

The Third-level Digital Divide among Elderly Hungarians in Romania

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ABSTRACT

The aim of the present study is to examine the characteristics of the third-level digital divide among elderly Hungarians (over 65 years of age) in Romania. The third level of digital divide indicates the emergence of digital habits in the Bourdieusian sense, which provide real benefits in different areas of everyday life. Hungarian elderly people in Romania are clearly lagging in terms of the third-level digital divide. The explanation for this is partly to be found in the limits imposed by the characteristics of their age and partly in their socio-economic situation. Elderly Hungarian people in Romania tenaciously adhere to their usual ways of life and previously established daily habits, and their repertoire does not integrate the use of digital technology. The results obtained in this study of elderly Hungarians in Romania are in line with the research results of digital inequalities, according to which there is a relationship between the degree of digital competence, the structure and usefulness of digital activities, and inequalities according to the traditional dimensions of social stratification (economic, cultural, individual).

KEYWORDS

digital inequalities, third-level digital divide, elderly Hungarians in Romania, social inequalities

INTRODUCTION

In the Europe of the third millennium, large-scale social aging and the rapid development of digital technology are phenomena whose consequences manifested in social change are inevitable (INS 2019).

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According to 2019 Eurostat data, the proportion of the European population (EU28) using the internet reached 87 percent in 2019, which means that except for the eternal laggards (ROGERS 1995), the majority of the population in EU societies are active internet users. There are even more encouraging figures for European businesses, where 97 percent of companies with more than 10 employees (EU28) have internet connection.

The global coronavirus epidemic in 2020 has given increased impetus to digital transformation in various areas of social and economic life. Following the stagnation caused by the COVID-19 pandemic, in order to relaunch social functioning and revitalize economic life, vocal social and economic actors in some European countries are looking for the solution in the online world.

The issues of aging European societies have also come to the fore as a result of the coronavirus epidemic, since the problems of the epidemic have affected the elderly population to a greater extent, revealing that these societies are not at all prepared to deal with the problems of an aging population (KUCSERA 2020). The first world conference on aging societies was held in 1982, where it was concluded that social interventions for the elderly were needed to ensure financial independence, social participation, health and social care, self-fulfillment, and human dignity throughout people's lives, including old age (LAMPEK 2015); yet, in all these areas, even the welfare states of Western Europe have remained ineffective.

According to European standards, a society begins to age when the elderly (over 65 years of age) population exceeds 7 percent (TIAGO 2017). According to 2019 statistics, the proportion of the European population over the age of 65 was 18.79 percent. Aging is even more pronounced in Western European countries (20.84 percent).¹ In 2019, 13.9 percent of the Romanian population belonged to the 65–74 age group and 4.7 percent to the group over 75 years of age (EUROSTAT 2019b). The explanation for the aging of Romanian society lies in the declining number of births and a robust international labor market migration (INS 2019).

The integration of digital technology in the media practices of the so-called traditional mass media generation (HEPP et al. 2017), i.e., the elderly, is lagging both in Romania and internationally (TÓKÉS – VAJDA 2019; ȘTEFĂNIȚĂ – IVAN 2018; SCHREURS et al. 2017; QUAN-HAASE et al. 2016). Elderly Hungarians in Romania are a social group lagging in the use of digital media, which has both individual (motivational and situational) and group (cultural), as well as socio-economic (SES) reasons (SCHREURS et al. 2017; TÓKÉS – VAJDA 2019).

The catching up of the elderly population with the increased technological requirements at the dawn of the third millennium has been a timely issue even in the period before the COVID-19 pandemic, as the migration of a significant part of social and economic life to the digital space has long been foreseen. In the emergency situation brought on by the COVID-19 pandemic, the digital catching up of elderly people deserves special attention both regionally and internationally. Otherwise, these age groups can be expected to be completely excluded from the socio-economic processes of the post-COVID-19 pandemic period (FARKAS et al. 2009).

The purpose of this study is to examine the third-level digital divide among elderly (65+) Hungarians in Romania. The third-level digital divide refers to the degree of the practical benefits of internet use in different areas of real (offline) life. The research was carried out during the first wave of the COVID-19 pandemic, i.e., in June 2020, using the possibilities of online data

¹Our World in Data: Age Structure. <https://ourworldindata.org/age-structure>.



collection. During this period, 51 online interviews were conducted with Hungarian people over the age of 65.

The study starts with a theoretical presentation of the third-level digital divide, the mapping of the characteristics of elderly people, and the description of the internet use of elderly people in Romania. The second half of the study presents the methodology, results, and conclusions of the online research conducted in the summer of 2020.

