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PROBLEM OF INFORMATION EXCLUSION IN RURAL AREAS

PROBLEM WYKLUCZENIA INFORMACYJNEGO NA OBSZARACH WIEJSKICH

Key words: information society, digital and information exclusion, rural areas, internet

Słowa kluczowe: społeczeństwo informacyjne, wykluczenie cyfrowe i informacyjne, obszary wiejskie, internet

Abstract. Limited access to information and communications technologies (ICT) may constitute an important element deepening the gap between the whole society and social groups which already have problems undertaking challenges connected with social transformations occurring in our country for over a decade now. Based on statistics concerning the information society in Poland, developed by the Central Statistical Office (GUS) and based on selected statistical data obtained from “Diagnoza Społeczna 2011” (“Social Diagnosis 2011”), the paper discusses the influence of economic, mental and infrastructural factors onto occurrence of the problem related to stratification of the Polish society because of access to and ability to take advantage of modern information and communications technologies.

Introduction

Very intensive development of information and communications technologies (ICT) is noticeable nowadays and their significant impact on both the level of economic growth and quality of life of societies. As a result of common use of such technologies in various areas of life, they are perceived as one of the most important elements of civilization and social transformations. On the one hand, progress contributes to generating increasing information resources, but on the other hand, development of those resources becomes a prerequisite for emergence of new technologies, products and solutions. Today’s complex social and economic structures require the community to have access to greater and greater information resources. Maintenance and development of those resources is possible thanks to modern information technologies, which integrate the processes related to generation, collection, storage, transfer and dissemination of information.

Numerous examples evidence that using the Internet may have a number of positive effects onto its users. The Internet and other new technologies may carry a possibility of change in nearly all areas of social life. That is why the information society is frequently referred to as a new type of society. Use of new devices and ICT at schools involves a change in the teaching process, whereas in state administration and at enterprises it influences the process of producing goods and services, manner of performing work and its efficiency, as well as contributes to development of new products, skills and professions. Such changes are easy to notice in the economy and in the society which in the digital age have gained distinctive names of knowledge based economy and information society. However, not everybody has access to new technologies and not everybody can take advantage of them. Therefore, the question to what degree they are used by the Polish society becomes important. Limited access to information and communications technologies may constitute an important element deepening the gap between the whole society and social groups which already have difficulties in undertaking challenges connected with social transformations occurring in our country for over a decade now.

Social effects of the information revolution may be analysed in a multiple and multidimensional context. One can discuss its influence onto the world, particular regions, countries or individuals; therefore, it is not possible to tackle all aspects. The objective of this paper is an attempt to find the answer to the question which factors constitute the source of disproportions in access to information and communications technologies in rural areas. To achieve this objective, elements of statistics on information society in Poland are used, developed according to the harmonised European Union methodology obtained based on surveys conducted by the Central Statistical Office (GUS) in key areas employing information and telecommunications technologies (for short: ICT) at enterprises and households, as well as selected statistical data obtained from “Diagnoza Społeczna 2011” [Batorski 2011].

Information exclusion – discourse

The notion of information society (*johoka shakai*) was introduced in 1963 by the Japanese ethnologist Tadao Umesao, and its popularisation was further on contributed to by Kenichi Koyama [Szlachta 2004]. Functioning of this term in Europe was initiated by the French sociologists Alain Minc and Simon Nora in their report entitled “L’informatisation de la Société”. In the research conducted by the Central Statistical Office (GUS) “Wskaźniki społeczeństwa informacyjnego” (“Indices of the information society”) it was assumed that the information society is a society which is at such stage of technical and organisation development that the achieved level of ICT advancement results in creation of technical, economic, educational and other conditions supporting universal use of information in the production of goods and performance of services. Such a society provides to citizens universal access and ability to use ICT technologies in their professional and social activity in order to enhance and update their knowledge, use the cultural welfare, health protection services and other services allowing a better quality of life [Społeczeństwo informacyjne... 2010]. A developed information society is a society which uses the common information space, whose frameworks allow use of the services of public administration that are fully available online, which considers the issues of social integration in the context of using information and communications technologies (among others, by minimising digital exclusion), invests in research and development activities and demonstrates a high level of innovation. Another important indicator is improvement in the quality of life, because implementation of information and communications technologies allows introduction of new health care or social services. However, although many publications emphasise positive impact of new teleinformatic technologies, an analysis of available statistical studies (GUS, *Diagnoza społeczna*) indicates that there exist disproportions in their use. Therefore, one should ask if certain worrying signals are appearing in the area of information society as defined herein. Differences with respect to access to information and communications technologies may lead to occurrence of new social divisions, they may deepen the existing ones and cause exclusion of whole groups from the society. Indeed, much is written in the literature of the subject on digital exclusion and, consequently, on information or even social exclusion. To answer that question, let us take a look at the definitions of these notions. The phenomenon of so-called digital exclusion denotes systemic differences in access to and use of computers and the Internet among people with different social and economic statuses (education, income, profession), at different stages of life, among men and women, residents of urban and rural areas, as well as residents of different regions. The term of digital exclusion does not come down only to physical Internet access possibilities; other factors are also important, as follows [pl.wikipedia.org]:

- lack of ability to use the Internet (particularly among elderly persons),
- low quality of connection (particularly in small towns and villages),
- command of foreign languages (inability to use the language in which the required information is available).

Its strengthening becomes one of the most important reasons underlying deepening of unfavourable social phenomena and consolidation of negative attitudes, which involve reduced efficiency of social assistance.

Occurrence of the differences results in the digital divide among those (people, households, companies, schools as well as regions) that can take advantage of the opportunities created by state of the art technologies and those that are deprived of this possibility.

Digital exclusion may firstly lead to information exclusion which ought to be defined from a broader perspective and whose definition should consider an individual’s needs with respect to access to new information technologies. It is the aroused need for knowledge and information that can make correlation between digital exclusion and information exclusion not directly proportional. The problem of information exclusion is not only a phenomenon related to access to new technologies, but also the differences connected with the ability to use them and the objectives. Digital exclusion is undoubtedly a strong challenge to development of the information society, but it also requires undertaking of educational activities aimed at reducing the degree of this kind of exclusion as well as information exclusion. Resolution of the problem of information exclusion requires cooperation of persons responsible for the social policy, development of new technologies and other key participants of social life, as the revealed information gap will not disappear by itself, while it is currently an evident social problem. On the other hand, the use of new technologies has already become an inseparable attribute of social development in the 21st century [Jaska 2010].

Using of modern information and communication technologies is possible if the following conditions are fulfilled:

- 1) the fundamental condition is ensuring universal access to wired and wireless telecommunications networks and providing households and main institutions (offices, schools, libraries) with equipment allowing use of information resources, including computers with Internet access;

- 2) assuming that while speaking of an information society, one speaks of a society which not only has access to various teleinformatic technologies, but is also able to take advantage of these new achievements; this will only be possible if complete awareness of the need to use new sources of information appears in social structures and, moreover, if information is adjusted to actual needs of its recipients; first of all, the form of providing information, as well as the content and structure of information, ought to be adjusted; the phenomenon of information exclusion can only be avoided or minimised if these fundamental conditions are fulfilled.

Reasons of information exclusion in rural areas

Information exclusion, including in particular digital exclusion, constitutes in Poland a threat above all to rural areas which occupy over 93% of the country's area. The reasons thereof should be sought first of all in the poorly developed telecommunications infrastructure, low population density and, therefore, spatial dispersion of potential users and much worse economic condition of the residents of rural areas as compared with city residents. What is more, significant differentiation in terms of access to new telecommunications technologies is noticeable within rural areas. In this respect, the condition of rural areas located in the neighbourhood of metropolitan centres is much better, as they are functionally connected with them.

Poorly urbanised rural areas are not attractive to the telecommunications market. Private operators are afraid of high costs of implementation and they are also discouraged by the limited scale of potential demand for telecommunications services.

Dynamics of changes related to digitalisation of the society is high. This is evidenced by results of the panel study on the conditions and quality of life of Poles, entitled "Diagnoza Społeczna" ("Social Diagnosis"). In 2003, 16.9% households had Internet access. In subsequent years, the indicator was growing to reach 51.1% in 2011. That means that more than a half of households in Poland have Internet access now [Batorski 2011]. Despite that, the low degree of computerisation – as compared with the whole country – can be stated as another reason of information exclusion. As the percentage of Polish households equipped with computers is growing among all groups of households, the disproportions are deepening to the detriment of people working in agriculture, because growth by a greater number of percentage points is recorded at the households of people working on non-agricultural positions and on their own account. However, one needs to remember that the percentage of households which possess computers in Poland is low as compared with other European countries, e.g. the Netherlands (69%), Denmark (68%) or France (27%). Still, one may pose the thesis that 42.8% of households with Internet access in rural areas create an opportunity for development of telework as well as potentially more modern approach to agriculture (better information, simplified grant application process, etc.). The computer was used by 38.9% persons aged 25-64 residing in rural areas, with 18.0% of persons using it every day or nearly every day. These values are much lower than those relating to cities (respectively, 64.2% and 42.5%). 27.5% village residents between 25 and 64 years of age used the Internet, with 12.4% doing it every day or nearly every day. City residents at the same age used the Internet much more often – 35.5% of them did it every day or nearly every day [Obszary wiejskie... 2011].

