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ROMANIA – READY FOR ONLINE LEARNING?

CORINA GEORGETA DINCULESCU¹

Abstract

The Covid-19 pandemic has had a strong impact on education in Romania and worldwide. Radical measures have been necessary in the field of education, to limit the spread of the virus (like in all the fields affected by the pandemic). One of these measures – the closure of schools, universities and other education institutions and the shift to online learning – has led to a series of disequilibria in the entire education system, with major consequences on pupils/students, mainly in the case of those already vulnerable and disadvantaged. Online learning has been the greatest challenge that the education system has ever faced. The availability of Internet and mobile communication infrastructure, the access of population and education units to Internet and computers, the digital skills of pupils/students as well as of teachers, the availability of school curricula in forms necessary for online presentation have led to this challenge. At the same time, although many young people in Europe use the Internet for social activities, and the mobile Internet access has significantly increased in recent years, the use of technology for education purposes has not followed the same trend. Reducing the negative impact on learning and schooling has therefore been one of the challenges facing the education system. This paper attempts to highlight how the education system has adapted to the restrictions imposed by the pandemic, Romania's readiness, since the pandemic outbreak, for this type of education (through specific indicators on digital skills, connectivity and use of technologies in education, population access to Internet and to a personal computer at home, nationwide and by areas of residence), as well as the gaps between residence areas, between different categories of affected population.

Keywords: education, online learning, disparities in education, urban-rural disparities

JEL Classification: I21, I24, J14, J15, R11

INTRODUCTION

The COVID-19 pandemic has represented a turning point in education, a shift from classical education, which was in place until the pandemic outbreak, to online education, practically determining the transition of society to a digital age.

The educational landscape in Europe and globally has fundamentally changed, pupils needed to adapt rapidly to the new learning system, to acquire new digital skills. In their turn, teachers had not only to acquire computer skills, that many of them did not have, but also to develop these skills at a higher level, in order to reach their pedagogical objectives, by using new technologies to improve children's learning and understanding of the lessons taught.

However, the adaptation to the new learning system of the involved actors (pupil/students, on the one hand, and teachers, on the other) was not as expected, the transition to online learning highlighting significant deficits in terms of digital skills, connectivity and use of technologies in education, both in terms of teaching staff and pupils / students.

An image, in this sense, is provided by the results of a study conducted by World Vision Romania in February 2021 “*Online school in Romania offline, in rural areas, 2021*”². According to this study, although in the pandemic period significant steps have been made for the improvement of digital infrastructure (more than 250,000 pupils have received tablets for online school – either through the national program or through private initiatives) and for Internet connection (however many areas in the countryside have no signal and access to Internet), although new digital education platforms have been used or the already existing ones have been improved, basic digital skills have been created for pupils and teachers, the pandemic impact – one year of online school in the rural area – has widened the already existing gap between urban and village schools. The pupils from this residence area lost 25 weeks of school, having practically no access to education, due to the lack of equipment and Internet access. The expected consequence would be the increase of dropout rate.

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² Survey conducted by World Vision Romania in the period February 5-12, 2021 in 74 education units in the rural area from 14 counties.

According to the results of the same study, 1 out of 2 teachers consider that pupils did not cover the learning areas of the curriculum this year, 1 out of 10 teachers consider that pupils were not able to cover 80% of the school curriculum and 1 out of 3 teachers consider that children's scores have deteriorated in the period of online school.

80% of teachers also consider that they need continuous training in digital education and 77% of these consider that a standardized guide would be necessary for online teaching and evaluation of schoolchildren.

The conclusion of the study: "the learning loss of rural students accumulated during the online school are major and require immediate intervention to recover this learning loss".

Education digitization (real digitization, not only at declarative level) should be one of the main priorities of governments, so that all children, regardless of their residence area, urban or rural, should have equal access to education. Narrowing the gap between the rural and urban areas (Romania is on the penultimate place in terms of rural digitization in the European Union) would bring real benefits for Romania and for the Romanian village and its community in particular.

The analysis of the access to Internet and computer at home reveals that in the countryside, access to Internet and to computer at home, in particular, is quite limited, therefore the applicability of measures by the Ministry of Education is limited.

