sporting activities; outdated teaching system, teacher dictates, pupil writes, pupil loses curiosity, motivation and attention; classrooms are not properly equipped (lack of sports halls, old and insufficient technological equipment); lack of motivation to perform increases absenteeism and drop-out rates, etc.
Opportunities	**Threats**
Erasmus and internship programmes; professional and psychological counselling; facilitating distance learning and the hybrid model; attracting funds for improving teaching and assessment methods; emphasis is also placed on other subjects such as financial education, psychological education, sports, nutrition, personal development, etc.; maintaining a state of discipline and security for pupils; good school-primary-community-business collaboration; opportunities and access to education for minority groups and certain disadvantaged groups; extending the use of modern teaching and seminar methods and enriching the existing book stock in libraries; organising competitions, conferences both nationally and internationally, etc.	Migration of well-trained teachers to centres; educational centres, both nationally and internationally; international; reducing the birth rate; funding through local budgets do not cover all the expenses necessary for a efficient education system; lack of qualified staff which forcing the system to employ poorly trained staff, more especially in rural areas; education is dominated by ideologies political parties; lack of accountability, solidarity and optimism; students are not prepared for life but for doing to face exams; our education system provokes stress and dissatisfaction on the part of all actors involved in education; due to low and unmotivated salaries, the quality the quality of teaching leaves something to be desired; teachers are not respected and they are not respected at their true value and then they are not 100% committed in the educational process; instability and ambiguity the legislative system; lack of investment in infrastructure and technical and technological means; corruption and bureaucracy, etc.

We note that in this analysis we have captured the most important aspects of the education system, but there are certainly many more.

4. Research Methodology

In order to identify possible problems faced by the students of the Bucharest University of Economic Studies during the period March 2020 - March 2022, when the educational activities were conducted online, we conducted a questionnaire in Google Forms and distributed through the institutional addresses. The research hypothesis: can we keep online activity in learning/teaching and assessment practice, to what extent, at what cost and with what return?

The sample consists of 269 respondents/students and the questionnaire consists of 15 questions, these are of several types: closed-ended questions, open-ended questions, opinion, introductory questions and rating scale questions using a response matrix (Vulcan, 2021). Following the grouping of the survey data, we conducted a horizontal and vertical analysis of the responses. The horizontal analysis involves the independent presentation of responses to each question, while the vertical analysis aims to correlate responses and identify statistical links and associations between the characteristics recorded. The procedure is quantitative and involves presenting the instructions that subjects received. The questionnaire includes an introductory letter containing a series of information about the purpose and social significance of the research, the guarantee of confidentiality of the answers, and explanations of how to respond. At the beginning of the questionnaire, several questions are inserted providing information on gender, age, and residence and form of education.

5. Research Results

The sample consists of 269 students, of which 95.2% are students in the full-time bachelor programme and 4.8% in the full-time master programme. The vast majority of respondents, 94.1%, are aged 18-24, 4.1% are aged 25-35, and 1.9% are aged 36-45. The female part accounted for 67.7% of the respondents and the male part for 32.2%. During the pandemic, 68% lived in urban areas, 30.1% in rural areas, and 1.9% outside the country.

In order to find out to what extent certain aspects of the teaching/learning/ assessment process affected the respondents, to the question, *"What affected you in the teaching/learning/assessment process during the pandemic period?",* we used the Likert (1932) scale calculation method (not at all score 1, to a small extent score 2, to a medium extent score 3 and to a large extent score 4), and obtained the following results:

My insufficient level of digital skills: 1x176+2x66+3x22+4x5/269=1,46
Limited Internet access: 1x180+2x54+3x24+4x11/269=1,5
Lack of motivation: 1x106+2x63+3x63+4x37/269=2,10
Focus of attention: 1x91+2x68+3x57+4x53/269=2,26

Lack of courage to ask questions: 1x128+2x59+3x45+4x37/269=1,96
Lack of a well-structured programme: 1x115+2x55+3x54+4x45/269=2,11
Lack of habit of using new technologies: 1x191+2x49+3x14+4x15/269=1,45
Stress/depression/anxiety: 1x130+2x49+3x42+4x48/269= 2,03

