

THE DIGITALIZATION OF SOCIETY IN THE CONTEXT OF THE SARS-COV2 PANDEMIC

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Abstract:

The current pandemic generated by the SARS-COV2 virus demonstrates the importance of society digitalization. Nowadays, the area of digitalization is an essential pillar in the structure of society. If before the introduction of the restrictive measures the governments were considering the transition to electronic communication and had taken some steps towards it, at the current moment the transformation has been accelerated. The members of the European Union have taken measures on digital infrastructure and services in order to deal with the pandemic crisis, Romania included. The significant measures taken in our country were establishing a new institution, called the Authority for the Digitalization of Romania, creating online platforms through which taxpayers have the opportunity to submit documents to public institutions and updating websites in order to provide clear and transparent information. Paradoxically, the pandemic seems a moment of reset that forces the whole society to get out of the comfort zone, to find solutions and to adapt to the digital transformation of almost every aspect of life. This article highlights the place of our country in the "digital age" within the European Union, the measures taken in order to deal with the crisis, as well as future digital field prospects..

Keywords: *pandemic, digitalization, electronic communication, society, digital transformation*

JEL classification: *D73, H12, G38*

1. Introduction

Digitization is the process of converting analog information into a digital format. It is the social and economic transformation, promoted by the massive adoption of digital technologies to generate and process information. In the recent years, technological gains have been the basis for proportional achievements in health and daily life.

The digital society and the digital economy are now a new reality with the accelerated development of technology, which has forced citizens, institutions and companies to adapt to this phenomenon by acquiring the digital skills essential for professional success. Digital technology is a huge potential, still untapped to the maximum, to improve the development of the public and entrepreneurial system.

Digitization has a profound impact on the labor market and the business environment, a phenomenon that produces positive effects for competitiveness, by increasing productivity and reducing costs, but also has a remarkable impact on the creation and disappearance of certain jobs.

In this article, aspects related to the place of digital services in our country at the level of the European Union and future perspectives in this field were observed and analyzed, using information and data provided by both European and national institutions. It was highlighted that our country has a bad ranking regarding the level of digital skills owned by the population, which will make it difficult to switch to digitalization, which will not be 100% accessible to us in the near future.

At the same time, specific measures are taken by each sector of society, such as the public sector or the banking sector, sectors that planned to switch to digital correspondence

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for efficiency and cost reduction, and which the restrictions imposed by the authorities have forced to adopt an accelerated and unexpected pace of transition.

2. Literature review

Anghel Monica and Neagoe Andrei (2015) through the article “The level of digitalization of e-government in Romania” conducted a research on the issue of digitalization of public services from the perspective of the population and representatives of public institutions. The research was conducted by the method of the questionnaire on a sample of 54 people concluding that the digitization process is difficult both from the point of view of the citizen and public institutions.

Roja A. (2018) through the article “Digital transformation - challenge, risk or opportunity” published in the journal Research and education, analyzed the most important trends in digital transformation and the effects that this phenomenon brings in different fields. He stated that “the digital transformation has led to an increase in the quality of life, even to an increase in life expectancy, by treating some diseases. At the same time, it has contributed to the emergence of new social and economic models, as well as to the development of new opportunities in various fields. The phenomenon remains very exciting in the future, but this combination between biological, digital and the surrounding reality, without a visionary leadership, will turn opportunities into risks”.

3. Romania's place in the digitization process

Digitization has the potential to provide solutions to many of the challenges the world is facing. Digital technologies are not only changing the way people communicate, but also, more generally, the way they live and work.

The year 2020 has been and is a real challenge for all mankind, affecting all markets globally, together with consumers and businesses.

In the last year, all EU member states have improved their digital performance. Finland, Sweden, Denmark and the Netherlands have the highest ratings in DESI 2020 (an indicator that monitors global digital performance in Europe) and are among the world leaders in digitization, joined by countries such as Malta, Ireland and Estonia. However, other countries still have a long way to go, including our country, which in 2020, as in previous years, ranks 26th out of 28 in the Digital Economy and Society Index (DESI).

