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50+ IN THE WORLD OF COMPUTERIZATION, CAN WE TALK ABOUT THE DIGITAL DIVIDE?

A b s t r a c t. The contemporary scale of social space computerization should go hand in hand with the possibilities of implementation of new technologies in any group. In fact, the desire to make changes meets the wall of opposition from both the technical and digital divide problems associated with the lack of digital literacy. The article presents the scale of the problem of the digital divide of seniors representing a wide audience of people with no practical possibility of using a computer or the Internet.

Key words: Senior citizens; digital divide; information technology

The process of implementing IT solutions into the social space in Poland that started in the 1990's has in its scope digitalization of the administration as well as the education space both in the private and public sphere. Today there is practically no possibility of functioning and developing without using the computer and the Internet. However, the experiences of the recent years show that Poland's development potential only to a slight degree is consolidated by good and efficient implementation of IT into the public space; both in the technical sense – there is not enough equipment allowing the use of technological innovations or the Internet, and in the sense of the use of human potential – the scale of the digital divide is increasing. In the so-called Poland B there are still “gaps” in the access to the most recent technologies.¹ The term “Poland B” is concerned with both the purely material question of the access to IT tools, and with the skill of using them. The scale of possibilities of using information technologies concerns both the old and the young from poor small town and villages, which (contrary to popular

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¹ Roland Łukasiewicz, “Digital school and the digital exclusion in Poland,” in *Topical issues of science, economy and education in the XXI century* (Samara, 2012), 99.

opinions) digitalization has not yet reached. The scale of changes in this direction is presented in Table 1.

Table 1. The use of the computer and the Internet in households

Index	2006	2009	2010
Percentage of households equipped with a computer	45	66	69
Percentage of persons using the computer every day	31	39	42
Percentage of persons reading on the Internet or downloading from it	16	18	17

Source: The author's own compilation on the basis of Eurostat 2011, Ministry of Administration and Digitalization, Department of Information Society, *Spoleczeństwo cyfrowe w liczbach*, Warszawa 2012.

It is not without a cause that in the Table downloading books from the Internet is mentioned, because it is an element that is typical of today's behavior on the Net in the context of the increase of adult and functional illiteracy whose scale is directly proportional to the increase in digitalization.²

We will understand the concept of the digital divide as: 1) lack of access to the Internet (technical possibilities, access to the Net and to devices like the computer, laptop or tablet); 2) lack of competences and skills possessed by persons who could, in principle, use the advantages of digitalization; 3) lack of chances to improve one's competences by systemic actions (trainings, education, administration initiatives).

It is a paradoxical situation when in the 21st century in a Central European country we are deprived of digitalization in the same way as of water supply or sewage systems. The reasons of this state should be looked for, among others, in a lack of coordinated actions taken in the sphere of the implementation of IT and in underestimating the importance of the civilization breakthrough that is occurring owing to the digitalization process. The future actions in this sphere should be directed to all participants in the social life, especially taking into consideration persons who are in an economically productive age, and, because of the raising retirement age, persons who are nearing that age. Seniors are today a group with the least digital competences, which determines their social exclusion, and, in ever higher degree, professional exclusion.

² Roland Łukasiewicz, "Analfabetyzm wtórny, ekskluzja czy inkluzja społeczna," in *Wybrane zagrożenia społeczne wyzwaniem dla ekonomii i nauk o zarządzaniu*, edited by Roman Lusawa (Warszawa: Europejska Wyższa Szkoła Informatyczno-Ekonomiczna w Warszawie 2012), 53-70.

1. THEORETICAL ASPECTS OF EXCLUSION

The digital divide is defined as the difference in the access to and use of computers and the Internet, taking into consideration the diversity in the gender, age, social-economical status, education, income, profession etc., as well as the spatial/geographical diversity. In the modern world – ever more dominated by information and by modern media – it is a major problem, especially when it does not decide only about the exclusion from a certain social sphere, but because it may efficiently marginalize individuals from the social, cultural and professional environment.

The term “digital divide,” sometimes referred to as “the digital divide gap,” was first used as a theoretical conception at the beginning of the 1990’s. As it may be seen, as soon as the dawn of the functioning of the digital (Internet) society a clear distinction could be seen between the groups participating and not participating in the digital development. From the beginning it was the subject of a debate between theoreticians trying to explain something that was only coming into being. This led to working out the most adequate, widely accepted basis concerning the digital divide, that is the “diffusion of innovations.” The basis of the diversity of definitions is the different attitudes towards the problem of the scope of the kinds of the available information and communication technology, the participating subject and the scale of participation – starting with the access and ending with the efficient use and a real influence on the reality of social communication.

Taking into consideration the theory of the diffusion of innovations Martin Hilbert defines the digital divide as a social network of spreading digital technologies. Figure 1 shows two features of the social space – filled and empty, as examples of digital participation and the digital divide between the polarized social groups of the poor and the rich. The dualism of the occurrence of participation in the digital world may be defined as “exclusion” and “digital divide.”³

³ See Martin Hilbert, *The end justifies the definition: The manifold outlooks on the digital divide and their practical usefulness for policy-making*. *Telecommunications Policy*, 35 (8), 715-736, <http://dx.doi.org/10.1016/j.telpol.2011.06.012> [accessed: 22.03.2013].

