

THE INTERNET AND THE COMPUTER IN LIFELONG EDUCATION OF DISABLED INDIVIDUALS IN POLAND

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ABSTRACT

The authors of the article as a continuation of the discussion on social perception of civilization by the disabled attempted to analyse their use of information and telecommunication technology. The problem has been discussed with reference to the disabled who profit from social welfare and those who do not. The authors have used the results of the 2015 research conducted in Poland on 29.8 million adults. The authors believe that the results of the research can serve as a basis for a set of actions amending social exclusion of the disabled in the care of social welfare and the disabled who do not benefit from it.

KEYWORDS: Digital Divide, Disability, Social Exclusion & Social Welfare

INTRODUCTION

Disabled people must often struggle in everyday life with a lot of adversities that are unknown to people without disabilities. Some of the barriers that prevent their full participation in society lie in themselves (i.e. self-imposed barriers, often referred to as endogenous factors - resulting from individual state of health), but a substantial portion of these barriers are also external factors (exogenous, environmental). These factors may also include the use of the latest techniques of social communication - the computer and the Internet. In the case of persons with disabilities, they can act a more important role than for individuals without disabilities and the adapted ones. The latest communication techniques can be used for performing tasks in the areas of compensating and rehabilitation. Using the computer and the Internet by persons with developmental and functioning disorders¹ and different types of disabilities from an educational point of view may be an important indication of educational activities with a strong focus on socialization.

Hence, it became essential for the authors to seek answers to some burning questions. The first referred to the level and scope of access for people with disabilities to the computer and the Internet, and ways they use these media. As educators we were interested in the possibilities of extending this participation and counteracting this exclusion. Research conducted so far by us (M. Orłowska, J. Błeszyński, 2016) have revealed that, it is helpful in these processes, and areas of life associated with free time of respondents, where these media occupy a significant part of their lives. They are also not sufficiently used by the school - educational institution.

These assumptions were used as base for further research, where we were interested in the level and scope of the inclusion of electronic media such as computers and the Internet in the process of socialization of the disabled with

¹¹It is important to consider the type, the severity and co-existence of different types of disabilities causing partial and global disorders (J. Błeszyński, 2006, p. 313-336; J. J. Błeszyński, 2013, p. 11-52).

particular attention to their empowerment, which we perceive as the fundamental premise.

METHODOLOGY

The research method used is a secondary analysis of research conducted by governmental agencies in Poland that monitor the situation of people with disabilities - Office of Government Plenipotentiary for Persons with Disabilities and research conducted in this area by the Central Statistical Office. Both institutions have been researching for a number of years the quality of life of people with disabilities according to a multiple-validated methodology based also on the experience of Eurostat.

DISCUSSIONS

The Size of the Disabled Population

For discussion it is important to define not only the area of interest, but also the scale of the phenomenon. According to the Office of the Government Plenipotentiary for Persons with Disabilities in Poland lives almost 5 million (4.7 million) people experiencing some form of disability. Thus it affects more than one in ten people in Poland (12.2% of the population) (www.niepelnosprawni.gov.pl/p,78,dane-demographic 18.10.2016). This is a fairly diverse population. The percentage of people with disabilities increases with age. Up to 14 years of age, about 5% of children experience disabilities (disability.gov.pl..., p. 115). This level maintains to about 30 years old. However, in the following age brackets, this rate increases, two- and fourfold, between 30-50 years and 50-70 years, to reach the rate of 2/5 of the population over the age of 70. (State of health in 2014, GUS 2016, p. 112)².

Under Polish conditions, the dominant group is characterized by dysfunction of the motor organs, cardiovascular system and neurological disorders (www.niepelnosprawni.gov.pl..., p.

Income as a Factor Differentiating the Disabled and Working People

In the public space as well as the literature of the subject there is a conviction about the lower economic possibilities of people with disabilities compared to other participants in social life. This factor is important for these considerations, because income essentially determines the level and quality of consumption of various goods and services. This common opinion and observations of researchers confirm the statistical office survey - see chart 1. It turned out that people with disabilities are much more likely to have lower incomes than other members of society. More often than others, they were in low income groups. It is true that three quarters of Polish people with disabilities is in the low income group, while among fully abled, it is about 10 percentages points less. Only, one out of nine disabled people had high income (V quintile). In the case of people without disabilities, it was one in every five (see chart 1).

²Compare with Stan zdrowia ludności w 2014 r. GUS 2016,p.105.

