

DIGITALIZATION IN EUROPE

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Abstract: *The paper presents some aspects about digitalization in Europe taking into consideration the new pandemic context. Several indicators linked to the topic were chosen for the purpose of this study. The indicators refer to households – level of internet access, individuals' level of digital skills, employed persons working from home as a percentage of total employment and E-government activities of individuals via websites. The information was analysed with statistical indicators. The result shows that not all the countries of the European Union are prepared to adapt to that new situation.*

Key words: *digital skills, internet access, E-government.*

1. Introduction

The pandemic situation changes a lot of people's habits. Most of the persons from all over the world have to adapt to the new conditions. The new situations require new skills for many persons. Thus, digital skills became very important as well as access to online information and the possibility to solve problems from home.

The paper uses information from Eurostat database as well as from Eurostat regional yearbook – 2020 edition. Statistical methods were used in order to analyse the evolution of some relevant aspects which can provide us with an image of the situation and of how the countries are prepared for the new conditions.

2. Results

An important statistical indicator referring to digital economy and society is households – level of internet access expressed in percentage of households.

At the European Union 27 countries level, during the last ten years this indicator's evolution is presented in Figure 1.

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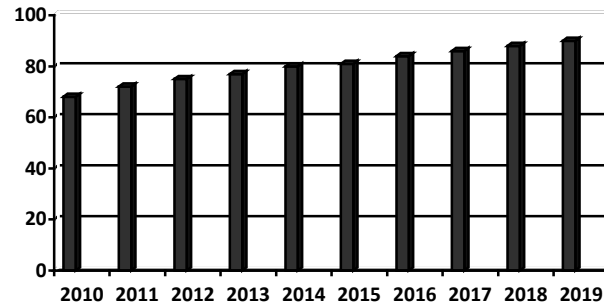


Fig. 1. *EU: Households – level of internet access*

Data source: http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-053754_QID_-713418EC_UID

In the European Union 27 countries during the entire analysed period 2010-2019 the indicator “households-level of internet access” increased every year from 68 percentage of households in 2010 to 90 percentage in 2019. The lowest levels were registered in Bulgaria with 75%, Greece, 79%, Portugal and Croatia with 81%, Slovakia and Lithuania with 82%. The highest levels were found in Netherlands with 98%, followed by Luxembourg, Denmark and Germany with 95%.

The highest increase was in 2012 in comparison with the previous year 2011, by 4,17%, followed by 2014 in comparison with 2013, an increase by 3,9%. During the entire period in 2019 in comparison with the base year 2010 the percentage of households with access to internet increase by 32,35%. On average, each year the access to internet increased by 3,16%.

In Romania, in the same period, the evolution of the indicator is presented in Figure 2:

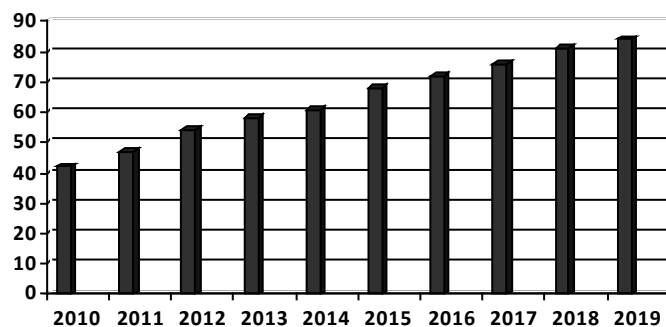


Fig. 2. *Romania: Households – level of internet access*

In Romania, in the same period, the percentage of households with access to internet has the same evolution like in the European Union. The indicator increases every year from 42% in 2010 to 84% in 2019. The highest increase was in 2012 in comparison with

the previous year 2011, by 14,89%, followed by 2015 in comparison with 2014, with an increase by 11,47%. On average, every year, the percentage of households with access to internet increased by 8%.

Having access to internet is not enough. The number of persons with digital skills is important. For that, an indicator was analysed: Individuals' level of digital skills expressed in percentage of individuals, meaning the individuals who have basic or above basic overall digital skills.

At the European Union 27 countries level, during the last five years this indicator's evolution is presented in Figure 3.