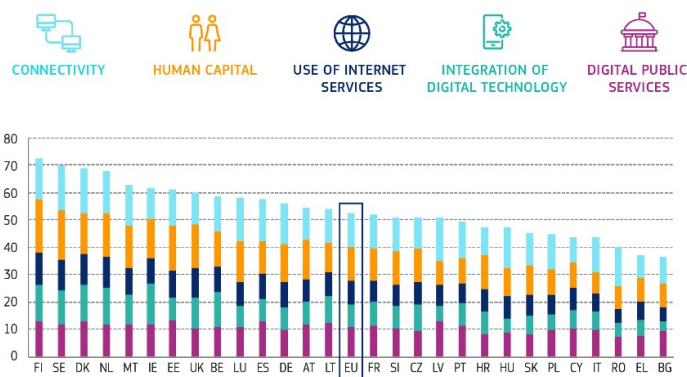


Figure no. 1 - Position of EU countries regarding the DESI indicator

Source: <https://ec.europa.eu>

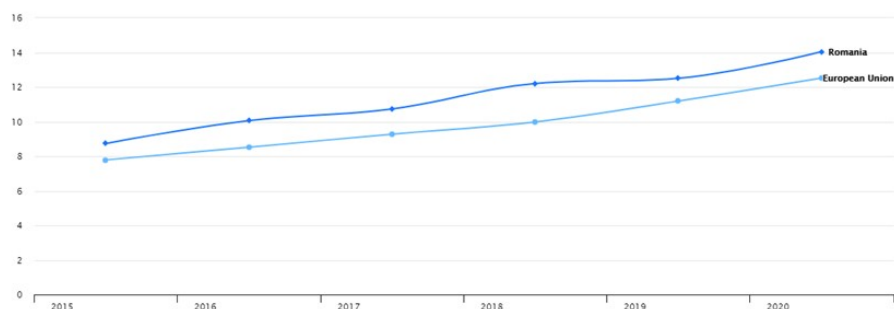


Figure no. 2 - Evolution of the DESI - Romania indicator compared to the European Union average

Source: <https://ec.europa.eu>

This DESI indicator has the following structure:

- Connectivity = coverage,
- Human capital = skills of internet users,
- Use of internet services = use of these services by citizens,
- Integration of digital technology = business digitization and e-commerce,
- Digital public services = digital services of public institutions.

In terms of connectivity, Romania ranks 11th in the European Union, improving its results in this regard, but not enough to be able to stay in the position held in 2019, respectively 8, unable to keep up with other countries. Thus, our country obtained a score of 56.2, above the European Union average of 50.1, a chapter in which it performed well in previous years.

1 Conectivitate	România		UE
	loc	punctaj	punctaj
DESI 2020	11	56,2	50,1
DESI 2019	8	50,0	44,7
DESI 2018	6	48,8	39,9

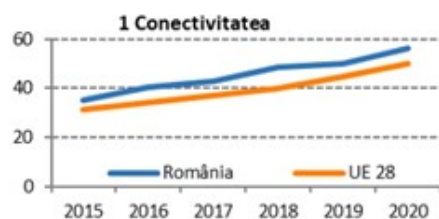


Figure no. 3 - Evolution of connectivity level - Romania compared to the European Union average

Source: <https://ec.europa.eu>

The backbone of the digital society is digital competence, which is essential in carrying out the activity in most jobs. Regarding the level of digital skills, in the EU ranking Romania is on the penultimate place, stagnating as in the previous year, obtaining a score of 33.2, below the European Union average of 49.3.

Romania holds a place at the end of the ranking at EU level, being penultimate in terms of basic skills (31% of the population / 58% EU average), penultimate in the number of ICT (information and communications technology) specialists (2.2% / 3, 9% EU average), but compensates in terms of ICT graduates, ranking 5th (5.6% / 3.6% EU average), after countries such as Malta, Estonia, Ireland and Finland.