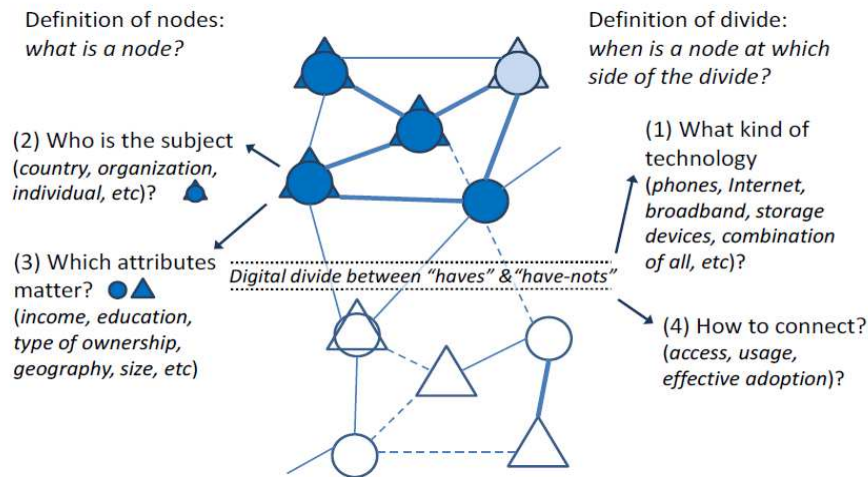


Fig. 1. Persons having and not having access to new technologies

Source: 1. Kind of a digital object/tool (phone, computer and the like). 2. Who is the subject of the innovation network – country, organization, individual subject. 3. Significant attributes of participation/exclusion. 4. Effective exclusion and adoption of the subject.⁴

Figure 1 shows the way the nodes in the digital participation network and the digital divide are defined, and the places where participation and its lack occur. The schematic presentation of the problem of the digital divide is only a general image of the socially complicated issue of participating in the global system of the information society. The division not only has the character of polarization of the rich/participants and the poor/excluded; it also has deeper layers of elements shaping participation or lack of it. This includes, among others, the geographical situation, political system, economic determinants and possibilities to act, economic aspects of investing in the infrastructure and in information technologies, and so on. Moreover, the speed with which new technologies are available is a significant element of today's development. Practically for a couple of dozen years we have been in the state of permanent industrial-information revolution that in fact we do not notice. But in a significant way it influences, for example, the fact that what is new and necessary is kept up with in order not to be digitally excluded. Changes in the kind of computer equipment, in the software, satellite devices or simple phones are only some examples of this speed. What today seems to be the top of the information society, tomorrow may make us take another lesson of new technologies.

⁴ Ibid.

In a society where already there are groups that are alienated from the information process this situation may be an exceptional barrier for further development. It is the more so because the Internet not always serves actions connected with development and science. We understand the digital divide in this context as the process of a gradual decline in participating in social relations until they are completely broken, or as being completely cut off from a social group. "The digital exclusion has similar features as the social exclusion that is, among others, the object of analyses carried out by the National Strategy of Social Information that treats the social exclusion as a situation in which there are no possibilities of playing social roles by an individual or a social group, and of using public goods and social infrastructure, gathering resources and obtaining incomes in a decent way."⁵ Analogous elements are determined by the digital divide, ending with complete marginalization. The concept of "digital divide" has a broader definition aspect⁶. In developed countries a division may be seen of the social group into individuals who have access to modern communication means, and those who do not have it – or who do not want to have it. The main factor that differentiates people here is usually the wealth of the given social group.⁷ The digital divide consists not only in the very access to digital technologies, but also in the ability to use them; which means that one does have access to the tools but does not have the proper competences.

The digital divide is also, or perhaps first of all, lack of competences to use the Internet (combined with the lack of access to it) and computer software. This factor determines the scope and level of a modern man's functioning. The universal conviction that using a computer and the Internet only serves entertainment, and not using these media involves exclusion from the digital reality is just a myth. The digital divide (exclusion) is connected with the alienation of an individual or of groups from social reality, and not only from the access to entertainment, current information or gossip portals.

⁵ Narodowa Strategia Integracji Społecznej, ec.europa.eu/social/ajax/BlobServlet?docId=3725&langId=pl [dostęp: 27.03.2013].

⁶ See Pippa Norris, „Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide,” in Piotr Gawrysiak, *Cyfrowe wykluczenie treści*, bbc.uw.edu.pl/Content/3/08.pdf [accessed: 22.03.2013].

⁷ Cf. Hilbert, *The end justifies the definition*, and David J. Gunkel, “Second thoughts: toward a critique of the digital divide,” *New Media & Society* 5 (2003), nr 4; Gawrysiak, *Cyfrowe wykluczenie treści*.

Table 2. The Digital Divide

Access to new technologies	Using new technologies
ICT – Information and Communication Technology	Technological and social skills
Social access	Social use
Awareness of the access and possibilities Language Contents Localization	Searching for information Citizen involvement Mobilization of resources Social movements

Source: The author's own compilation on the basis of: www.magdalenaszpunar.com [accessed: 12.05.2015].

Another myth is the conviction that the problem only concerns elderly people, with the limit of old age, or in other words: of maturity, being put at different points, – sometimes people of the category of 50+ are indicated, but more often senior citizens in the generation of grandfathers and old age pensioners are meant here, – which only consolidates the myth about the unimportance of the digital divide as compared to homelessness or unemployment. Which is the same as treating seniors as people already excluded and in fact “redundant” from the society. Today the issue of the digital divide also assumes the forms of inherited exclusion and marginalization, like in the case of reading books.⁸ Following this course of thinking, we could also exclude younger persons who function, for example, in the sphere of economic activities.

The situation is analogous with the stratification model assuming that with the development of technology there is a differentiation in the level of its use by particular groups. The model is “shaped” by the income criterion occurring between higher and lower social layers, and instead of getting smaller it will remain at the same level. In wealthy groups the *diffusion of technology*” starts earlier and ends, as a rule, at a higher level of saturation than in the case of groups with lower income. The stratification model has a similar shape to the model of inheritance of exclusion.⁹ If technology spreads according to the stratification model, the Matthew effect appears; that is people who have had access to the technology from the very beginning of its existence make bigger profits from using it than those who obtain the access later.¹⁰ The obtained possibilities are often reflected both in the

⁸ Łukasiewicz, *Digital school*.

⁹ Ibid.

¹⁰ Elżbieta Kryńska, Łukasz Arendt, *Wykluczenie cyfrowe na rynku pracy* (Warszawa: IPiSS, 2010).

quality and in the scope of participation – it is the permanent digital delay that is mentioned in the present article.

In the context of the consequences of the decrease in the birth rate and the transformations occurring in the world economy the society cannot afford excluding anybody from the active part of the society; and from the humanistic point of view this may not concern any living creatures. Defining the digital divide is at present problematic, it is similar to defining migration or homelessness; the essence of the theoretical approach is the ability to grasp the changes occurring in the everyday information space and their influence on the social reality.