From the results, we can deduce that the respondents were largely affected by the ability to focus on an objective and to pay attention to teaching new concepts or to completing tasks, then by the lack of a well-structured programme due to uncertainty and the pandemic context, lack of motivation coupled with lack of attention and time management, then the onset of anxiety, depression, and stress which increased dissatisfaction and dissatisfaction in the teaching/learning process, leading to poor results in the evaluation process. However, in the last places were the aspects related to internet connection and the ability to use technology and acquire digital skills, which shows us that the respondents have managed to adapt to the new requirements and to the way of relating through online platforms, especially the ase.ro platform.

To analyse the responses to the question, *"What will help the teaching/learning/ assessment process during the pandemic?"*, we used the same Likert (1932) scale (no score 1, low score 2, medium score 3 and high score 4) to determine to what extent the aspects listed below helped students in the teaching, learning, and assessment process. The results are as follows:

Lecture and seminar materials: 1x5+2x14+3x69+4x181/269=3,58
Videos/audio materials/posters: 1x10+2x35+3x75+4x18/269=3,35
Teacher explanations and guidance: 1x8+2x20+3x75+4x166/269=3,48
Exercises and case studies: 1x8+2x29+3x85+4x147/269=3,38
Homework check: 1x27+2x53+3x84+4x105/269=2,99
Peers' ideas and guidance: 1x31+2x42+3x92+4x104/269=3,0
Various tutorials found online: 1x16+2x55+3x75+4x123/269=3,13
Tests given during the semester: 1x27+2x58+3x89+4x95/269=2,94

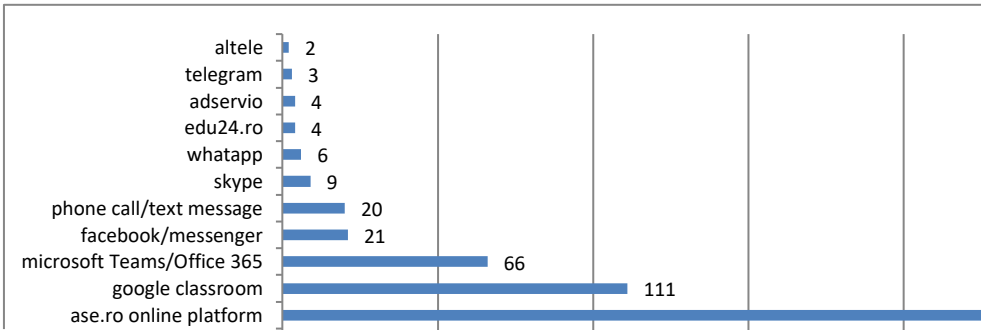
Analysing the results we can say that the respondents appreciated, as an aid, first of all the lecture and seminar materials accompanied obviously by the teachers' explanations and guidance, as well as the exercises and case studies in the seminars, then the videos/audio materials as well as a number of tutorials found online, and to a lesser extent the ideas and guidance of peers as well as the checking of homework, which was to be expected given that the pandemic affected interpersonal relationships and especially among first year students, as they did not have the opportunity to meet face to face and have a social connection.

To the question, *"What does the digitisation of education mean?"* , 56.4% of the respondents answered, more than half of them failed to give a clear definition of digitisation, i.e., they tried to stress the importance of posting teaching materials on the online platform ase.ro, and others answered: it is an evolution, a progress, it gives the possibility to learn anywhere/anytime, the use of electronic means and

digital technology, a new way to receive information, information can be accessed anytime, etc.

The most used online applications were: zoom (99.6%), online platform.ase.ro (91.8%), Google Classroom (41.3%), Microsoft Teams/Office 365 (24.5%), Facebook/Messenger (7.8%), Whatsapp (2.2%), Skype (3.3%), and others but in very small proportions (see Figure 2). We can see that the online.ase.ro platform was used by 91.8% of the respondents, who appreciated how easy the platform is to access and use, both in the teaching and seminar process.