Levels of the digital divide

The widespread use of the internet has given impetus to the techno-optimistic view, according to which the infinite amount of knowledge available on the internet is accessible to anyone, creating equal opportunities for members of the information society (WEBSTER 2007) to improve their living conditions and quality of life, whether in individual, social, cultural, economic, or political terms (MCKEOWN 2016). This idea is not new, as the proliferation of traditional mass media has raised similar expectations. However, this optimism proved unfounded (TICHENOR et al. 1970; VISWANATH – FINNEGAN 1996). The techno-optimistic view resuscitated by the spread of the internet is not supported by research on the social impact of the internet (HARGITTAI 2002; VAN DIJK 2005; WITTE – MANNON 2010; HELSPER 2012; VAN DEURSEN – VAN DIJK 2015; VEN DEURSEN – HELSPER 2015, 2018).

Initial research on the spread of the internet has used the concept of the digital divide to characterize the social integration of digital technology, suggesting that society can be divided into those who have access to the internet and those who do not. Studies soon showed that not all individuals who have access to the internet take advantage of the opportunities/benefits of this access. This is when the concept of the first-level digital divide was introduced (HARGITTAI 2002). Over time, it has become apparent that internet use is not uniform, as there are differences in the quality of use, skills, and commitment. The totality of the differences that result from differences in the quality of internet use has been termed as the second-level digital divide (HARGITTAI 2002). Current research focuses on the third-level digital divide. There are significant differences in internet use between different social groups if the focus is on the social, economic, political, or individual benefits of internet use in different areas of life (VAN DEURSEN – HELSPER 2018; HELSPER et al. 2015; HELSPER 2012).

THE THIRD-LEVEL DIGITAL DIVIDE

If the sum of the first-, second-, and third-level digital divide is simply termed as digital inequalities, the relationship between digital and traditional social inequalities is supported by research findings (RAGNEDDA 2017, 2018, 2019; PARK 2018; RAGNEDDA – RUIU 2020). This means that social groups who are in an advantageous position according to the traditional dimensions of stratification are also in a more advantageous position regarding digital inequalities, especially in terms of acquiring and exploiting useful digital skills (VAN DIJK 2005; VAN DEURSEN – VAN DIJK 2015; RAGNEDDA – RUIU 2020).

Literature on first- (VAN DIJK 2005, HARGITTAI 2002) and second-level digital divides (SCHEERDER et al. 2017; HARGITTAI 2002, 2007) is abundant, laying the groundwork for further research into the links between traditional social and digital inequalities. Differences in access, levels of competence, and the structure of different levels of digital skills are intricately linked to



inequalities in the traditional dimensions of social stratification (economic, cultural, political, social, individual) and are a precondition for the emergence of the third-level digital divide (RAGNEDDA 2018, 2019; VAN DEURSEN et al. 2017; VAN DEURSEN – HELSPER 2015).

The development of digital inequalities cannot be limited to differences in digital competence levels. It is much more appropriate to link it to the benefits and gains from the use of valuable content available in the digital space and to the use of various digital services. Life chances in different areas of real life are appreciably influenced by the level of digital competence, the motivation to use the internet, and the valuable knowledge gained online. Joint observation of the use of digital technology and traditional social inequalities has led to the introduction of the concept of a third-level digital divide. The third-level digital divide refers to users' ability to reap real-life benefits from their digital activities in different areas of life (RAGNEDDA 2019).

Based on the assumption of the theory of tertiary digital inequalities, people who are advantaged according to the criteria of traditional social inequalities are more likely to be able to take advantage of the valuable knowledge and digital services gained through internet use. The internet is a democratic media channel accessible to all, yet many members of society are unable to take advantage of the opportunities offered by digital platforms (RAGNEDDA 2019). Consequently, the study of digital inequalities is impossible and meaningless without considering traditional social inequalities.

VAN DEURSEN and HELSPER (2015) demonstrated that meaningful internet use leads to practical benefits when the user also has significant resources in various areas of real life. In their view, the usefulness of the online activities of users with similar digital abilities and skills depends on their traditional capital.

Based on VAN DIJK'S (2005) classification, VAN DEURSEN and HELSPER (2015) have monitored the benefits of digital activities in the economic, social, political, administrative, and educational fields. They included in the economic category the online sale and purchase of goods and services and the online involvement in labor market processes. The various online forms of social collaboration (networking, online dating) have been assigned to the social field. The possibilities of online connection to political and public life were relegated to the political field. The acquisition of various educational materials and the use of online trainings were listed under education. The administrative area includes dealing with public authorities and the search for health information.

VAN DEURSEN and HELSPER (2015) have established that digital activities in different areas of life do not in and of themselves lead to real-life benefits. The prerequisite for this is that users in these areas have a high level of motivation, competence, and access. In addition to the availability of traditional resources, a high level of digital competence, integration of technological, informational, content production, and social skills is essential for the implementation of useful digital activities (VAN DEURSEN – VAN DIJK, 2019).

The relationship between traditional socio-economic and digital inequalities is clearly presented by VAN DEURSEN and HELSPER (2015) in the model below (Fig. 1).