The definition of the diffusion of technology that determines the occurrence of the digital exclusion phenomenon is essential for the discussion of the digital divide (digital exclusion). The theory of diffusion defines the process of the spreading of technology in a way that is not equal for all its potential participants. In consequence a solution of the exclusion problem is searched for in actions that are aimed at supplying all citizens, economic subjects and institutions with technology (in the case of ICT – computers and the Internet).¹¹

2. THE DIGITAL DIVIDE IN POLAND

The issue of the digital divide in various social groups is a significant problem in modern times. This is confirmed by, among others, the fact of including this issue in one of the most comprehensive studies of the condition of the Polish society, that is in the Social Diagnosis 2011.¹²

People susceptible to digital divide:

- 1) people with a low material status, ones who cannot afford buying computer equipment and software;
- 2) people with little education or no education at all, who have no possibility of training;
- 3) people who are afraid of technological novelties;
- 4) people who consciously choose digital exclusion and ones who are not aware of the significance of being excluded from the information society;

¹¹ Ibid.

¹² Dominik Batorski, *Korzystanie z technologii informacyjno-komunikacyjnych*, in: *Diagnoza Społeczna 2011. Warunki i jakość życia Polaków*, report, edited by Janusz Czapiński, Tomasz Panek (Warszawa: Wyższa Szkoła Finansów i Zarządzania, 2011).

5) elderly people who are partly removed from the main stream of the social life (pensioners, including old age pensioners, the disabled).

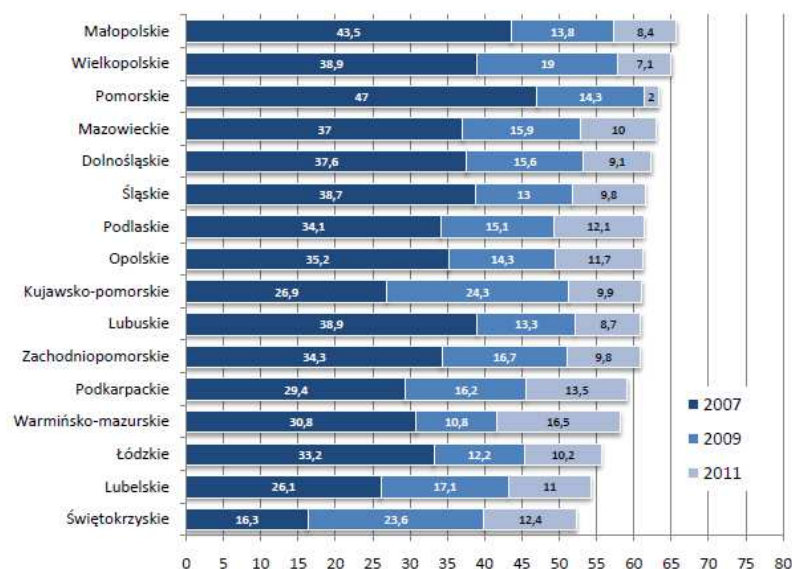
The digital exclusion affects persons who are in the sphere of the social exclusion or marginalization, and the ones who cannot, despite the existing possibilities, make use of the present development of the information technology. The digital exclusion refers then to the possibility of regularly accessing digital and information technologies and – which is important – to possessing digital competences that allow using digital goods effectively. The digital exclusion of elderly people is manifested in two spheres: the first of them is concerned with lack of access to the Internet and to the equipment that facilitates the use of this medium, and the second one is lack of the skills that allow using them – the digital competences. Today exclusion occurs most often in the latter sphere. Apart from this, although digitalization of villages and small towns is progressing well, also the latter sphere, that is lack of devices and of the access to the Net, is a considerable problem.

On the basis of analyses carried out by the Ministry for Digitalization and of statistical data supplied by particular local governments,¹³ it may be concluded that the place of residence, the class of the place of residence and the income have a great importance for the functioning in the digital sphere. New technologies are more often present in bigger towns and in households with high incomes. “In the biggest towns 73% households have access, and in the country only 52% ones. The difference between one fourth households with the highest incomes and those with the lowest ones is more than double.”¹⁴ Examining the issue of the social access in the categories of administrative divisions, the situation is best in the Lesser Poland Voivodeship, where 2/3 households have access to the Net (the access to the Net is understood here also as possessing computer equipment). On the other hand, the situation is the worst in the Holy Cross, Lublin and Łódź Voivodeships. The mentioned difference between the voivodeships in the so-called Eastern Wall and the rest of the country also occurs (it is shown in Chart 1). In the geographical aspect the greatest differences, amounting to about 9 percentage points, are noted between the households in the north-west and the ones in the eastern region of Poland.¹⁵

¹³ See digitalization in Mazovia.

¹⁴ *Diagnoza Społeczna 2011*.

¹⁵ Ministerstwo Administracji i Cyfryzacji, Departament Społeczeństwa Informacyjnego, *Społeczeństwo cyfrowe w liczbach* (Warszawa, 2012).



[Małopolskie – Lesser Poland; Wielkopolskie – Greater Poland; Pomorskie – Pomerania; Mazowieckie – Masovia; Dolnośląskie – Lower Silesia; Śląskie – Silesia; Podlaskie – Podlaskie; Opolskie – Opole; Kujawsko-Pomorskie – Kuyavia-Pomerania; Lubuskie – Lubusz; Zachodniopomorskie – West Pomerania; Podkarpackie – Subcarpathia; Warmińsko-mazurskie – Warmia-Masuria; Łódzkie – Łódź; Lubelskie – Lublin; Świętokrzyskie – Holy Cross Province.]

Chart 1. The digital divide according to Voivodeships and the scale of the growth in the years 2009-2011

Source: *Diagnoza Społeczna 2011*.

The research carried out in the first quarters of 2011 showed that two thirds of households in Poland had a computer. Over 61.1% households has access to the Internet. An increase in the number of computerized households can be still observed, however, the increase is slower than in the previous years.

The formation of an information society still faces considerable problems of the technological and competence nature. Table 3 presents the situation in the years 2009-2010.