Those marginalized before the pandemic are even more exposed to risk at present. The correlation between the socio-demographic factors (gender, ethnicity, age, residence area) and the economic factors (poverty) can highlight multiple forms of discrimination and exclusion. At the same time, despite the existence of such initiatives to create distance learning platforms and systems, even though these gradually emerged since the authorities decided school closure, these not reached all children/young people, as access to distance learning is conditional to the social environment of their origin, by parents' educational level, etc. Irrespective of the formula adopted by authorities in this period, pupils have been left with a deficit of knowledge.

MATERIAL AND METHOD

One of the methods used to prepare the raw analysis material was the personalized query of the official available databases. The information on access to Internet and computer at home, on the disparities by areas of residence had as data sources the official publications of the National Institute of Statistics (NIS) from the Survey on population access to information and communication technology in Romania, the query of the public Tempo Online database, followed by author's own processing.

Reports, strategies and plans of action have been consulted with regard to education and the impact of pandemic on education, the adopted and implemented measures in this sector by other EU member states and Romania.

For the purpose of documentation, the national and international literature, various studies and analyses by national and world-renowned economic institutions were useful benchmarks. Information from various statistical research studies, analyses, reports and unofficial studies, as well as from regional development strategies were also used. Another method used in this study was complementary information filtering, collection and analysis (from Internet, various publications).

RESULTS AND DISCUSSIONS

According to the conclusions of the European *Education and Training Monitor*¹, in Romania, published by the European Commission in November 2020, which mainly focused on teaching and learning in the digital age, in a year marked by the pandemic and its effects, although the mobile Internet access has significantly increased in latest years, the process of technology integration in the educational system has continued to be slow, most youngsters in Europe preferring activities on the

¹Education and Training Monitor, 2020

internet to access social networking sites.

Only 57% of the Romanian young people aged 16 – 19 years have basic or above basic overall digital skills (as against the EU average - 82%). A partial explanation for this low percentage, compared to the EU average, is that in the primary and gymnasium classes, when practically the basic digital skills are acquired, ICT (information and communication technology) is an optional subject (it is only since 2017 that it has been a compulsory subject in high school). The situation is even more critical in the rural schools (where 43% of pupils are enrolled), where the capacity to provide digital education is lower than in urban areas (due to the small number of qualified teachers in this field – 2 out of 10 teachers do not have any digital skills – and to the weaker digital infrastructure).

In terms of teachers' digital skills, the report shows that there are many weak points in teachers training for the use of this technology. Although about 70% of teachers in the lower secondary education consider that they are well or very well prepared for the use of digital methods in the teaching process¹, more than half of the number of teachers who participated in the study consider that they have insufficiently developed their skills for the effective use of distance learning platforms and one fifth of the teaching staff participating in the study reported an acute need for professional development in digital skills (EU average is 18%).

Digital infrastructure in schools is not sufficiently developed, in the rural areas in particular. Compared to the EU average, far fewer schools are highly equipped and connected. Few Romanian pupils have the opportunity to learn in a school equipped with computers and Internet connection. Only 14% of the Romanian pupils enrolled in primary education (EU average: 35%), 16% in the lower secondary education (EU average: 52%) and 31% in the higher secondary education (EU average: 72%) are learning in such schools (European Commission, 2019).

According to the available data, in the year 2017, 1 out of 5 schools had no Internet connection, of which only 5% in the urban area and 24 % in the rural area (according to the Minister of Education and Research data, 2018). The number of computers in each school is higher by 60% in the urban than in the rural areas, which illustrates the deep urban/rural gap, which has grown even wider due to the shift to online learning.

38% of the teaching staff had to use a shared device with other family members, while 11% had no device at all.

Although Romania has undertaken to implement a digitization agenda for education by the year 2020, the report concluded that Romania still has great shortcomings in this regard, so that the recommendation of the Council of the European Union for Romania was to “strengthen digital skills and learning and ensure equal access to education”.

The conclusions of this report add to the analysis of the population access to information and communication technology, of population access to Internet and computer at home respectively. This analysis, carried out at national level and by areas of residence, provides an overview of Romania's readiness for the transition to online learning, at the beginning of the pandemic, to assess the efficiency and applicability of government measures on online learning.