The relationship of socio-demographic factors to traditional socio-economic and digital inequalities is the basis of the model. Research confirms the influence of age, gender, education, occupation, place of residence, health status, and digital competence level on the extent of digital inequalities (ȘTEFĂNIȚĂ – IVAN 2018; VAN DEURSEN – HELSPER 2015; VAN DEURSEN – VAN DIJK 2014). The model highlights that the real-life benefits of digital activities in different areas of life can be derived from the blending of traditional capital and a high level of digital competence.



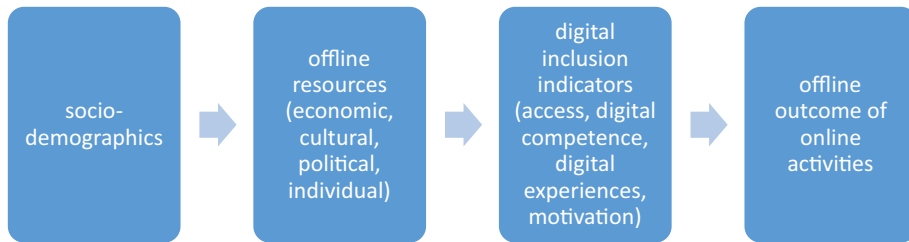


Fig. 1. Model of the reproduction of inequalities in digital society (based on VAN DEURSEN – HELSPER 2015:33)

THE CHARACTERISTICS OF ELDERLY PEOPLE

Man is not only a biological but also a social being. Thus, as we age, our place and role in society also changes. The duties and rights of social age are institutionally regulated, thus varying from period to period and society to society (ROTH 2004).

According to Mária TÖRÖCSIK (2015), the image of the old man/woman is associated with the type of the sage in the Jungian archetypes. In legends, the sage is portrayed as someone who is experienced, understanding, and knowledgeable about the world. Thus, he/she is perceived positively. András A. GERGELY (2013) considers that, in traditional societies, respect for age has developed because the elderly person “has actually lived, experienced, and carries, through his/her own personal growth, the traditional knowledge elements, values, norms, and legal customs, as an intermediary between the ‘ancients’ and the current ‘moderns’.” However, the reality of the 21st century is more nuanced than that. As ROTH (2004) emphasizes, perceptions of social age vary by historical age and society. In Eastern European societies at the beginning of the third millennium, the perception of older people tends to be negative. The pace of change in post-modern society is faster than ever. Thus, the growing environmental distance between different social age groups becomes an obstacle to interest in and cooperation with each other. The elements of knowledge, norms, and values represented by today’s elderly people seem useless to the younger generations. The designation as an “elderly person” has acquired a pejorative interpretation, carrying the connotation of backwardness and the inability to catch up. “Aging is really just a symbol of redundancy, a path of obsolescence and invalidity” (GERGELY 2013). The term “old age” is unpleasant even to the elderly; members of this age group are reluctant to identify with it (TÖRÖCSIK 2015).

Gergely emphasizes that “the basic game of all generational debut is to push previous generations off the stage.” This statement is especially valid in the postmodern period that is strongly influenced by technological development, globalization, and labor migration. As GERGELY (2013) very aptly puts it, “the sustainability of traditional community values is declining. This also reduces the prestige of older people’s position, origin, livelihood, knowledge transfer, family organization, and decision-making. As a result, the system of child—parent responsibilities seems to evaporate, the network threads breaking. Desocialization is beginning to characterize the social environment of the increasingly lonely elderly, and the reverence towards older people, which was previously uncontested, is increasingly replaced by the



pragmatic efficiency principle, which would prefer to banish from the circle of consumers these 'obstacles' to youthful dynamism."

This social opinion is supported by the fact that aging is indeed the "descending branch" of social engagement (ROTH 2004) and is characterized by biological and social processes that make it difficult to keep pace with the cultural changes triggered by rapid technological development through continuous learning and adaptation.

"In many areas of life, there is a measurable decline in the physical, mental, and social performance associated with aging, as well as the emergence of persistent chronic diseases that impair health and often the quality of life" (LAMPEK 2015). As age progresses, more and more obstacles to adaptation and learning emerge, such as lack of information, health problems, passive or negative attitudes towards aging, lack of interest, physical difficulties in access, and lack of learning assistance (NAGY 2011). As a result, elderly people avoid unknown situations and give up making significant changes in their lives (MARÓTI 2013). Narrowing interests and thinking strengthens adherence to established habits and repetitive behaviors, which brings with it the "ossification" and inflexible application of beliefs.

The biological and psychological degradation processes associated with aging occur more rapidly if the individual has become comfortable already at a young age, giving up learning, reading, and solving problems that require intensive thinking (MARÓTI 2013).

Catching up with digital technological advances also requires older people to further develop their knowledge and experience. Adaptation means completing new learning tasks, particularly in the field of digital culture, and the acquisition of English language skills. This already requires a serious effort from older people, as learning is not just about "memorizing information, but rather about organizing it into logical relationships, interpreting connections, drawing new conclusions, and raising issues that need to be clarified. (. . .) Elderly people are rarely able to do such learning unless they have become used to it at a younger age" (MARÓTI 2013).