Table 3. The use of a computer and the Internet in households

Indexes	2006	2009	2010
Percentage of households having access to the Internet	36	51	57
Percentage of the area of Poland having the Internet connection	60	75	77
Percentage of the area of villages in Poland having the Internet connection	40	53	58

Source: The author's own compilation on the basis of Eurostat 2011.

In the issue of the scale of the digital divide there are at present a lot of academic works and studies concerning this sphere. However, the problem is best reflected in the analyses carried out by the Ministry of Digitalization and the recent *Diagnoza Społeczna 2011*. From these data it follows that 60.7% people at the age of 16 and older use a computer, and the use of a computer is practically tantamount to the use of the Internet. People of 50 or more years old more rarely have access to the Internet and fewer of them have the equipment allowing such access. Differences between people who use the Internet and those who do not are most significant in the categories of age and education. At the age of 16-24 93% people use the Internet, and at the age of 65 or more years only 11%. This is presented in Chart 2.

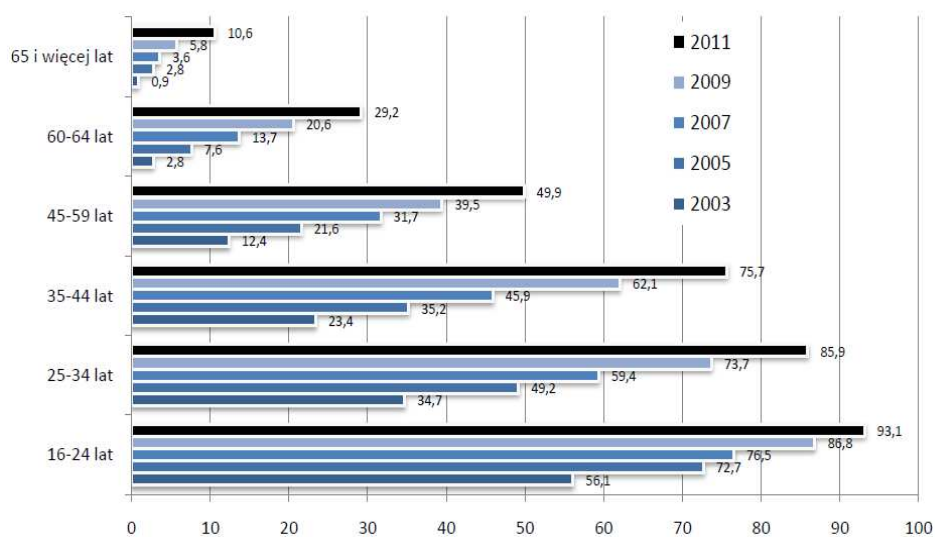


Chart 2. The use of the Internet
Source: *Diagnoza Społeczna 2011*.
[65 i więcej lat – 65 and older]

Possession of computer equipment in the household in most cases is determined by the fact that there is a young person in the family. The above mentioned slowdown in implementing the IT is also seen in the next years. It is a consequence not only of the uncoordinated systemic actions and frequently incorrect projects drawn up by the Ministry, but also of the general slowdown of the economy caused by the crisis.

According to the data of the quoted social diagnosis, at present only 8% households do not have access to the Internet. In 2009 there were 15% households that were computerized, and in 2003 only every second household equipped with a computer had access to the Internet¹⁶. At the same time, according to the respondents' declarations, in 2010 about 32% inhabitants of Poland had never used a computer. The use of a computer is the least popular in the oldest and least educated part of the society. In the case of people aged 65-74 about 85% of them had never used a computer. For a comparison: in Norway in the same age group it was only 19%, and in Luxemburg and Sweden – 24% and 25%, respectively.¹⁷

Table 4. The use of a computer according to the categories of age and gender, Poland – EU

Indexes	Poland	EU
People of 55-74 with higher education	1%	20%
Women 55-74	15%	31%
Men 55-74	23%	44%
Women with lower education	35%	39%
Men with lower education	43%	49%
People of 25-64 with a lower education	10%	41%
The unemployed at the age of 25-64	41%	56%

Source: The author's own compilation on the basis of Eurostat 2011.

As it can be seen in Table 4, in some categories a real “digital gap” occurs. A comparable scale of the digital exclusion of persons with lower education in Poland and in EU countries is an interesting element. This is a feature of practically every country and every society. The situation looks different in the case of age categories among people with lower education aged between 24 and 64 years of age: one may talk about complete marginalization in the case of Poland.

¹⁶ *Diagnoza Społeczna 2011.*

¹⁷ Ministerstwo Administracji i Cyfryzacji, Departament Społeczeństwa Informacyjnego, *Społeczeństwo cyfrowe w liczbach* (Warszawa, 2012).

Among people who are active on the labor market one fifth had never used a computer (manual workers, as a rule). Among people with higher education only 1% had never used a computer, while it was 58% among people with primary education. This confirms the thesis that the criteria of age, education and place of residence have a significant effect on the shape of the participation level in the digital world.

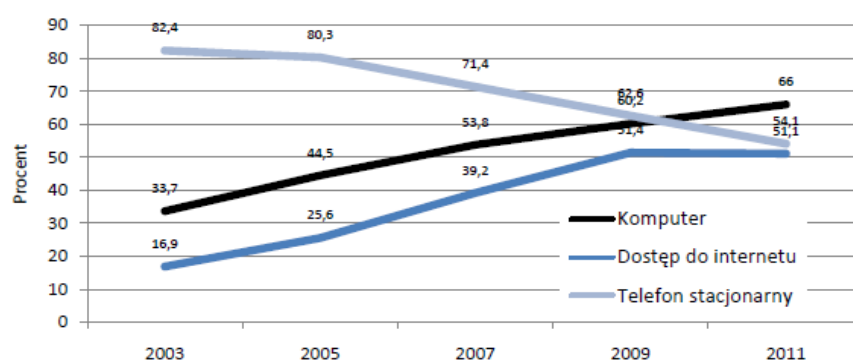


Chart 3. Households having a computer, access to the Internet and a landline phone in the years 2003-2009

Source: *Diagnoza Społeczna 2011*.