Population's internet access, at home

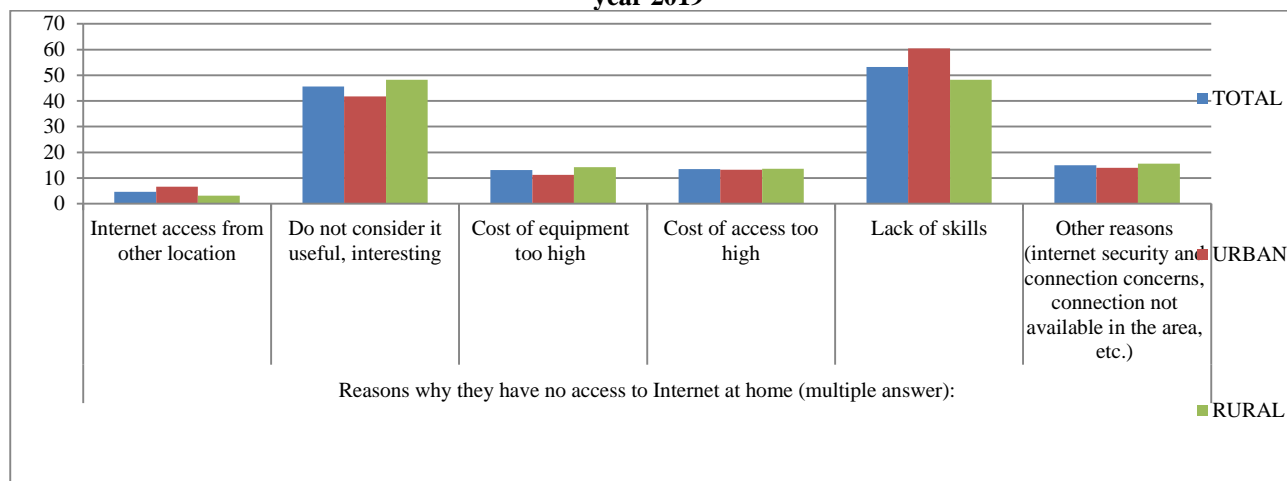
According to the results of the *Survey on the access to information and communication technology (ICT)*, in the year 2019, conducted by NIS, 75.7% of households in Romania had *access to the Internet at home*, of which almost two thirds were found in the urban area and only one third in the rural area (almost double in the urban area compared to the rural area). This urban/rural gap can be explained by the Internet providers that are available in each area and by the financial possibilities of each household to pay or not pay for the Internet connection.

On the other hand, out of total households in the urban area, 82.5% have Internet access at home, and only 66.7% of rural households have Internet access at home.

¹According to the International study on the teaching-learning process of 2018, initiated by OECD, mentioned in the European Monitor of Education, in Romania

However, a significant percentage (24.3%) of households in Romania have no Internet access at home, the *reasons* being different. At national level, more than half of households have no Internet at home due to lack of skills, and 2 out of 5 households do not consider the Internet interesting and useful enough to be connected at home.

Figure 1. Share of households with no Internet access at home, by reasons and areas of residence, in the year 2019



Source: INS

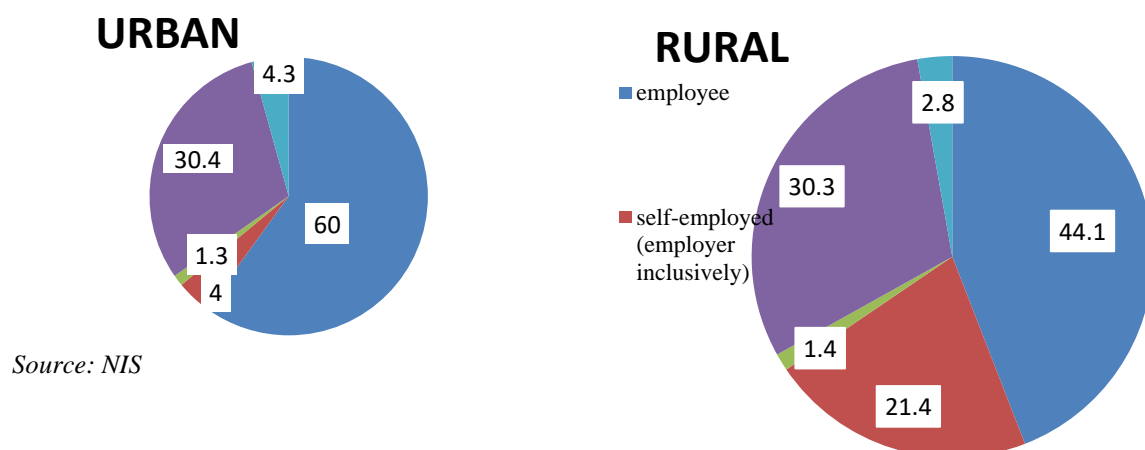
The situation is similar by residence areas, with different weights, for some reasons, so that in the urban areas it is noted that 3 out of 5 households do not have Internet at home due to lack of skills and over 2 out of 5 households because they do not consider the Internet interesting and useful enough to be connected at home. In the rural area, almost half of the number of households have no Internet connection due to lack of skills and because they do not consider it useful/interesting to be connected at home. (*Figure 1*)