2 Capital uman	România		UE
	loc	punctaj	punctaj
DESI 2020	27	33,2	49,3
DESI 2019	27	31,1	47,9
DESI 2018	28	31,5	47,6



Figure no. 4 - Evolution of human capital level - Romania compared to the European Union average

Source: <https://ec.europa.eu>

The indicator of the use of internet services measures how many people use the internet and what is the consumption of online content (music portals, socializing, movies, games, etc.). Romania is at the bottom of the EU ranking in terms of the use of internet services, which corresponds to the lowest level of basic digital skills. While 18% of people have never used these services, in terms of using social networks, it ranks 6th, with 82%, compared to the EU average of 65%.

3 Utilizarea serviciilor de internet	România		UE
	loc	punctaj	punctaj
DESI 2020	28	35,9	58,0
DESI 2019	28	35,0	55,0
DESI 2018	28	31,5	51,8

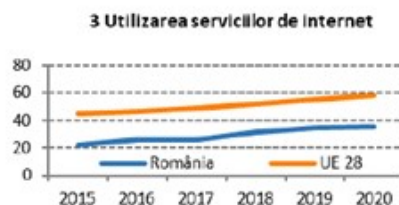


Figure no. 5 - The evolution of the level of use of internet services - Romania compared to the European Union average

Source: <https://ec.europa.eu>

The digital transformation of business opens up new opportunities and brings competitive advantages, such as expanding into new and distant markets. The Digital Technology Integration Indicator measures business digitalisation and e-commerce.

The level of integration of digital technology by enterprises in our country is well below the European Union average (score of 41.4), positioning us on the 27th place (with a score of 24.9), a place that remained unchanged, as in previous years. Romanian companies exchange 23% of information and only 11% sell products through e-commerce (compared to the EU average of 18%).

4 Integrarea tehnologiei digitale	România		UE
	loc	punctaj	punctaj
DESI 2020	27	24,9	41,4
DESI 2019	27	21,3	39,8
DESI 2018	27	20,8	37,8

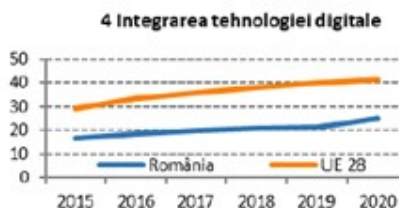


Figure no. 6 - The evolution of the integration of digital technology - Romania compared to the European Union average

Source: <https://ec.europa.eu>

Also, at the end of the ranking we are at the digital public services, a place that Romania has occupied in recent years. The interaction between the public authority and the population regarding the submission of forms is made through the platform www.e-guvernare.ro chapter in which our country ranked 8th in the EU, with 82% of Internet users, compared to the EU

average of 67%. Pre-filled forms and services made entirely online rank us last in the European Union, indicating a systemic problem in terms of quality and ability to use the services offered. Compared to previous years, there was no improvement in digital public services for businesses, with a score of 53, compared to the EU average of 88.

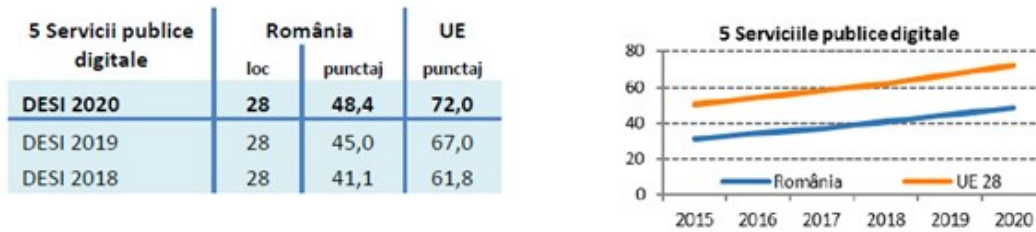


Figure no. 7 - The evolution of digital public services - Romania compared to the European Union average

Source: <https://ec.europa.eu>

Thus, Romania's performance was identical as in previous years in four of the five dimensions of DESI measured, a situation caused by slow progress in general, but probably also by political developments, as in the last three years there have been four different governments. Romania's digitalization is lagging behind, given that 18% of the country's population have never used the Internet, only 31% have at least basic digital skills and 11% of Internet users use banking services, and in terms of digital public services we have the lower performance among EU Member States.