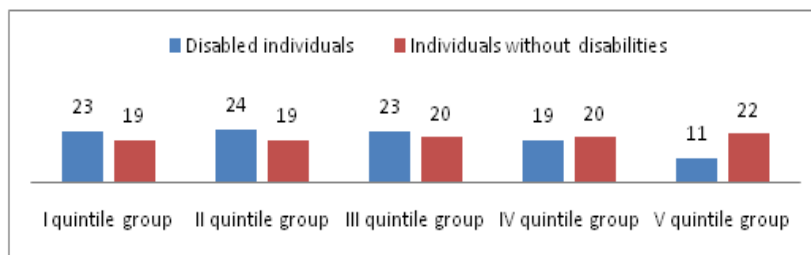


Chart 1: Income Level of People with and without Disabilities in Poland (In Quintiles) by Income Groups (N = 24,000)³

Source: Own study of *Stan zdrowia ludności w 2014 r.* GUS 2016, p. 111

One may assume that this may be one of the most important factors limiting their access to the computer and the Internet (see M. Orłowska, 2016, pp. 118 - 123). In Poland, these are paid services. The situation is especially difficult when we consider the special needs of people with disabilities, such as special dietary needs, above standard commute needs or prosthesis for work or regular living.

No ease of movement particularly predisposes the disabled to use the Internet. Especially in the sphere of activities such as work, shopping or social life. The analysis of the situation by the authors reveals that in the general population the access to such services was less than every other disabled. The situation deteriorated for people with very low incomes that were under care to almost every other person (40%) (article: *Measures of Social Engagement of Civilization in the Perspective of the Use of ICT by People with Disabilities*). The article, shows the inability to use a computer was a problem for every fifth Pole and about 40% of disabled Polish citizens. This inability enforced the exclusion through the need of using the Internet.

The Effectiveness of the Possibility of Using IT and Digital Techniques in Education

Undoubtedly, "lack of skills" and "lack of needs" are related to one another. Reflection, which arises in the analysis of the collected material, shows the need and necessity of education, particularly of the excluded and threatened by exclusion, especially in the area of skills in mobile media, which in the case of people without disabilities is much smaller, though in an equally significant proportion - almost every fifth Pole. Another problem is the effectiveness of using in education possibilities of information and telecommunications technologies. On the one hand, they facilitate contact with the society, access to information, and on the other hand, they activate people to fully participate in social life and promote integration aimed at inclusion.

This problem becomes particularly important in the context of ways and purpose of the Internet use, when it can become a significant barrier not only in use, but more broadly - in social participation.

Table 1: Use of ICT in Households in 2015 (N = 28 941 422)

³The term quintile group should be understood that households qualify for the appropriate quintile group based on the amount of disposable income per person. For this purpose, a list of people who are in the surveyed households is prepared. They are sorted according to the increasing disposable income per person. Then the list is divided into 5 equal parts. The first (I) quintile group represents 20% of people with the lowest income, about a fifth (V) - 20% of people with the highest incomes. (*Budżety gospodarstw domowych w 2012, (2013)*, Warsaw: GUS, p. 21.

	Altogether	Individuals Benefiting from Social Welfare	Disabled Individuals	Disabled Individuals Benefiting from Social Welfare
The Purpose of using the Internet in the Last 3 Months				
Communicating:	61,2	47,5	32,0	32,0
- sending and receiving emails	54,0	39,3	27,1	26,9
- phoning via the Internet	27,6	23,1	15,7	13,1
- chatting	12,7	9,9	No data	No data
- using social networking sites	41,4	36,3	18,7	24,1
Accessing information	57,4	39,2	33,8	25,5
- searching for information on goods and services	42,2	30,1	23,7	20,5
- Reading magazines and newspapers online	46,6	27,2	26,7	21,4
- searching for information connected with health	28,3	27,2	22,1	20,3
- searching for information connected with education	18,3	15,3	7,9	10,7
- using online dictionaries and encyclopaedias	29,8	22,1	18,0	14,6
Participation in social and political life	5,7	3,5	2,5	3,9
Professional development	12,1	15,7	7,1	11,3
- searching for work	9,9	14,5	6,6	10,3
Other online services	17,1	7,6	7,4	2,2
- Internet banking	31,2	16,7	17,5	11,1
Education, private and professional matters	9,9	5,0	4,4	8,6

Source: own study of *Wykorzystanie technologii informacyjno-(tele)komunikacyjnych w gospodarstwach domowych w 2015 r - ZIP archive, unpacked size 14 724 096 bytes.*, (2015) Warsaw: GUS (Central Statistical Office).