Older people perceive their situation and their separation from younger age groups by increasing distances. "The fact that young people speak a different language and they are interested in things that are foreign and incomprehensible to the elderly enhances their belief that change has passed over them, and no one cares about their experience and knowledge anymore" (MARÓTI 2013).

The successful adaptation of older people to the cultural transformation brought about by the development of digital technology could be the realization of active aging. However, this presupposes cooperation and solidarity between the age groups. The first definition of active aging can be attributed to the OECD. This definition was laid down and proposed for implementation by the organization in 1998. The solution is "enabling older people to remain as active as possible in society and the economy. This means that they should be given the opportunity to decide freely how they spend their free time: with study, work, rest, or benefiting from care and nursing" (OECD 1998).

METHODOLOGY

The research on which this study is based examined the characteristics of the third-level digital divide among elderly Hungarian people (over 65 years of age) in Romania. In the course of the research, using the model of VAN DEURSEN and HELSPER (2015), we sought to explore digital



practices in the Bourdieusian sense, from which the members of the target group benefit in different areas of everyday life.

The research targeted the Hungarian population over the age of 65 in Romania. The research process was hampered by the COVID-19 epidemic, as there was a state of emergency in Romania until May 16, 2020. The state of emergency was followed by a state of urgency, which is still in effect. The aging population is particularly vulnerable to the coronavirus epidemic. Therefore, the data collection was done online or by phone (LUPTON *ed.* 2020).

Sampling was limited to available subjects. During the data collection period, in June 2020, an online interview was conducted with 51 subjects. The subjects came from the three Hungarian-inhabited Romanian counties – Harghita, Mureş, Covasna – mainly using the snowball method (Table 1).

The sample has the following composition:

The sample shows an over-representation of rural female subjects with a secondary education, who proved to be the most accessible but form a more disadvantaged group among elderly internet users. The data analysis method was the thematic content analysis of the transcribed interviews. The criteria of the content analysis were the theoretical dimensions of the third-level digital divide.

The socio-economic and technological environment of elderly people in Romania

The social welfare status of the Romanian population is poor. Data for Romania lag significantly behind EU27² and EU15 countries, and even compared to the former socialist (EU8) countries (INCCV 2017). Presently, the majority of Romanian society is characterized by a lack of material well-being, poor quality of life, low income, job shortages, and poverty. These processes are even more pronounced in rural areas (INCCV 2017).

The social organization decisions made in Romania after 1989 have led to the deterioration of Romanian society. In 2015, the employment rate was 66 percent, one of the lowest in the EU28. 60 percent of the rural population was employed in agriculture. However, this refers to

Table 1. The composition of the research sample by age, gender, place of residence, and education

Gender of subject	Age: 65–74 years				Age: over 75 years			
	Urban		Rural		Urban		Rural	
	Secondary education	Tertiary education	Secondary education	Tertiary education	Secondary education	Tertiary education	Secondary education	Tertiary education
Male	1	3	6	–	–	–	2	–
Female	8	4	21	3	–	2	–	1
Total	9	7	27	3	–	2	2	1

²EU27 (2021), EU15 – Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, respectively EU8 – Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia, Slovenia, Hungary.



self-sufficient agriculture and not agricultural enterprises. As a result, this population does not receive social and health care benefits from the state (INCCV 2017).

Romania has the lowest income among EU countries. The average annual income of the Romanian population is 25 percent of the average annual income of the EU15 countries and 60 percent of the average annual income of the EU8 countries (INCCV 2017). 23.8 percent of Romanian workers and 31.2 percent of the total population are at risk of poverty and social exclusion (EUROSTAT 2019b). The elderly population is particularly affected by this financially disadvantaged situation. Since the regime change in 1989, the Romanian state has chosen the path of the least social intervention. Romania is unique among the former socialist countries from this perspective. The purchase value of Romanian pensions has been steadily declining since the socialist period. A slight increase became apparent after 2008 (INCCV 2017).

Among the EU28 countries, Romania also has the highest level of inequality within society. The value of the GINI index is 37.4 percent, which indicates that there are significant income inequalities in society (INCCV 2017).

Under the socio-economic conditions outlined earlier, the application and exploitation of rapidly evolving digital technology is a real challenge for the Romanian population. Successful internet users are typically urban, young or middle-aged, with middle or upper socio-economic status (TUFA 2010; EUROSTAT 2019a). However, only a small proportion of the Romanian population has such characteristics. This characterization of the successful internet user implies the disadvantages of rural and elderly people with low socio-economic status in catching up with digital technology (ȘTEFĂNIȚĂ – IVAN 2018; DASCĂLU et al. 2018).