[komputer – computer; dostęp do Internetu – access to the Internet; telefon stacjonarny – landline phone]

One of the main causes of the lack of computer equipment and access to the Internet are the financial reasons. In places that are not included in the national digital network the reason is lack of the possibility of connecting to the Internet.

The type of family is an important element of participation in the digital development. If in a household there is a child/student, most often he or she owns a computer or equipment that allows participating in the Internet and generally in the use of new technologies.¹⁸ The disproportions between households with young people and without ones are smaller by half and they are about 30 percentage points.¹⁹

¹⁸ Roland Łukasiewicz, *Bezpieczeństwo w sieci – dzieci i dorośli wobec zagrożeń*, in *Cyberprzestępczość i ochrona informacji*, edited by Brunon Hołyst, Jacek Pomykała (Warszawa: Wyższa Szkoła Menedżerska, 2012).

¹⁹ Ministerstwo Administracji i Cyfryzacji, Departament Społeczeństwa Informacyjnego, *Społeczeństwo cyfrowe w liczbach* (Warszawa, 2012).

According to the data in *Diagnoza Społeczna 2011* this is a situation that is encountered in nearly 90% households. The situation is diametrically opposite with one-person households or with households where elderly people live. A computer and the Internet are to be found there decidedly most rarely. The situation is similar in the households of broken families or where one person lives only. As *Diagnoza Społeczna 2011* indicates, the situation is not improving, but it is worse every year. The lack of universal availability of technologies is perceived as an essential factor of the digital divide, and also as a limitation of the access to public services offered through the Internet. At the same time, as it was mentioned above, many actions aiming at popularizing new information technologies and preventing the digital divide are not well adjusted to the real problems.

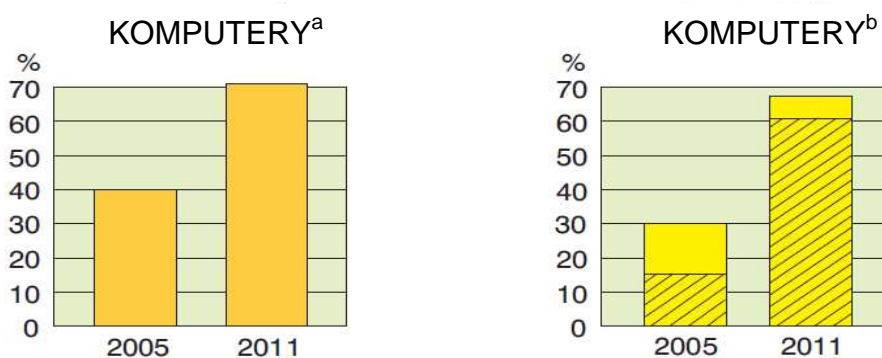


Chart 4. The scale of participation and changes in the Internet as depicted by the Central Statistical Office (Główny Urząd Statystyczny)

Source: Central Statistical Office (GUS), Statistical Yearbook (Rocznik Statystyczny) 2011: *a* – data concerning households with at least one person at the age of 16-74, *b* – desktop computers, laptops, palmtops, PDA). The data concern access to the Internet by means of desktop computers, laptops, palmtops and cellular phones, and also video game consoles and other devices.

The conclusion is that it follows from the data supplied by the Central Statistical Office and *Diagnoza Społeczna* that access to the Internet depends mainly on education and age, and also (to a lesser degree) on one's social-professional status, place of residence and income.

3. SENIORS IN THE DIGITAL ENVIRONMENT

We are participants in the gradual aging of the society. The process implied by the period of decrease in the birth rate determines the necessity of a later retirement and the need of a stable and growing level of implementation of IT into the social private and professional space.

Predictions made by the Central Statistical Office indicate that in the years 2008-2035 the number of Poles will drop by nearly 2 million, which will make the problem even more acute. Among others, the group of people above 65 years of age still working will grow. This situation is a consequence of a biologically longer lifetime, and also of the increase in the knowledge they will possess. Being digitally excluded a man will not be able to remain in his job, or his job will not be efficient enough. But Chart 5 shows that in people who are 50 or more years old participation and the ability to use the Internet drastically decreases. With the age fewer and fewer computers are owned, and the use of new technologies is reduced even more. Very often after passing a certain age threshold we withdraw not only from the social, but also from the technological life. When we observe the present economic and social situation we see that a certain form of alienation is justified. It is because we escape from some definite situations to a secure space of one's old-age or disability pension. People who have reached their retirement age often exclude themselves from the digital sphere thinking that they do not have to use these goods (see: the report drawn up by the Ofcom Consumer Panel "Older People and Communications Technology"). In turn, those who would like to participate, often for financial reasons do not have this opportunity. The digital exclusion of seniors in an ever higher degree causes their isolation from a wider social context and participating in all its changes.

At present this does not concern to such a degree people entering their retirement age since it has been significantly moved. This concerns one considerably big group of people who are already outside the professional main stream.

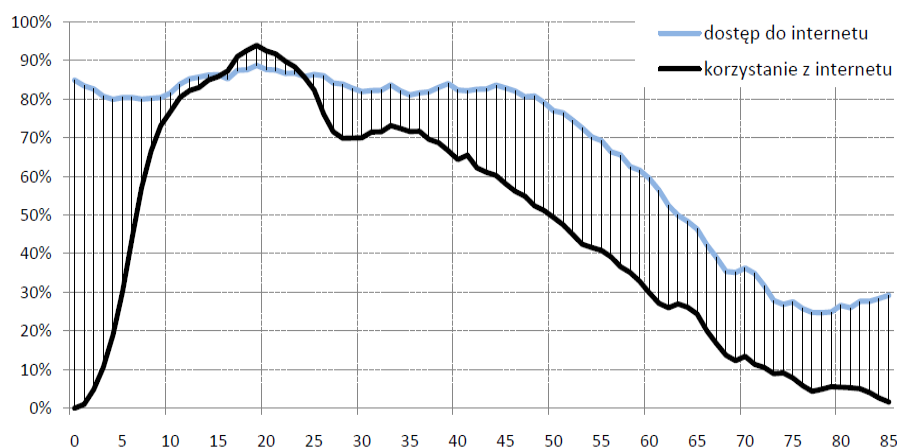


Chart 5. Participation in new technologies depending on the age

Source: *Diagnoza Społeczna 2011*.