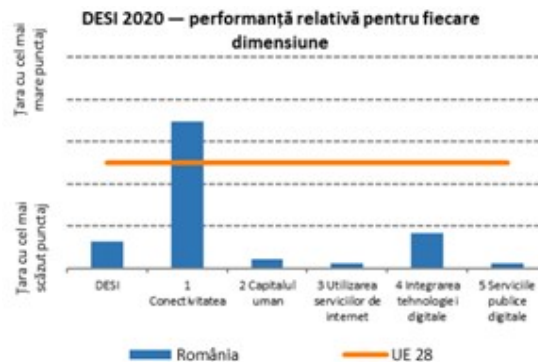


Figure no. 8 - Evolution of the DESI - Romania indicator compared to the European Union average

Source: <https://ec.europa.eu>

4. The "digital age" during the SARS COV2 pandemic

The SARS-COV 2 pandemic has shown us and shows us how important digitalization is, the crisis has shown that the right digital skills that allow citizens access to information and services are crucial for the whole world, being essential to the smooth running of all activities.

In the fight against the new Coronavirus, digital skills are necessary and essential for both public employees and the population, taxpayers, students, emphasizing the importance of connecting and interacting between citizens, businesses, public institutions.

Thus, due to circumstances, digital technology has been available and widely used in all sectors of the economy, at the level of all countries in the European Union, looking for and finding solutions, such as: the public and private sector have implemented the transmission of documents remotely and work from home, the education system takes place in the online environment, technological investments have been made in public health services, a vital

sector in such times, and businesses have moved their marketing activity, providing services in the online environment.

At the level of our country, in the year 2020, during the pandemic, certain measures specific to the digital field were adopted in order to face the restrictions, among which we mention:

- ✚ Regulations were adopted in the electronic communications and digitalization sector, which established a new body, the Romanian Digitization Authority (ADR), with the role of realizing and coordinating the implementation of public strategies and policies in the field of digital transformation and information society, according to the Government Decision no. 89/2020. At the same time, the Ministry of Transport and the Ministry of Communications and Information Society were abolished and a new entity was created, the Ministry of Transport, Infrastructure and Communications, which will have responsibilities for developing policies in the field of electronic communications and implementing policies related to electronic communications infrastructure, according to the provisions of Government Decision no. 90/2020. Based on a government decision, it was decided to supplement the budget of the Ministry of Education for the purchase of laptops for pupils, students in order to ensure access to online learning activities;

- ✚ An application has been created in the health system through which medical data on the management of the situation caused by this virus are centralized;

- ✚ The online platform <https://aici.gov.ro/> was created, which serves as an intermediary for the registration of documents addressed to public institutions that do not have their own online registration system, so all public institutions in Romania are obliged to accept electronically signed documents and to respond to the requests submitted by citizens also in electronic format;

- ✚ In terms of providing clear information, increasing transparency, reducing panic, combating misinformation, explaining risks and preventive measures, online platforms have been created through which public authorities help people understand and cope with this period, including: <https://stirioficial.ro/>, <https://datelazi.ro/>, https://fiipregatit.ro, <https://cetrebuiasafac.ro/>;

- ✚ The public authorities came to the aid of Romanian citizens from outside Romania by creating the Diaspora Hub platform (<https://diasporahub.ro/>), where information is available on either the delivery of purchases, or support in translating documents, useful information in this period etc;

- ✚ Online platforms have been created to offer aid for the health field (<https://www.ajutorspitale.ro>, <https://spitale.quickdata.ro>);

- ✚ Banking institutions were preoccupied with digitization before this pandemic, but in 2020 they also migrated to the online space, in a much faster process than normally expected. It was avoided as much as possible the physical presence of customers in banks, these institutions implementing the option of requesting by the customer information, data, services, products through their own sites, and also their transmission to customers' homes through couriers. For example: if in the past it was necessary to pick up a debit/credit card by the customer from the bank's headquarters, they adopted the measure of sending the cards by courier.