By *occupational status of household head*, more than half of total households that have Internet access at home are households with salaried household heads (53.9%), about one third are households with pensioner household heads, the remaining being households of self-employed (10.7%), households with other inactive person as household head (3.7%) (where pupils/students are also included) and households with unemployed household heads (1.3%).

By areas of residence, the previously mentioned hierarchy at national level is also maintained, yet the shares are significantly different in the case of households with self-employed household head: in the rural area, the share of households of self-employed with Internet access at home is five times higher than in the urban area, and the share of households with Internet access at home with a salaried household head is lower by 15 percentage points in the rural area than in the urban area. This situation overlaps the structure of households in the two residence areas. (*Figure 2*)

In terms of people using the Internet, it is shown that nationwide, 82.3% of persons aged 16 - 74 years are using or have used/accessed the Internet at a given moment (17.7% of persons have never used the Internet), and in the urban area this share is even higher (88.5%).

Figure 2. Structure of households with Internet access at home, by occupational status of household head and residence areas, in the year 2019

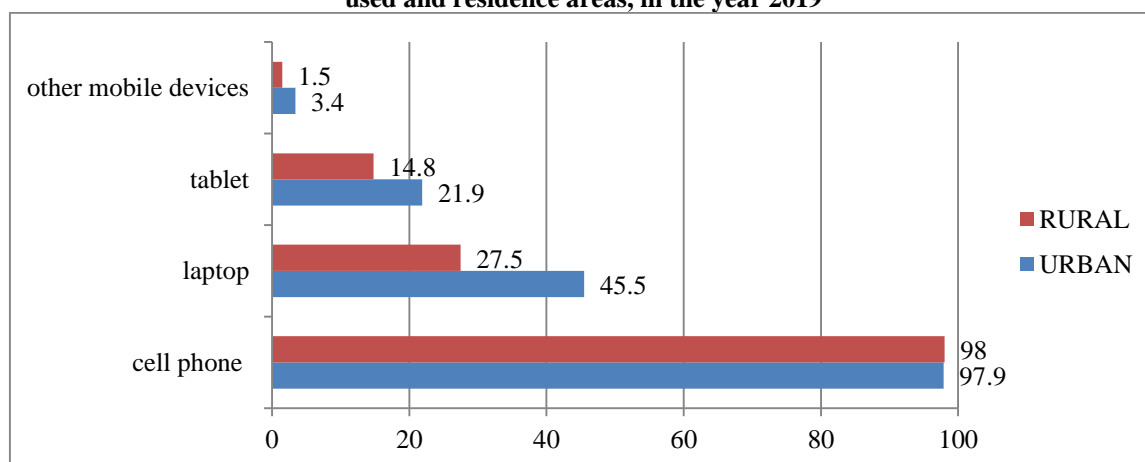


Out of these, 60% are in the urban area and the remaining 40% in the rural area, the distribution by areas of residence indicating another urban – rural divide. In the rural area, the share of those who have ever accessed the Internet is lower by 14 percentage points than in the urban area, the share of persons who have never used the Internet being double compared to that in the urban area (25.2%).

According to NIS data, out of total persons aged 16 - 74 years using mobile devices to access the Internet, in the last 3 months, *the most used mobile devices for accessing the Internet* were the cell phone or smartphone (97.9%). The laptop comes next, yet at a far distance (38.2%), followed by the tablet (19.1%).

In terms of distribution by residence areas, it is noted that certain mobile devices used for accessing the Internet contribute to differentiations.