[dostęp do Internetu – access to the Internet; korzystanie z Internetu – use of the Internet]

The elements that are mentioned above that shape the participation in new technologies in Poland define the significant category of the age as the one that determines participation in the national process of digitalization and in the individual participation in the development of new technologies – data from the Eurostat. In Poland today there are about 13 million people who are in the category of 50+, and 78% of this category, that is more than 10 million people, do not use the computer or the Internet. It is impossible not to recognize it as the digital exclusion. The issue of the digital exclusion of seniors is significant in the context of the competitiveness of Polish economy and of implementing the theses submitted by the Digital Agenda for Europe.

The ability to use modern technologies is at present necessary. Being on the labor market, social communication, transmitting information, all these activities are today subjected to the digital conditions. One cannot function fully in the analogue world, unless he wants to be isolated. The 50+ generation is a social group that underwent a kind of digital revolution in the 1990's. For many of these people a computer, and later the Internet, are tools that were not necessary in their professional work, or there were no systemic tools that could introduce these people into the “digital environment”. These people also often thought that the ability to use new technologies was not necessary for them at all. The consequences of such a state can be seen in the results of statistical research presenting the scale of their exclusion.²⁰

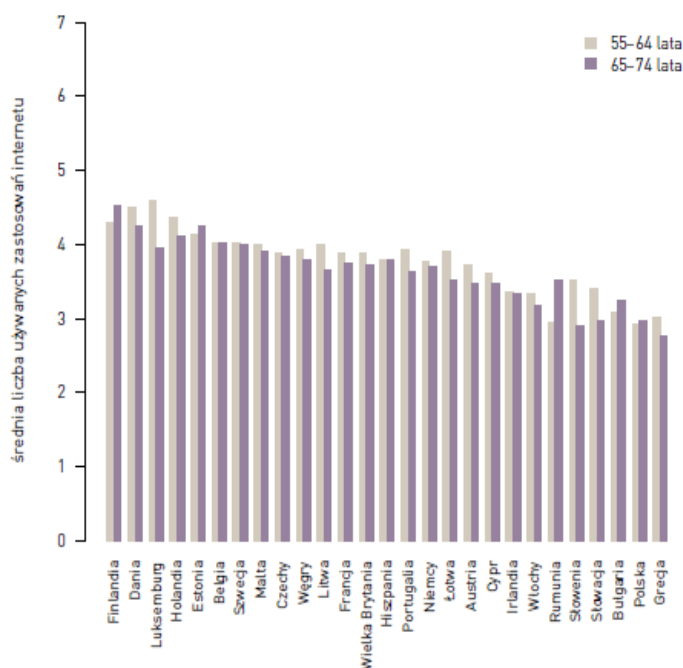
²⁰ Batorski, *Korzystanie z technologii*.

This social group's problem is not only their problem, but first of all a social problem. Every alienated individual is a real loss for the society as they generate serious expenses without contributing anything. In view of the aging society "the 50+ generation will be an ever more numerous social group. Hence it is unusually important to build the digital awareness in people aged 50+ and popularizing the Internet among them."²¹

From the Eurostat's data it follows that with respect to the information exclusion of seniors Poland is still in one of the last places.

As it can be seen in Chart 6, the number of the used Internet applications is one of the lowest in Poland. As applications we understand here actions that are connected with searching for information, with the ability to use the possessed software etc. The very availability of new technologies is not the basis of participating in the global network and in new technologies.

This would be similar to possessing a car without the ability to drive and without a driving license. Hence, the way of using the computer and the scope of using modern technologies – what the computer and the Internet is used for – should be taken into consideration. Chart 7 presents the scope of competences that seniors have.



²¹ Ibid.

Chart 6. Participation in the Internet Poland – EU

Source: A compilation on the basis of the Eurostat 2011.

[średnia liczba używanych zastosowań internetu – average number of the Internet applications;
lata – years of age]

Chart 7. Seniors' digital competences

[kopiowanie/przenoszenie pliku lub folderu – copying/moving a file or a directory; korzystanie z narzędzi do kopiowania lub wycinania i wklejania – using the functions of copying or cutting and pasting; używanie funkcji matematycznych w arkuszu kalkulacyjnym – using mathematical functions in the spreadsheet ; instalowanie nowych urządzeń (drukarek, skanerów itp.) – installing new devices (printers, scanners); rozwiązywanie problemów zw. z pracą komputera – solving problems connected with the functioning of the computer; podłączanie komputera do sieci lokalnej (LAN) – connecting the computer to the local area network (LAN); programowanie w specjalistycznym języku – programming in a dedicated language]

Source: Using ICT in households by private individuals, Central Statistical Office.

As the data shows, digital skills are focused first of all on simple operations/activities on basic programs. An important problem resulting from behaviors on the Net and from the possessed abilities is the use of new technologies for work, for self-improvement, for shopping or for bank operations. In the latter ones often younger people, sometimes much younger, replace seniors. This may imply that in the digital world threats occur.²² Behaviors in the situation when using the Internet is necessary are presented in Chart 8.

²² Łukasiewicz, *Bezpieczeństwo w sieci – dzieci i dorośli wobec zagrożeń*.