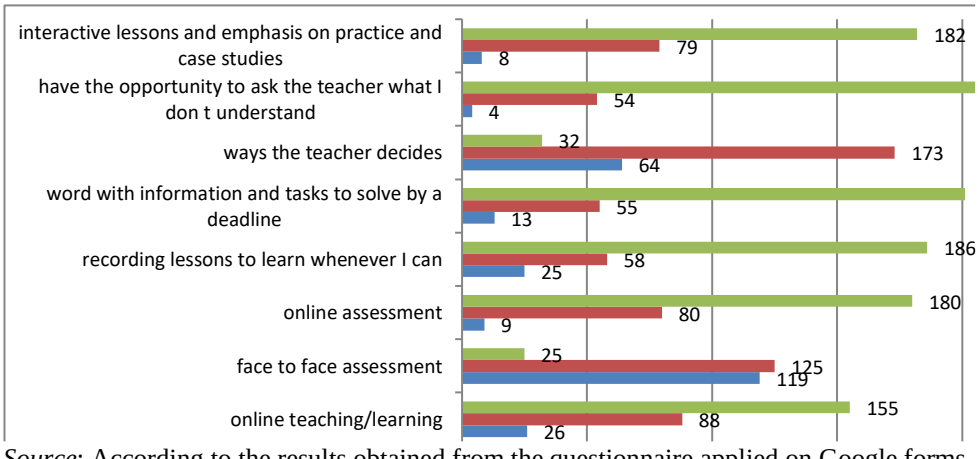
Figure 2. Applications used for online learning activity in times of pandemic



Source: According to the results obtained from the questionnaire applied on Google forms https://docs.google.com/forms/d/1CJ8KxsQI67OxbygbAq_6CXDIVIlI7FH8EqVUCiTeolo/edit.

To the question, "What are the most appropriate ways of teaching/learning/ assessment after two years of testing other ways of conducting educational activities?", the results are captured in Figure 3.

Figure 3. The most appropriate ways of learning, teaching and assessment after testing online learning activities



Source: According to the results obtained from the questionnaire applied on Google forms https://docs.google.com/forms/d/1CJ8KxsQI67OxbygbAq_6CXDIVIlI7FH8EqVUCiTeolo/edit.

Based on the results, we can see that the respondents, after testing the online learning, rated the online teaching/learning in a high proportion of 90.4% (suitable + very suitable) and the online assessment in a proportion of 96.6% (suitable + very suitable), compared to the face-to-face teaching/learning system of 68.4% (suitable + very suitable) and 55.8% for face-to-face assessment, respectively. Obviously, they also appreciated other ways of conducting educational activities, namely: being able to ask the teacher where they do not understand or where there are unclear points, materials with information and tasks to solve by a deadline, recording lessons so they can listen and learn at any time, appreciating interactive lessons and case studies that focus on practice.

The teaching activities carried out online were appreciated as interesting and useful in a proportion of 80.7% and 10.4% considered that they were uninteresting and tiring, and the remaining 8.9% did not know how to appreciate. It is quite clear that the students have adapted to the online teaching activities, managing to appreciate them in a fairly large proportion after two years.

To the question, "*What are the advantages of online learning?*", respondents answered: saving money on transport/gas passes and waiting time; no more time wasted on the road, breaks from college, travel time from college to home; attendance at courses and seminars increased because even those who could not get to college for various reasons would turn on their phone or computer; can record lectures and seminars and re-read/review whenever needed; greater availability and convenience; ability to be present regardless of location, no formal setting; gave us the opportunity to get a job, and now we had to quit for a 2 month physical system; the lessons were held in our comfort zone which allowed us to understand certain notions much better; lack of anxiety and social embarrassment; possibility to have all lessons in online format; an advantage for those who live in areas bordering Bucharest, having to travel more than 2 hours on the road; low costs both for school supplies and for clothing, shoes and services; the possibility to protect oneself and be safe from contracting COVID-19; more free time for personal development and individual study; saving money and stress; increased courage to ask questions and say what is not understood; test and exam results are given immediately via the online platform ase.ro; no need to print out projects and lectures on dozens of pages, avoid wasting paper; forced to adapt on the fly to new technology and new methods of presentation and assessment; lower rent/housing costs; possibility to learn and work at the same time; more effective learning by seeing and hearing very well, time needed to write down certain observations, no longer matters where in the classroom in relation to the board; information can be accessed at any time, assignments have clear teaching dates, online platform ase.ro is very useful and it would be a shame not to use it anymore; no more having to decipher handwriting on the board if it is not clear or the kite is very poor; if you have a cold you can attend from home without having to catch up or take lessons from colleagues; convenience, accessibility, flexibility; hybrid system would be most effective, online courses and physical seminars, etc.