Thus, banking institutions, through the online environment, have further promoted their banking products and services, have adopted work from home, have adapted websites for requesting, signing and submitting documents by customers, all to protect both employees as well as customers.

The pandemic caused by the new coronavirus has triggered a mass migration to the area of online and commercial companies, taking measures such as:

- ✚ Employees working from home and maintaining interaction through online platforms and social networks;

- ✚ Creating, promoting and selling goods and services through online platforms,
- ✚ Interaction with potential customers and suppliers through video conferencing,
- ✚ Dematerialization and 100% digital workflow in companies, such as documents created - signed - transmitted - archived in electronic format.

5. Conclusions and future perspectives

The global crisis caused by the SARS-COV2 virus will definitely affect the way the world will function and evolve in the future.

Both the public and private sectors have deeply felt the effects of the restrictions, with technology proving, in the current context, to be the main tool for responding to crisis situations, supporting the development and continuity of individuals' work. Thus, changes will be felt and strategies will be rethought for an optimal functioning and to respond as well as possible to the needs of the population, which is slowly changing due to the impact of COVID-19 on the way of thinking and approaching things.

Romania is at the bottom of the European Union ranking in terms of digitalization, but with the coronavirus pandemic we hope to be the beginning of a new era, namely the acceleration of the maturity of digital technology.

Interest in technology and the implementation of new technologies worldwide can increase significantly now, but also in the post-COVID-19 period, due to the benefits they bring both individually and in business.

The future prospects for both the public and private sectors could be:

- ✚ financial support of digital transformation projects of companies from all sectors of the economy by granting grants and loans by the banking and/or public sector.

- ✚ offering flexible vouchers, subsidies or tax credits for digital investments, so that companies have the ability to find solutions based on their individual needs;

- ✚ the implementation by the banking institutions of the videobanking concept, an interaction between a bank representative and the client through a platform, in order to confirm the identity of the latter and to avoid possible fraud attempts;

- ✚ ensuring technological investments regarding public health services. The current health crisis demonstrates an unprecedented need for modernization and digitization through new technologies to prevent the collapse of medical systems globally. At the same time, against the background of the crisis generated by COVID-19, there was a divergence of policies and protocols in the field of health from city to city, which shows the need for an approach based on collaboration and exchange of information at the international level.

- ✚ the process of digitalization and automation of the Romanian economy will also depend on the way in which the authorities will implement the reforms in the public sector. Elimination of the physical file and implementation of the digital file both for citizens and for societies at the level of all the entire public apparatus. Implementation of the electronic platform of the online invoicing system through which companies can issue and receive documents but also the possibility to verify the concordances with the partners.

- ✚ implementation of digital identity and digital unique code.

Statistics show that each government has its own pace of digitization depending on financial resources, but especially on the education of the population. Public authorities are constrained by the circumstances to adopt an accelerated pace of digitization and to provide citizens with efficient electronic services, without being able to directly benefit from the benefits of changing the mode of operation, as well as the possibility of avoiding the disadvantages of this change. they an obligation.

Romania is not in a leading place in the ranking of European Union countries in terms of digitization, but the efforts made to better control the situation in which we all find ourselves are visible.

As for private companies, they adapt in their own way to the pandemic, by introducing protection measures that are suitable for the specific field of activity. Unlike public authorities, they make the most of the benefits of this transformation and try to minimize the disadvantages, all to increase profitability, but also to maintain a good level of health among employees.

Crisis situations have been and will continue to exist, but the transition of our daily life in the online environment will be further accentuated, representing the normal course of the society in which we live. Electronic services will become essential for the efficient functioning of both public authorities and companies of all sizes, requiring concrete plans for the development of digitalization until its implementation at all levels. There will be changes in the way we carry out our activity, trades will disappear, new ones will appear, but society will continue to live by adapting to the new normal.

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