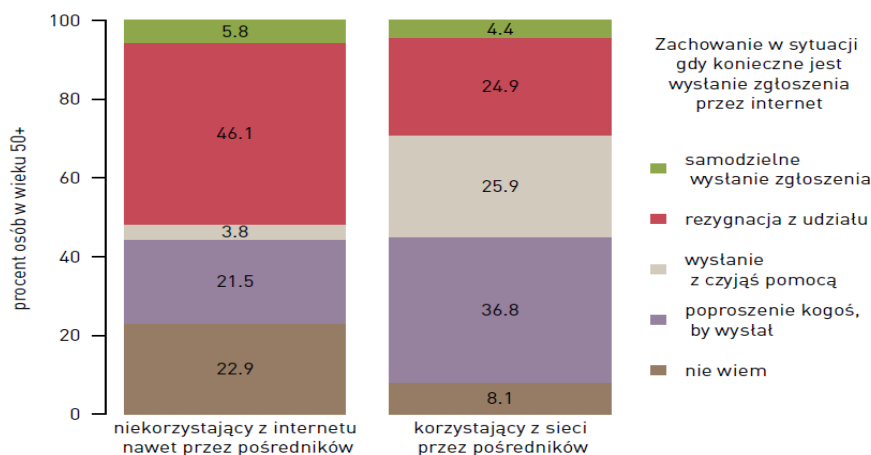


Chart 8. Behavior in the situation when using the computer is necessary

Source: *Między alienacją a adaptacją Polacy w wieku 50+ na rynku pracy*, the opening report filed by Koalicja „Dojrzałość w sieci”, ed. D. Batorski [et al.], Warszawa: UPC Polska 2010.

[procent osób w wieku 50+ – percentage of people aged 50+; niekorzystający z internetu nawet przez pośredników – people aged 50+; not using the Internet even through helpers; korzystający z sieci przez pośredników – using the Net through helpers; zachowanie w sytuacji gdy konieczne jest wysyłanie zgłoszeń przez Internet – Behavior in a situation when sending an application by the Internet is necessary; samodzielne wysłanie zgłoszenia – sending an application on one’s own; rezygnacja z udziału – giving up one’s participation; wysłanie z czyjąś pomocą – sending a file with somebody’s aid; poproszenie kogoś, by wysłał – asking somebody to send a file; nie wiem – I do not know]

From the data in Chart 8 it follows that the skills of using computers or the Internet are still rare. Against this background only children and young people stand out, as they acquire the knowledge and skills at school and by contacting their peers who have access to computers and to the Internet²³.

Moreover, as it was already mentioned, it is important what we use the possessed tools for. This is presented in Table 5.

²³ *Diagnoza Społeczna 2011.*

Table 5. What is a computer used for?

Item	2005		2010		2011
	total	towns	towns	Villages	
by the aim of a private use	In % of the total of people aged 16-74				
using the electronic mail	24	48	50	57	39
telephoning on the Internet; participating in video conferences	5	20	21	24	17
searching for information on goods and services	18	39	44	49	36
buying goods and services	5	20	20	24	13
playing video games, downloading files with games, music or graphics	12	22	23	25	18
reading online, downloading files with newspapers or magazines	13	17	18	21	13
using bank services	6	25	27	35	16
using the services of public administration	13	28	28	33	19

Source: Central Statistical Office, Statistical Yearbook 2011.

Table 5 presents behaviors in the information world. The greatest scale of behaviors is concerned with information about trade and with the use of the email, that is with the social communication generally understood; and to a lesser degree with games and reading. The use of tools for bank and administration services is not more frequent. Using new technologies not only affects the labor market, but it effects an increase in incomes as well. The differences in living situations become ever greater because of using computers and the Internet. The dualist distinction between the educated and uneducated rich and poor is a proof of the existence of the phenomenon of the digital divide. Actions that serve only facilitating the access to computers and to the Internet do not solve the problem of the digital divide. It is very important that people should be taught how to use modern technologies so that they would be able to improve their qualifications, to acquire more knowledge or to find a job with their help. In the case of elderly people the important thing is not so much the present functioning, entering the labor market or remaining in it, as first of all preventing the exclusion that, when it is intensified

and long-lasting, may deprive individuals of the sense of the need to function in a social or professional group, and this marginalizes the individual and may cause its absolute disintegration.

It is very difficult for seniors to find their place in a relatively quickly changing reality. Troubles with adaptation to the new conditions of work and communication could be seen as soon as the beginnings of the 1990's, when the computer, as a working tool started being used in the administration, businesses and economic entities. Soon work without the ability to use these tools was practically out of the question. Today the problem has not disappeared. The period of population decline and a change in the retirement age are the causes why we are active on the labor market for an ever longer time. This, in turn, makes us use ever more modern tools. Paradoxically the development may lead to problems connected with getting old age and disability pensions, with shopping, using libraries, outpatient clinics etc.

Taking into consideration a number of barriers making it impossible to fully take part in the social life for people belonging to the group of 50+, it is very often that loneliness or poverty can be found in this group, as well as factors that generate these features, like living in the country, lack of education, addiction to alcohol, being in conflict with the law etc. Generally social exclusion of the old has a multi-dimensional character.²⁴ It is found in such areas as the labor market where lack of possibilities of developing one's professional skills resulting from the employers' reluctance to employ elderly people is the cause why seniors have no motivation for developing their skills or for self-education. Even quite recently one of the main reasons why seniors did not use the Internet were financial and technological limitations, such as not possessing a computer or lack of access to the Internet because of too high costs or technological problems.²⁵ Many elderly people often have a negative opinion about the Internet and the results of using it.²⁶ Some of them treat the young as addicted to the Internet, which attaches a pejorative label to them.

Employers more willingly invest in the training of younger employees. Moreover, family relations are important factors excluding seniors; among them being lack of support from the young generation in shaping better

²⁴ Paweł Kubicki, "Ubóstwo i wykluczenie społeczne osób starszych," ekspertyza przygotowana w ramach projektu *EAPN Polska – razem na rzecz Europy socjalnej* (Warszawa, 2010).

²⁵ Główny Urząd Statystyczny, *Rocznik Statystyczny* 2011.

²⁶ Barbara Szmigielska, Anna Bąk, Małgorzata Hołda, "Seniorzy jako użytkownicy Internetu," *Nauka* 2012, vol. 2.

competences in seniors, and the economic factor – poverty or economic dependence on the members of one’s family.²⁷

Today seniors are perceived as people who because of their age are less active, although the development of medicine and health-care have effectively increased the activity of elderly people, have improved their health and lengthened their lives. In our society still there is the stereotype of grandpa and grandma. The social and economical lack of acceptance of the old determines their exclusion also in the field of the digital divide.²⁸ Moreover, the fear and lack of access to modern technologies that were mentioned above are very important.