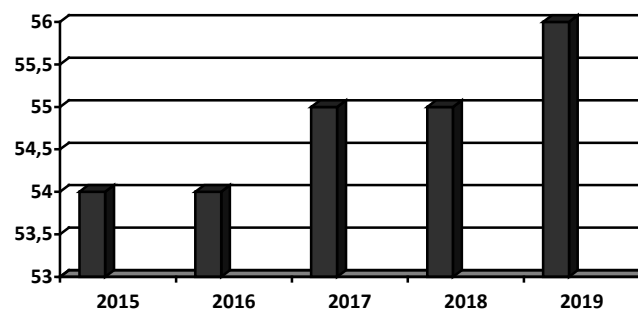


Fig. 3. EU: Individuals who have basic or above basic overall digital skills

Data source: http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_

In the European Union the percentage of individuals who have basic or above basic overall digital skills increase almost every year, but not so much, from 54% in 2015 to 56% in 2019 meaning by 3.7%. On average, every year the percentage of individuals increased by 0.9%. The lowest level of individuals' level of digital skills is in Bulgaria with 29%. The highest levels are in Denmark and Germany with 70% as well as in Finland with 76% and Netherlands with 79%.

In Romania, in the same period, the evolution of the indicator is presented in Figure 4:

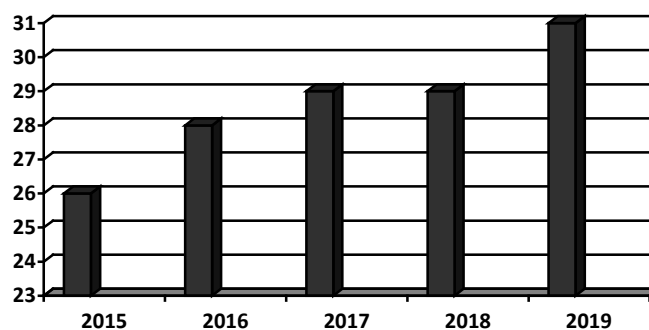


Fig. 4. Romania: Individuals who have basic or above basic overall digital skills

In Romania the individuals' level of digital skills has the same increasing evolution but much more accelerate from 24% in 2015 to 31% in 2019, meaning an increase by 19.23%. During the entire period, each year, the indicator increased, on average, with 4.5%

Another important indicator regarding digitalisation is the employed persons working from home as a percentage of total employment. The indicator refers also to people with ages between 20 and 64 years.

At the European Union 27 countries level, during the last ten years this indicator's evolution is presented in Figure 5.

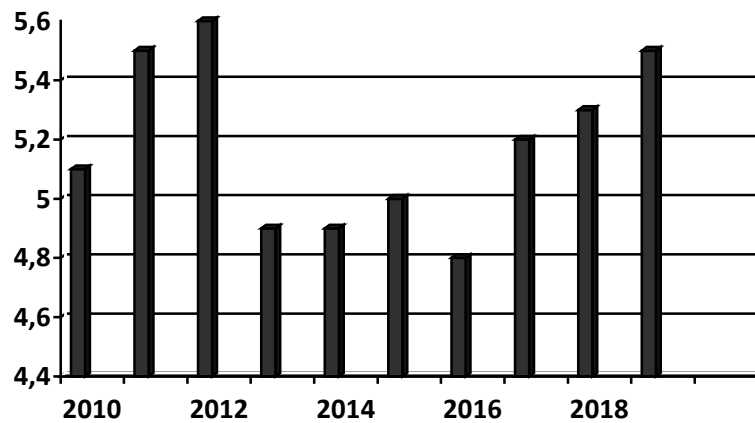


Fig. 5. *EU: Employed persons working from home*

Data source: <https://ec.europa.eu/eurostat/web/covid-19/overview>

In the European Union, the percentage of employed persons working from home has a fluctuant evolution during the analysed period. In comparison with the first year 2010, the percentage decreased in the period between 2013 and 2016. In all other periods there was an increase but not on such high levels. The highest rate was found in Austria with 10.2%, Luxembourg with 11.5%, Finland with 14.5% and Netherlands with 15%. The lowest levels are in Bulgaria with 0.5%, Romania with 0.8%, Hungary with 1.2% and Cyprus with 1.3%. The highest increase was in 2012 by 9.8% and in 2019 by 7.8%. The highest decrease was in 2016 by 5.88%. From one year to another there were decreases in 2013 in comparison with the previous year 2012 by 12.5% and in 2016 in comparison with the previous year 2015, by 4%. The highest increase was in 2017 in comparison with 2016, by 8.33%.