According to 2019 Eurostat data, 45 percent of elderly people in Romania (aged 65–74) use the internet. This ratio increased tenfold between 2009 and 2019, but is still below the EU28 average (67 percent). The rate of internet use increases in proportion to the increase in educational attainment. Thus, 70 percent of the Romanian population with the lowest educational attainment and more than 90 percent of the Romanian population with the highest educational attainment are internet users (EUROSTAT 2019a; ȘTEFĂNIȚĂ – IVAN 2018). Available statistics and analyses clearly indicate a substantial distance between the urban and rural population in Romania in the use of digital technology (ȘTEFĂNIȚĂ – IVAN 2018). The Romanian urban population has twice as many people with digital competences at least at or above the basic level as the rural population. However, a maximum of 40 percent of the total population has digital competence at the basic level or higher. The comparison of statistical indicators of the information society between the countries of Central and Eastern Europe (Czech Republic, Poland, Hungary) confirms the regional lag of Romania, which, along with Bulgaria, has fallen behind in catching up with digital Europe (ȘTEFĂNIȚĂ – IVAN 2018).

RESULTS, INTERPRETATION

The research results presented below can be considered a continuation of a study started in 2018.³ Based on the data collected in 2018, a qualitative survey about digital practices and digital

³The title of the research was: *Digital media and social diversity – Digital literacy of different social groups*. The research was supported by the Hungarian Academy of Sciences in 2017–2018 within the framework of the Domus Homeland Scholarship Program.



literacy was conducted among elderly Hungarians in Romania (TÖRKÉS – VAJDA 2019). However, research confirms that digital inequalities cannot be limited to differences in digital competence levels. The nature of digital inequalities is much more prominent if the focus is on the implementation of valuable digital content and on the use of digital services. The analysis of the data collected during the coronavirus epidemic in 2020 was aimed precisely at exploring this aspect, and the question, “what do elderly Hungarians in Romania do on the internet,” was further expanded into “how do they benefit from what they do on the internet.”

The 2018 survey showed that the attitude of elderly Hungarians in Romania towards digital technology was characterized not so much by rejection as by concern due to the unknown, as they did not have the basic digital skills that would encourage appropriate use of the technology. In the appropriation of digital technology, elderly Hungarians in Romania would need the help of both their narrower and wider social environment. However, their level of social support is unsatisfactory. Younger family members are impatient, so older people only ask them the most important questions about their internet use in order not to abuse the patience of the younger ones. They do not receive any free institutional support, and few of them would resort to paid courses or organized training (TÖRKÉS – VAJDA 2019; SCHREUERS – QUAN-HASSE – MARTIN 2017; VAN DEURSEN – HELSPER 2018).

Based on the online interviews conducted during the first wave of the 2020 coronavirus epidemic, the digital practices of elderly Hungarians in Romania and their benefits in various areas of everyday life after two years will be revealed to the reader. For ease of language, we are talking about elderly Hungarian people in Romania, but the results reflect the responses of 51 elderly Hungarians from three Transylvanian counties (Harghita, Covasna, Mureş).

The attitude towards technological development

Older people in Romania are aware of the technological revolution taking place around them, and their ideal expectation of themselves is the appropriation of the tools of digital technology. At the declarative level, subjects find it inconceivable not to keep up with the challenges of the digital world (I27⁴), as modern life requires them to keep pace with technological change (I2, I14). Nevertheless, there is generally a lack of interest in the real opportunities offered by technological development. Elderly people are no longer motivated to make new intellectual investments because they do not see the return and benefits of these investments (I3, I4, I12, I40). The disinterest is also implicitly manifested in the fact that respondents consider technological development good but not vital or necessary for them personally (I13, I48). A positive opinion of digital technology without its real use is typical for less educated social groups who have no personal experience in the matter but feel pressured to conform to the prevailing majority's opinion (HASEBRINK et al. 2012).

Nevertheless, most of the respondents expressed fears and anxieties. Because they are no longer able to acquire new knowledge and technological skills, even trying to do so is considered an unnecessary effort and a waste of time (I6, I8, I9, I38). For those who have set out to master a higher level of computer or smartphone use, the obstacle to their progress is that they forget what they have learned before (I3).

⁴The I27 designation refers to the interview with the 27th interviewee. Hereinafter, the Ixx notation refers to the interview with the corresponding serial number.



Device use: computer or smartphone?

The proportion of the Hungarian elderly population in Romania using the internet has increased over the last ten years. This is largely due to the proliferation of smartphones and mobile internet services. Elderly Hungarians in Romania see many benefits of the smartphone and even invest it with symbolic meaning (I8). A significant number of interviewees pointed out that the smartphone, as a successor to the mobile phone, easily fits in a small space (I5, I22, I33). Therefore, they can carry it with them everywhere – to the forests and fields, shopping, excursions, while going about their daily business, etc. (I15, I18, I22) – ensuring contact with the world, including important people (I3, I22, I31, I36). In addition to connectivity, the smartphone is also a source of security, as older people worry about the expected negative events in the downward period of their lives and are significantly reassured by the knowledge that they are indirectly, but permanently, in contact with relatives or health care institutions. Some of the research subjects even personified their smartphone and called it a companion (I36) that is sometimes smarter than them (I51).