Nowadays the awareness is growing of the need to bridge the digital gap limiting this ever bigger group that is more and more important, first of all, for the economy. The existing programs of IT education are open for everybody. Practically the only barriers for the inclusion of this group are the place of residence and the economic barrier preventing the purchase of the equipment and paying for a training course. An elderly man cannot count on the support from younger members of the family, like he could a few years ago. Seniors are the main addressees of social actions and campaigns aiming at preventing digital exclusion (the next paragraph will deal with it). This is the more so important because digital inclusion of seniors gives them an immensely powerful tool of social inclusion and intensification of their activities, not only professional. Learning the secrets of new communication technologies brings seniors closer to their families, lets them have better contacts with their loved ones and with the world.

A characteristic feature of Polish senioral policy is offering aid to elderly people in difficult economic and living situation only. There are no systemic integrating programs that are adequate to the needs (most often subject in the third sector deal with this). In Poland it is the Ministry of Labor and Social Policy that is responsible for the area of aid or work for seniors.²⁹ Not all seniors are, however, in the group needing this type of support. More often they need digital reintegration, and no ministry can secure this as yet.

An increase in the significance of the Internet practically in all the areas of social life makes the use of the Internet and of tools that are connected with it indispensable for functioning in the modern world properly. By not

²⁷ Polska-wydarzenia-tygodnia, <http://www.egospodarka.pl/59469,-48-2010,1,24,1.html> [accessed: 2.03.2013].

²⁸ Łukasiewicz, *Digital school*.

²⁹ Stanisław Brzozowski, “Seniorzy mają swoje prawa,” *Pozarządowiec* 2010, nr 1.

using it we doom ourselves to isolation. We do so, as it was mentioned, at our own request, or factors that are independent of us do so. The result is that we have limited possibilities of full participation in the social, professional or cultural life, which, in turn, generates a deepening of the existing social divisions.³⁰

The psycho-physical shape undeniably affects the level of willingness and, which follows, also the participation of seniors in the digital world, and it is exactly this factor that probably contributes to the fear of the use of the Internet that often occurs in elderly people, and to their feeling that they are not efficient enough in this area. Apart from the psycho-physical elements, the state of perception or the possibilities of understanding and learning, it is the social factors – and among them opposing any changes and lesser possibilities to adapt to the environment – that seem most important, and which follows from that, lesser possibilities to adjust to the social, civilization and cultural changes also matter. The present seniors are a “historical exception;” it may be assumed that the next generations prepared to life in the digital world by everyday experience will have no problems with new technologies. Most probably they will have other difficulties connected with life in the society. This does not mean, however, that today’s senior may be left without any support.

Elderly people also do not use the Internet because they are afraid of the threats there and of being addicted to the Internet, which they often perceive as a medium wasting a lot of time and causing a loss of contact with the reality. They are also afraid of difficulties in learning, of the wrong way of using the equipment that can break it, etc. They also have a lower sense of their own efficiency in this area and they are ashamed of not being able to do something or of not knowing something that the young generation knows.

4. PROGRAMS SUPPORTING THE E-EXCLUDED

Seniors are the main addressees of social actions and programs that aim not only at preventing the general sphere of social exclusion, but more and more often at preventing the digital divide caused by old age. Projects, usually coming from the European Social Fund or from other structural and European funds have the task of increasing the possibilities of participation in the global network, e.g. by supplying the equipment to an ever bigger social

³⁰ Batorski, *Korzystanie z technologii*.

group, facilitating the access to the Internet, and also in the sphere of the Internet education. For the time being many actions aiming at popularizing the ICT technology and preventing the digital divide are not very well adjusted to real problems. The functioning of the 8.3 Innovative Economy Operational Programme may be an example here. Small and local projects from the mentioned ESF are doing better. Local circles know better what needs they have and they better achieve the goals of the projects. The project “CAFE A-Ling@55+ realized by the NOA Foundation in Szczecinek may be an example; it is an Internet café for seniors.

Generally projects for seniors bring a lot of profits, e.g. seniors spend their time in groups (for seniors the time of learning is fairly long), they overcome their fear and shame caused by their lack of computer skills (it is easier to overcome them in a group).

Moreover, other projects “fighting” against the e-exclusion of elderly people function, an example being the project “Dojrzałość w sieci” (“M@turity on the Net”) – www.dojrzaloscwsieci.pl. Apart from local actions also ministerial projects function, like the National Plan of Actions for the European Year on Active Ageing and Intergenerational Solidarity realized by the Ministry of Labor and Social Policy in 2012, or the Government’s Program for Social Activity of Elderly People; also the project “Information for citizens – cyber-navigators in libraries” initiated by the American government’s exchange program IVLP “Library & Information Science” realized by the Foundation of Information Society Development”³¹.

CONCLUSION

Today the importance of the Internet in the functioning of the society is growing. The Net is the basic source of information and a possibility to communicate for many people. The use of computers and of the Internet on the one hand gives immense possibilities to those who can properly use the technologies, but on the other hand may lead to a social, and also economic exclusion of the people who cannot use them. The use of computers connected to the Net is not only convenient, but in a significant way it influences the degree of participating in the social life.

The undeniable phenomenon of the digital divide is a fact that concerns individuals and social groups. Today we live longer, we have more possibilities,

³¹ The information comes from an interview for the *Gość Niedzielny* magazine, March 2012.

and lack of access to this medium is the cause why seniors do not know about many things, and hence they cannot use them. Elderly people also underestimate their digital exclusion. They look for “support” in the younger generation. Those who do not have this possibility, are undoubtedly doomed to isolation in their own circles.

The fact should be emphasized that elderly people’s involvement in various forms of activity contributes to maintaining their sense of being valuable, of belonging and of being necessary. Work with the computer does not have to be tantamount to isolation from the social reality, which many seniors think is true, but it may be actual inclusion into a full life. Although research conducted on adult illiteracy³² indicates that using the computer and the Internet rarely raises the level of literacy, it cannot be denied that giving up this medium completely does not favor development. And then again, work with the computer, learning new activities, has a favorable effect on the efficiency of one’s cognitive functions. The seniors’ use of the Internet is one of the most important activities, one that significantly improves the quality of their social life.

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