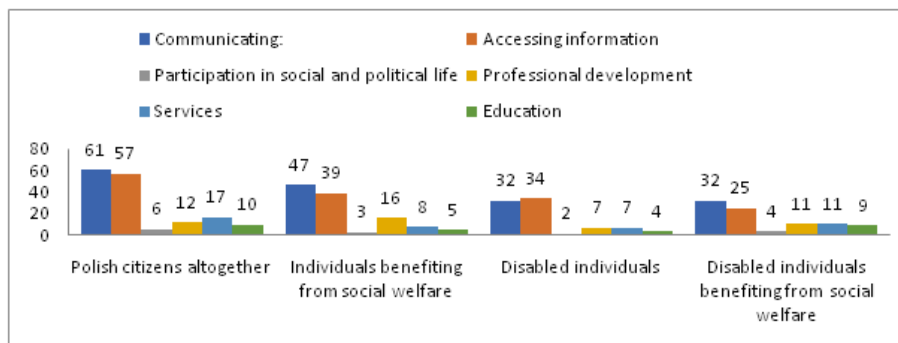


Chart 2: Use of ICT in Households in 2015 (N = 28 941 422)

Source: own study of *Wykorzystanie technologii informacyjno-(tele)komunikacyjnych w gospodarstwach domowych w 2015 r - ZIP archive, unpacked size 14 724 096 bytes*, (2015) Warsaw: GUS (Central Statistical Office).

The dominant behaviour for all the groups while using ICT is communicating (see Table 1 and Chart 3). An exception is a small advantage (2%) in case of disabled individuals but not individuals benefiting from social welfare when it comes to using information. It is tempting to say that the Internet is mainly used for communication purposes, but resulting from individual needs. Using the Internet to participate in public affairs is marginalized in all groups. The use of the Internet for educational purposes (which are not associated with cognitive objectives) is also low. Despite different approach to professional development and services, the results for disabled individuals are similar although on different levels.

It can be concluded, based on the chart No. 5, that the use of ICT and telecommunications is the least important for disabled people and the disabled benefiting from social welfare.

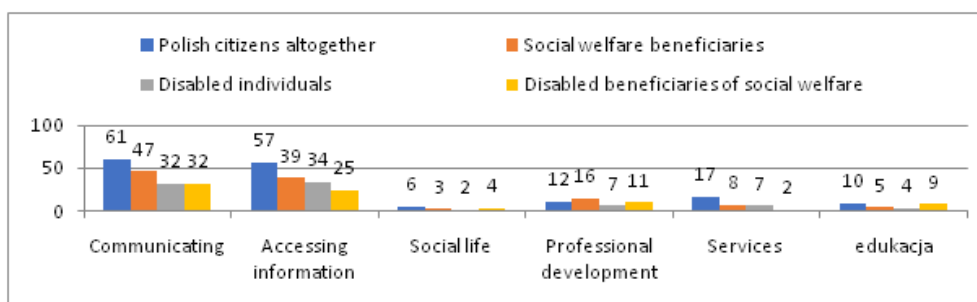


Chart 3: the use of Ict by Disabled Individuals and Disabled Individuals Benefiting from Social Welfare (N=28 941 422)

Source: own study of *Wykorzystanie technologii informacyjno-(tele)komunikacyjnych w gospodarstwach domowych w 2015 r - ZIP archive, unpacked size 14 724 096 bytes*, (2015) Warsaw: GUS (Central Statistical Office).

The statistical material presented in charts No. 5 and No. 4 reveals that other activities (social life, professional development and education and services) are on a relatively low or very low level (social life). This is puzzling, especially in case of people with disabilities. It would seem that this form of contact with the outside world should be particularly beneficial and preferred by this group of people.

One explanation may be behaviours observed in the whole population (Polish people in general). It can be assumed that the activity of society in educational and professional development or use of services is generally not popular in the community or there are insufficient facilities on servers providing such Internet services, e.g. lack of online stores, social life not mirrored in the media, etc.

Certain information relevant for the educational point of view provides a detailed analysis of behaviour on the Internet (see Tab. 3). In the sphere of communication, it is essential to transmit and receive e-mails and use social networking sites. In the sphere of information, it is important to search for goods and services, and read the press. Online services mainly banking services are popular. Other activities (work and education) are at about 10% for the population, and even less for social and political activity.

In all of these areas of social activity disabled people and disabled beneficiaries of social welfare participate to a much lesser extent.

All this leads to the conclusions connected with popularization and education in the fields of various forms of public life on the Internet, and the possibility to take advantage of them and take a variety of measures to counteract this "lack of skills" and "lack of interest". An example of breaking the existing stereotypes which present people with disabilities as those that cannot, do not have the possibility is a noticeable ease with which children with intellectual disabilities are able to use the facilities of modern information and communication technologies - smartphones, tablets, mobile phones. With great satisfaction, it is observed how students with difficulties in the acquisition of reading and writing skills easily operate such complicated devices, e.g. by writing messages, sending messages, downloading image files.