The first-level digital divide

The first level of the digital divide refers to technology, and the importance of the emergence of smartphones among elderly Hungarians in Romania is worth highlighting here. For as long as internet use required a PC or a laptop, older people had been severely affected by the first-level digital divide. Due to a lack of motivation and interest, those who did not directly benefit from the use of the internet did not invest in the acquisition of basic digital devices. Smartphones replacing mobile phones have contributed to the reduction of first-level digital inequalities in several ways. On the one hand, the smartphone has replaced the already “tamed” mobile phone, which was a necessary and useful tool for everyday life. On the other hand, compared to a computer, a smartphone is small, handy, and comfortable, which is an incentive for its use.

Level of digital skills and social support

Conversations with elderly Hungarians in Romania revealed that most of them learned how to use the internet features of their smartphones from their grandchildren or children (I1, I10, I22, I25, I45). However, they are also aware that using the internet would have many more opportunities for them if they understood it better (I1). Learning about smartphones and their internet features was primarily motivated by the need to keep in touch with their faraway children (I1, I14, I15, I16, I18, I20, I26, I45). In this case, the children also provided their parents with the necessary tools and taught them the basics of using a smartphone (I1, I3, I9, I45). Keeping in touch with old acquaintances, classmates, and co-workers for occasional conversations about the “good old days” is not to be overlooked either as a motivational factor (I13, I16, I26, I44, I8).

In the case of the early elderly, self-taught learning was common (I21, I22, I26, I29, I48). Self-taught learning generally had an incentive in the workplace (I6, I9, I27). Some of them were required to use a PC or laptop for work during their active period (I13). Thus, with the advent of smartphones, they already had sufficient self-confidence and interest in learning to use these devices on their own, at the cost of trial and error. When problems arise or they get stuck, however, fatalistic coping responses are typical for them, i.e., shutting down the digital device (I13, I15, I22, I25, I29).



Most of the respondents highlighted the abundance of information on the internet and its many benefits in different areas of life (I5, I6, I7, I20, I21, I26, I28, I30, I32, I34). Some also used the internet for fun and entertainment when they had the time (I22, I29, I30, I33, I36, I48).

A major barrier to digital device and internet use is a lack of English language skills (I25, I27, I53). Thus, respondents often stated that they did not understand “what the device wanted from them.” In such cases, the internet was usually stopped and the device shut down (I20). As they are not able to make optimal use of their older devices, the respondents did not consider it necessary to purchase newer smartphones with constantly updated features (I1, I10, I27, I35). Hence, although they have learned the basic functions of smartphones, their arc of adaptation to technology was later broken.

As far as barriers are concerned, health status has also played an important role in the development of internet use patterns, as several of the respondents indicated that they are able to use the smartphone only for a short time because they do not see well and get tired of browsing on the small screen (I13).

Respondents also included people who, due to their insufficient knowledge, considered the operation of internet search engines some kind of miracle, the miracle being that you just type in your question and the answer pops up (I5, I6, I11, I46).

In addition to the possibility of keeping in touch with people, most respondents also appreciated the capacity of internet channels to provide information. Many emphasized that they have a more encompassing view of the world and are more informed than before since they started using the internet (I1, I10, I11, I24, I27, I36). In such cases, the respondents did not have informational competence, so they considered the first news that popped up to be true.

In rare cases, respondents would also embody a victim mentality, i.e., they would demand that “someone,” a person or institution from outside, teach them how to use digital technology if society expects them to use it (I1). Lack of social support is a real obstacle that affects older people in the face of technological challenges. However, in this case, the focus is on dissatisfaction with society which expects older people to catch up digitally.

The majority of respondents were satisfied with the basic knowledge with which they operated their smartphones, and although they would accept additional instruction from family members, they would not be willing to pay for institutional training to develop their digital literacy (I2, I8, I 14, I22, I39). In rare cases, respondents with higher educational levels were willing to invest money in computer courses (I27), some had even attended such courses already (I27), especially during their active working years (I6). There was one competent elderly internet user acquainted with an IT professional whom they could turn to for help in the event of getting stuck (I13).

The second-level digital divide

The second-level digital divide is the result of the intertwining of digital skills and commitment. For our respondents, their motivation for internet use was mainly the possibility of keeping in touch with families, as communication situations that combine sound and image are seen as more satisfying than simple phone conversations. The second motivating factor for internet use was the acquisition of useful knowledge to support daily or professional activities. Those who took advantage of the information potential of the internet during their active period maintained this habit in the years after retirement. However, the majority of respondents had a number of



cognitive barriers, which has hampered the development of high-level digital competencies. Respondents had a basic level of digital skills that allowed them to perform the simplest orientation and communication tasks. The majority of subjects were passive users, as their digital practice was not shaped by an understanding of the logic of digital technology and media but by knowing the mechanical sequence of steps by which the desired knowledge acquisition or communication situation was achieved.