Figure 3. Share of persons aged 16 -74 years who have used the Internet in the last 3 months, by devices used and residence areas, in the year 2019



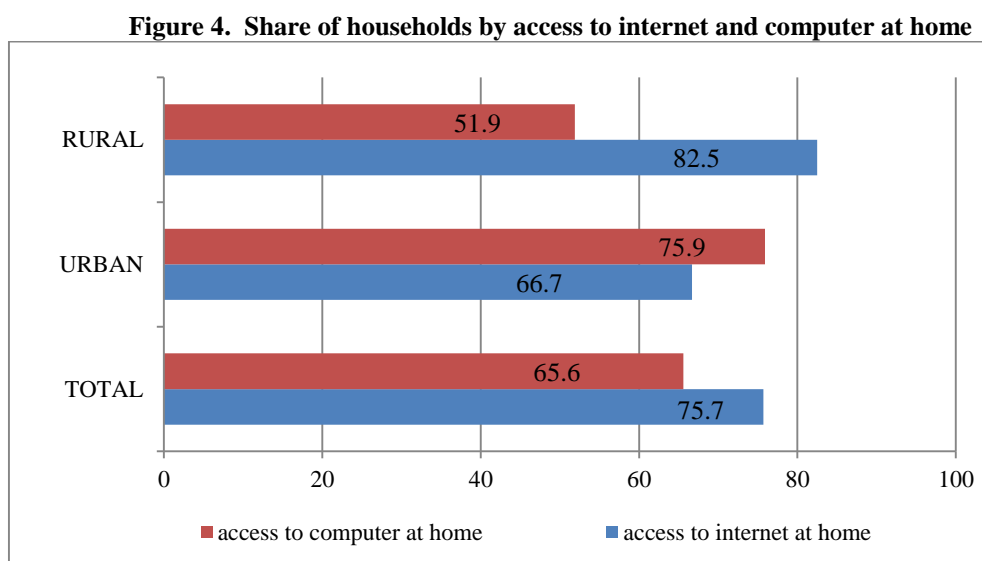
While in the urban area the share of persons aged 16 - 74 years who used a laptop to access the Internet was 45.5%, in the rural area this represented a little less than half of the share in the urban area, and the share of persons who used the tablet to access the Internet in the rural area was lower by 7 percentage points compared to the urban area. (Figure 3)

Population access to computer at home

Nationwide, two thirds of total households have access to computer at home. This indicator differs by areas of residence areas, so that while in the urban area, three quarters of households have access to computer at home, in the rural area only half of rural households have access to computer at home.

At the same time, out of total persons aged 16 - 74 years who have ever used the computer, about two thirds are living in the urban area and only one third in the rural area.

Correlating the two previously analyzed indicators, i.e. the share of households with Internet access at home and the share of households with access to computer at home, we note that at national level, access to computer at home is lower (by 10 percentage points) than access to Internet (*Figure 4*)



Source: NIS

By areas of residence, disparities are highlighted by a higher share (by about 10 percentage points) of households with access to computer at home as against the share of households with Internet access at home, in the urban area, as compared to the rural area, where the share of households with access to computer at home is much lower than the share of households with internet access at home (by 30 percentage points), the limited access being determined by the connection to Internet mainly on cell phones and other mobile devices.

CONCLUSIONS

On the basis of these data, the following conclusion can be drawn: Romania, at the beginning of the pandemic, was not prepared for the transition to online learning, in logistical terms in the first place, i.e. in terms of access to Internet and to computer/tablet/mobile device at home, the situation being more critical in the rural area. At the same time, both in the rural and in the urban areas, the online learning was only at declarative level, with no consistency and continuity¹. In the next school year (the current year), 2020/2021, the situation changed in this respect, but even though the online classes were held, the conclusion of the previous school year remained valid – pupils have been left with a lack of knowledge.

The existing gaps before this situation caused by pandemic between the areas of residence and between pupils in the urban area and those in the rural area implicitly, have been reconfirmed by

¹Concrete example, in Bucharest, in the period since school closure until the end of the school year 2019/2020, in the case of an 8th grade, there was only one meeting on a leaning platform (Zoom) in one of the subjects in which pupils were supposed to go in for a national assessment exam.

the indicators presented above, highlighting inequalities of opportunity in terms of children/young people education in Romania, currently greater inequalities than those already existing.

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