An important element is the use of techniques of AAC (Augmentative and Alternative Communication). These are augmentative and alternative communication methods for people with difficulties in communication or those who may not communicate verbally (J. Bleszyński, 2008; J. J. Bleszyński, 2015, pp. 61-85). Information and telecommunications technology is one of the possibilities, the platform of communication with society.

Another issue connected with the abovementioned problems is the place where people use the Internet.

Table No 4: Places where People use the Internet (N=28 941 422)

	Altogether	Individuals Benefiting from Social Welfare	Disabled Individuals	Disabled Individuals Benefiting from Social Welfare
Places where the Internet was used in the Last 3 Months:				
- home	66,3	48,5	37,1	31,4
- work (other than home)	22,7	9,3	6,2	6,7
- other people’s house/flat	8,3	6,0	2,6	2,8
- educational institution	11,1	7,9	4,7	5,6
- other places	7,7	6,9	3,0	6,8
ONLY HOME	33,8	28,8	26,9	18,5

Source: own study of *Wykorzystanie technologii informacyjno-(tele)komunikacyjnych w gospodarstwach domowych w 2015 r - ZIP archive, unpacked size 14 724 096 bytes*, (2015) Warsaw: GUS (Central Statistical Office).

The statistical material presented in Table 4 and charts 6 and 7 indicates that the primary place of the Internet use is home. Different groups use it in their own homes in varying degrees. Home is the main place for using the Internet for 3/4 of Polish citizens and one in three individuals uses the Internet only at home. This tendency is so dominant that it is possible to use the term „domocentrism”. Other places are less frequently used.

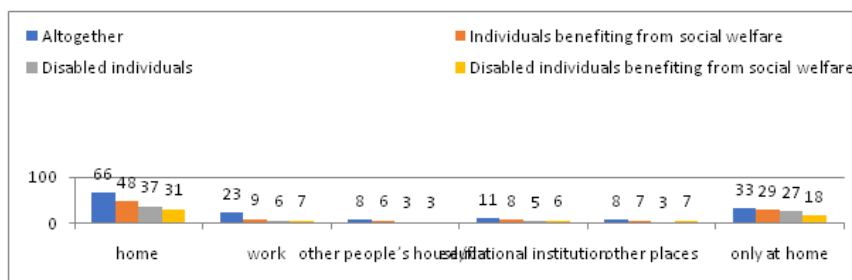


Chart 4: Places where People use the Internet (N=28 941 422)

Source: own study of *Wykorzystanie technologii informacyjno-(tele)komunikacyjnych w gospodarstwach domowych w 2015 r - ZIP archive, unpacked size 14 724 096 bytes*, (2015) Warsaw: GUS (Central Statistical Office).

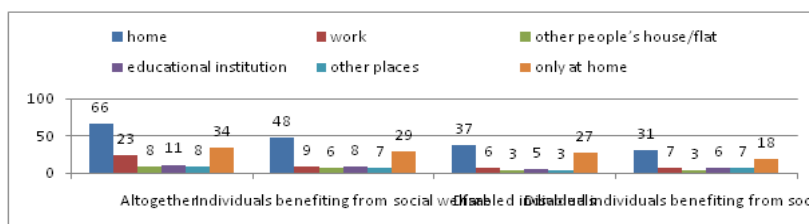


Chart No 5: Social Distribution of the Internet (N=28 941 422)

Source: Own study of *Wykorzystanie technologii informacyjno-(tele)komunikacyjnych w gospodarstwach domowych w 2015 r - ZIP archive, unpacked size 14 724 096 bytes*, (2015) Warsaw: GUS (Central Statistical Office).

It is interesting that the beneficiaries of social welfare have an opportunity to use free Internet in work centres for the purpose of searching for jobs and students have the same opportunity in educational institutions and yet both groups do not take this opportunity.

CONCLUSIONS

Digital exclusion seems to be one of the most severe in the modern world. For some social groups, such as people with disabilities, it is a particularly dangerous form of lack of social participation. This research material reveals that people with disabilities experience it more frequently than the other citizens. It would seem that especially unfavourable economic conditions foster it, which they more often than others experience. However, it turns out that the hindrance is not only their generally low economic condition, but above all a lack of needs and skills.

Hence perhaps little interest in participating in social life or education through the Internet. Discovering the causes of low activity shows a huge field for educational activities. Such media, especially in the case of people with disabilities, are a dream instrument for social participation or for building social capital. Too bad it was not fully utilized.

There is a great need and opportunity to take action to equalize opportunities for persons with intellectual disabilities in relation to the able-bodied. The essence is to counteract occurring dissonance between these groups in the acquisition and use of information and communication technologies. One of those ways to achieve it could be the introduction of these technologies in educational programs, their practical use - by allowing the creation and use of appropriate educational applications, and instant messaging services on different levels of their use, to serve customers in offices, online stores, etc.

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