To the question, *"What are the disadvantages of the teaching/learning/ assessment system*?", respondents indicated: lack of motivation, concentration, attention, connection, and interest; in some areas especially in rural areas the Internet connection is unstable and weak; not all students have unlimited access to the internet; not everyone has access to a computer and high-performance technical means; poor digital literacy both on the part teachers as well as students; spending a large number of hours in front of the computer computer/phone/laptop and at home; lack of socialisation, communication and interpersonal contact; inadequate assessment; lack of communication and interaction leads to depression, anxiety and isolation; being in your comfort zone can be distracting for lack of courage to ask questions and the teacher's inability to read on the student's face if he or she has understood or not understood; there are no disadvantages, etc. More than 40% of the respondents answered that they do not find any disadvantage in the online learning system and did not answer this question.

To the question, "*Would it be useful for online learning to remain part of educational practice?",* 94.4% of respondents answered that it would be useful for online learning to remain part of educational practice after face-to-face return, and only 5.6% answered that it would not be useful. In this respect, respondents were asked to give reasons for their choice, and those who answered yes, overwhelmingly repeated the points made under the advantages of online learning, while the proportion of those who answered no was quite small and almost insignificant. From the total number of respondents' answers, we have selected a few answers that reinforce the relevance of online education: even if we came back face to face, the online environment should be frunctified more, especially in terms of posting teaching materials/lessons, lectures and seminars; lectures can be recorded and saved on a platform where they can be accessed at any time, especially by students who did not make it to class for various reasons; lectures should be held online because we understand, see and hear much better when each of us has them in front of our eyes, than when they are posted on the screen, and everyone's position is different from the blackboard/screen; it is useful that online learning remains part of educational practice, as it is an evolved, modern, current and future-proof way of learning and training on the professional side and reduces downtime, breaks, windows, commuting to college; face-to-face activities are much more tiring and demanding; time is the biggest advantage, it reduces pollution, it reduces costs, there are students with certain problems to whom the online system brings benefits; online learning could remain an alternative for those who cannot reach physically; it is efficient for those who do not live in Bucharest because they do not have to pay rent, transport, meals, etc. ; it creates an advantage for those who have a job; since we don't have practical subjects, I think it would be advisable to do online; online activities have taught us to look for information on our own, whoever wants to learn can learn in any learning system, be it physical or online; online learning gives us freedom and the possibility to take responsibility; it helps us to acquire digital skills; it is effective in crisis situations; online learning is revolutionary and much more effective than traditional learning; it is a step forward

on the ladder of evolution in education; because materials are electronic, students pay more attention to what the teacher is explaining and do not waste time on notes; it allows us to access information from anywhere; I prefer to keep classes online because it is much easier for me to hear the teacher, to see on the screen and to shere screen so I can view when I want; it is effective in crisis situations and for this reason it would be desirable not to abandon this system for good.