In Romania, in the same period, the evolution of the indicator is presented in Figure 6:

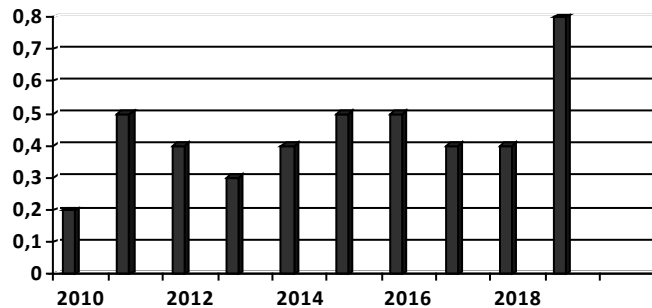


Fig. 6. *Romania: Employed persons working from home*

In Romania the level of employed persons working from home is very low during the entire analysed period being situated between 0.2% and 0.8% during the period 2010 and 2019.

Another important problem refers to the way that citizens are able to interact with the authorities. According to the Eurostat regional yearbook – 2020 edition “E-government is defined as the use of ICTs to improve the delivery of services by public authorities. In most of the EU Member States it is possible for private individuals to carry out a broad range of operations by interacting online with their public authorities, for example: making a tax return, requesting a birth certificate, downloading forms, or looking for information about the local transport network”.

At the European Union 27 countries level, during the last ten years this indicator’s evolution is presented in Figure 7.

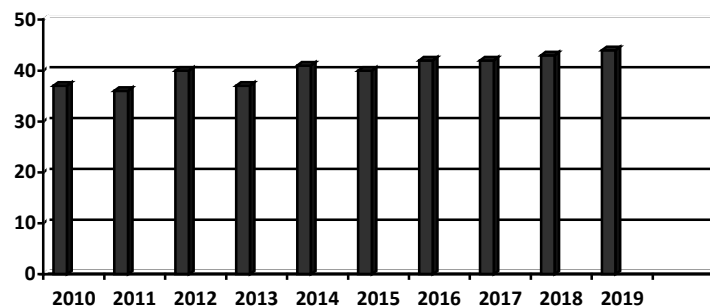


Fig. 7. *EU: Obtaining information from public authorities’ website*

Data source: <https://ec.europa.eu/eurostat/web/covid-19/overview>

In the European Union the percentage of individuals obtaining information from public authorities’ website is situated around 40%. The indicator increased in the analysed period from 37% in 2010 to 44% in 2019 meaning an increase by 18.9%. The lowest levels were found in Romania with 9%, Italy with 19% and Bulgaria with 20%. The

highest levels are in Germany with 58%, Estonia with 69% and Denmark with 89%. In the entire period, on average, the percentage of individuals obtaining information from public authorities' website increased every year by 1.94%.

In Romania, in the same period, the evolution of the indicator is presented in Figure 8:

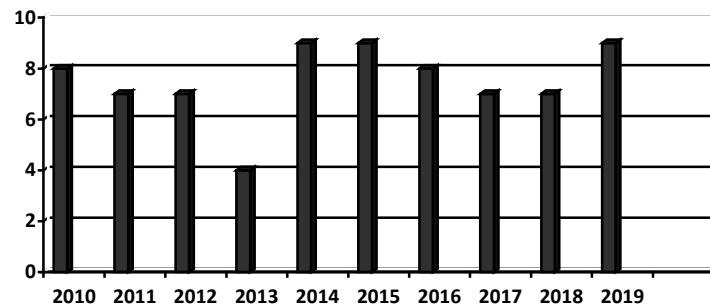


Fig. 8. *Romania obtaining information from public authorities' website*

In Romania the level of percentage of individuals obtaining information from public authorities' website is very low, in fact the lowest in the European Union, situated in 2019 at 9%. During the entire analysed period there was a small increase, by 1.32%.

3. Conclusions

As noticed, in Europe there are major differences between the countries in the new context. Many European countries have been using digital skills and digital methods for many years, so the situation did not surprize them. Other countries like Romania, Bulgaria and even Italy are not quite prepared for the new situation. Therefore, it is compulsory for those countries to take measures in order to improve the situation and to be able to adapt to the new requirements.

References

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