Even elderly people with higher educational levels are not generally digitally proficient. Digital competence above the basic level was common for those who have needed to use digital technology in the course of their work in the past and remained active after retirement, in some form retaining an interest in the ongoing developments of their profession. In this sense, the motivation to use digital technology has directly influenced the emergence and development of their competence.

The real-life benefits of using the internet

Using the internet alone promises little benefit if it is not done consciously and purposefully. In our study sample, users were already at a disadvantage in terms of secondary digital inequality. Thus, the resource-increasing benefits of internet use are only present in the case of some elderly Hungarian people in Romania. The majority of the respondents enjoyed two advantages of using the internet: namely, the ability to gather information on demand, and keeping in touch with family and friends.

Two-thirds of those surveyed (30 people) saw the benefits of the internet in enabling them to access news according to their own interests (I1, I10, I11, I24, I27, I36) or gather information of specific concern, and having wider access to information than ever before (I5, I6, I7, I20, I21, I26, I28, I30, I32, I34, I35, I39, I44). Most of the men read the news; women sought information on health, baking and cooking, gardening and plant care. For knowledge acquisition, respondents prioritized internet resources over traditional media sources (TV and newspaper), since they could not influence the supply of traditional media sources, while on the internet they could search for what was of particular interest to them. In this area, people with secondary and tertiary education show similar behavior. The need for information was heightened during the coronavirus epidemic, especially since official information in Romania was quite incomplete. Official sources only reported the number of COVID-19 cases and deaths. However, neither dissemination of information nor situation assessment or possible future scenarios were addressed. Thus, uncertainty, panic, and the need for information among the Romanian population gradually increased during the period of emergency. This public mood may also have influenced our subjects' responses.

The second area where users have experienced the benefits of using the internet was keeping in touch with family members. More than half of the respondents have mentioned that because their children work abroad and they do not have the opportunity to meet in person too often, video chatting provided them more joy than phone conversations. On the one hand, the internet video chat is free, so you can have longer conversations, which is very expensive in the case of a traditional phone call. On the other hand, due to their parasocial nature, video chats have the capability of creating a feeling and/or illusion of family togetherness. Even joint virtual home activities could be organized (e.g., cooking, having coffee or a meal together, playing and chatting with kids). Half of the respondents (24 people) mentioned that they regularly used this



feature of the internet; this activity was slightly more common for women than for men. This is in line with the traditional patterns of communication, according to which women are the keepers of the family nest and as such are responsible for staying in contact with relatives.

The third way respondents took advantage of the internet has been to gather the information they needed in their daily activities, or spurred on by professional or individual curiosity. They most often searched for DIY or educational videos. Watching DIY videos helped with practical problem-solving and learning. One third of the respondents (14 people) have used this option. In their view, the knowledge gathered in this way is timelier than the descriptions found in books.

None of the respondents turned to the possibility of institutional learning or political participation in online platforms. Five respondents have used the internet for communicating with authorities. Three of these five individuals established an online relationship with the authorities because of their occupation, two for individual problem-solving. The doctor contacted the health insurer, the accountant the financial authorities, and the teacher the directorate of education, while the other two private individuals contacted the forestry authorities and the mayor's office, respectively. The elderly people involved in our research emphasized that they have more trust in the personal form of administration and that, in their view, state agencies exist to address the concerns of the population locally.

The third-level digital divide

The third-level digital divide refers to the ability of an individual to reap the benefits of online activities in real life. However, it is important to mention that internet activities can benefit users if they have traditional resources at their disposal, which can be augmented by the opportunities offered by the internet. The answers of the respondents support the reality of this theoretical assumption. Due to the difficulties posed by the coronavirus epidemic, our arbitrary sample was made up of mostly Hungarians in rural areas with no higher education or people who retired from non-intellectual occupations. These individuals were characterized by a limited availability of traditional resources, and did not, in fact, have the conditions that would have encouraged the resource-building potential of online activities in different areas of life.

In the course of our research, the beneficial potential of internet activities was monitored in six areas: personal development, economic gain, social networking, training and learning, political participation, and public administration.

Based on the data, it can be concluded that the examined elderly Hungarians in Romania utilized internet platforms for their individual development and the maintenance of their social networks. In the field of individual development, online activities have contributed to increased awareness and openness, as well as to spending their free time more pleasantly. However, these rarely resulted in lifestyle changes or, more generally, major changes in the daily lives of older people. For those with a secondary education, the internet was seen as necessary to keep in touch, but it was also dispensable, since maintaining a network of close relationships can also be facilitated by using the phone. Persons with a higher education who used the internet in their early old age and were still pursuing professional activities recognized the internet's potential for their individual development and building professional relationships.

Harnessing the potential offered by online activities in the economic field can be seen as an untapped opportunity. At this age, people are no longer looking for work, which nowadays is



mostly done online, nor did they engage in any gainful activities hosted by online platforms. Online shopping and online banking were not typical either. Most people claimed they did not even have the kind of money that would require banking. Only in a few cases have respondents reported purchasing cheaper products from online stores. Still active subjects with tertiary education gained a financial advantage through the internet by gathering professional information that would otherwise have required a financial investment.