The last question was to propose solutions to improve the teaching/learning/ assessment system, and respondents indicated the following: educational activity to be kept online, or in the best case hybrid, online courses and physical seminars; a friendlier and more accommodating attitude of teachers toward students; interactive and more practical lessons; recording lessons and putting them on the online platform ase.ro and not to abandon this practice; further posting of materials; the problem would be solved if we had online lectures and seminars and physical exams, I think it would increase the level of engagement and seriousness; experiential learning by creating interactive and engaging/interesting materials as well as learning through case studies, assessment through quizzes; focus on the ability to work with an information, not on the ability to memorize and render; I prefer the online mode of assessment as I am a more panicky nature and it was much better for me to take exams in a relaxed and enjoyable environment; teachers to speak in a way that everyone understands and use accessible language; exam topics to be in line with the difficulty of the exercises worked on in class; face-to-face classes with the possibility for those who cannot get face-to-face to enter either online or for lectures/seminars or lectures to be recorded etc. A significant proportion of respondents supported the return to the online system considering it to be an advantage from all points of view, hearing, seeing, understanding, repetition, etc.

6. Conclusions

With economic development, people have been satisfying their needs at an increasingly high level, both in terms of quantity and quality, and in this respect, in recent decades, an important role in increasing efficiency and economic performance has been played by digital technology, which combines the process of digitisation with that of digitalisation. The integration of digital technology into business has given a positive impetus to competitiveness and quick access to a range of databases and information, and the digitisation process improves work efficiency and productivity and provides better insight for decision-making.

Romania faces a paradox, it has the best internet connection in the world, a competitive software industry, it is close to the European average in terms of high-speed broadband and 4G and 5G coverage, but it is at the bottom of the EU ranking in terms of DESI, so of the four DESI factors, only connectivity ranks 10th, while human capital ranks 26th, digital technology integration ranks 25th, and digital public services ranks last.

Digitisation is an important step of the present moment, but it does not solve all the problems, especially in the education system. The sudden shift from face-to-

face to online system has forced us to adapt to new learning/teaching and assessment methods and techniques, which we initially found quite difficult to accept, and now, two years later, we are thinking about whether this system should be integrated into the classical educational system, as it could benefit both sides, students/pupils, and teachers.

We conducted a questionnaire on a sample of 269 respondents, most of whom are students in the full-time undergraduate program at the Academy of Economic Studies in Bucharest, aged between 18 and 24 years, predominantly female, and 70% of whom lived in urban areas during the pandemic. The aim of this questionnaire was to identify the following aspects: What were the most important issues they faced in the period March 2020 - March 2022 in terms of educational activities (teaching/assessment) carried out online; what were the most important aspects that helped them in the online teaching/learning/assessment process; what applications they used during the pandemic period and how much it helped them in this process; to identify the advantages and disadvantages of the online educational process; to appreciate and place the teaching activities carried out online in the current context; to make proposals and recommendations in order to make the teaching/learning/assessment process more efficient.

During the pandemic period (March 2020 - March 2022), students faced problems related to attention, motivation, time management, communication, anxiety, depression, stress, and less problems related to digital skills and internet connection, which shows us once again the high degree of connectivity in Romania and the ability of the new generations to access and use technology. What helped them during the pandemic period were the course materials and seminars posted on the ase.ro platform, the explanations and guidance of teachers, the applications and case studies solved together with teachers on the zoom platform, the teachers' recommendations in terms of viewing tutorials and audio and video materials online, the tests given during the semester as well as checking homework, etc. The online platform.ase.ro was used in a proportion of 91.8%, being appreciated as easy to use and accessible both in the teaching and assessment process.

The students saw several advantages and a few disadvantages of conducting teaching activities online, with 94.4% saying that it would be useful for online learning to remain part of educational practice. Working online brings a number of advantages, lower costs in terms of accommodation, food, clothing, transport, but also ensuring some comfort and safety. Obviously, they also found strengths of the face-to-face system, and these relate to the interpersonal side, communication, socialising, understanding, focusing, attention, and concentration.

The proposal is to maintain a hybrid system, where courses are held online and seminars are held face-to-face, with the possibility for those who have health problems to come online or both courses and seminars are held both physically and online, so that those who cannot come physically for various reasons can connect online. The online platform.ase.ro is an important source of transmission of teaching materials and testing/assessment along the way, and it would be advisable to exploit it, improve it, and why not direct it towards a digital era.

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