In the social field, there have been real benefits from online activities for those surveyed. However, respondents kept online contact only with members of their close family circle. Internet connectivity has been used to a small extent to maintain a loose network of personal connections. They did not contact people with similar interests, participate in self-help groups, or engage with local communities online. Social capital-building activities are not typical for the real lives of the respondents either, although we observed that they attributed their connection-deprived situation to the spread of digital technology.

The literature on aging highlights that older people have difficulties with learning, and if they were not used to practicing any activities for intellectual development at a younger age, they will not begin to do so in their old age (MARÓTI 2013). The interviews reveal that the elderly Hungarians in Romania are aware of their learning and resocialization difficulties, and some of them even displayed a sense of guilt about this. However, the main obstacle to learning is the lack of motivation, the disinterestedness of old age (NAGY 2011).

Active participation in political life did not even appear among the needs of the studied population. However, this was not caused by the opacity and obscurity of online spaces; this issue has been thoroughly studied within other disciplines.

The last area in which we studied the role of online activities was public administration. The online form of official contacts in Romania is still in its infancy (BAKÓ 2017). In fact, regardless of digital literacy, not too many issues can be resolved online. Thus, it is not a viable option even for the digitally savvy. There are some official platforms whose use is mandatory for certain professional groups, since they report to the public authorities through them, but these platforms have a professional and closed character.

Respondents did not link their digital lagging to their lagging related to other resources. Instead, they believed that internet use had little real benefit to them. And although the majority of the respondents found that digital technology makes their everyday lives easier, with a few exceptions, they also stated that the absence of it would not constitute a real loss.

Based on VAN DEURSEN and HELSPER'S (2015) model for the reproduction of digital inequalities (presented on page 4), some final theoretical assumptions can be made regarding the internet use of the elderly Hungarian population in Romania, which require further evidence:

- Various traditional resources available in old age (individual, material, social, political, educational) have an impact on the real-life benefits of digital activities. The more diverse one's traditional resources, the more likely their digital activity will also be meaningful and enriching.
- Access to traditional resources is necessary but not enough for meaningful and profitable digital activities. In order to increase one's traditional resources through digital activities, they also have to be able to: a) access and operate digital technology at a high level; b) make meaningful and expedient use of the opportunities offered by digital platforms; c) have a high level of digital competence; d) feel the urge to use digital technologies to increase their existing resources, i.e., be motivated to use digital technology appropriately.



CONCLUSION

The research presented here examined the third-level digital divide of elderly (65+) Hungarian people in Romania. The data collection for the research was carried out in June 2020 in the form of online interviews. The accessibility limitations of the subjects resulted in the predominance of a certain social segment – persons with secondary education, mainly living in rural areas – in the sample, which can be considered a shortcoming of the present research. At the same time, this bias of the sample sheds light on the multiple disadvantages of elderly rural Hungarians in Romania regarding the examined issue.

The first-level digital divide of the surveyed subjects improved significantly after 2010 due to the proliferation of smartphones, since the majority of elderly Hungarian people in Romania had their own personal smartphone, or there was a person in the household who had one. As service providers for smartphones also provide mobile internet, all of the respondents had (mobile) internet service.

There was a significant division in the study group in terms of motivation for use and digital literacy. The answers of the respondents showed that they managed to operate their devices at a basic level but could not perform more complex tasks on digital platforms. Elderly Hungarians in Romania were taught by their children and grandchildren to use smartphones and laptops. However, both parties were content to offer and accept only the simplest operating advice. Older people believe that the digital skills they possess are sufficient for them. Few felt the urge to improve in this area. This was illustrated by a reduced use of smart devices in the target group, and presumably there is no prospect of changing this situation for them on their own. Another obstacle to development is the lack of English language skills, which shaped their digital practice through mechanical learning rather than comprehension. At the same time, due to their health status – as some of them do not see well or are in pain – they did not have the patience to gain significant experience in the digital world.

Under these circumstances, elderly Hungarian people in Romania were a social group clearly lagging in terms of the third-level digital divide. The explanation for this is partly to be found in the limits imposed by the characteristics of their age and partly in their socio-economic situation. The conversations revealed that the subjects rigorously adhere to their normal lives and habits developed earlier, a repertoire which does not integrate the use of digital technology.

The results also confirmed that examining and explaining digital inequalities is meaningless without taking stock of social inequalities. For the persons in this study, there is a connection between the degree of digital competence, the structure and usefulness of digital activities, and the inequalities stemming from traditional social stratification dimensions (economic, cultural, individual), all of which are determinants of the emergence of the third-level digital divide (RAGNEDDA 2018, 2019; VAN DEURSEN – HELSPER 2018 VAN DEURSEN – HELSPER 2015).

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