Worse condition of rural areas in terms of Internet usage may be explained by at least two reasons. The first and fundamental one is the economic status of the residents of rural areas who are more threatened with poverty; over two times more residents of rural areas were below the poverty threshold as compared with city population. In rural areas, 13.5% population lived below the statutory threshold of poverty (amount entitling an individual to claim a monetary benefit from the social assistance system), with 26.1% living below the relative threshold of poverty (50% average monthly expenditures), and 9.2% living below the threshold of extreme poverty (minimum subsistence level estimated by the Institute of Labour and Social Studies [Obszary wiejskie... 2011]).

Another reason underlying limitations in using the computer and using the Internet is the lower level of general education, lack of knowledge and lack of conviction regarding benefits resulting from using IT technologies. Noticeable and continuous growth in the number of households equipped with computers is mainly related to the pace and not scope of changes. That means that the group of people using the information and communications technologies is systematically investing in computer equipment and services, being aware of their advantages. On the other hand, people who have not been using high technologies due to various reasons, treat other needs as a priority, postponing purchase of a computer or Internet access service to a vague future.

Lack of motivation and lack of ability to use the computer and the Internet is confirmed in a survey conducted within "Diagnoza Społeczna 2011". People who – despite owning a computer in the household – do not use it are much more often elderly people with poorer education (only 11% of people with primary school education use the computer), retired persons and pensioners, as well as persons employed in agriculture. Much fewer household members use computers in small towns and villages.

An analysis of changes in the results obtained in surveys conducted in years 2007, 2009 and 2011 reveals decreasing importance of so-called hard barriers (infrastructural or financial) in favour of soft barriers – mental and competence related ones. In 2011 (as compared with years 2007 and 2009), there was an increase in the percentage of people without Internet access who declared the following reasons thereof: they did not need the Internet (46.5% in 2007, 50% in 2009 and 44% in 2011), lack of computer skills (respectively, 10.3%, 28.6% and 25.8%). Without any doubt, people with higher or secondary school education have much greater motivation to use the new technologies. This trend will probably be deepening in the coming years; therefore, programmes aimed at popularisation of Internet access or prevention of digital exclusion ought to focus above all on overcoming the soft barriers. Unfortunately, all the large programmes which have been or are being implemented in Poland focus on provision of equipment and connections, whereas the problem of insufficient motivation and competences is treated marginally [Batorski 2011].

Social and professional status is also of great importance to the fact of using the computer and the Internet. People who use the Internet most often are schoolchildren and students, as well as employed persons such as private entrepreneurs or people employed in the public sector. Fewest users are among retired persons, pensioners and farmers. A detailed analysis of using new technologies in the context of social and professional status is presented in table 1.

It ought to be emphasised, however, that reduction with respect to differences between various groups in terms of using new technologies has not been observed in Poland so far. Just the opposite – some differences are increasing. What is more, existing research demonstrates that various dimensions of differentiation overlap – people from groups which have a greater opportunity to have access much often have better quality access and, moreover, they also have better computer skills. Also, these people use computers and the Internet in a different manner than people from less privileged groups – they much more often use the computer in instrumental purposes connected with their work or study, using these technologies for entertainment less often. Therefore, such people are also more likely to experience positive effects of using the computer.

The problem of digital exclusion is not only the phenomenon of digital divide of the society into groups of people who do have a computer and Internet access and those who do not have them for various social and economic reasons. Above all, differences result from lack of need and ability to use the computer which, in a longer time perspective, may lead to information or even social exclusion.

As a consequence, the issue of information exclusion may be summarised in one sentence – not everybody has access to new technologies and, more importantly, not everybody can take advantage of them. A consequence of this state of affairs may be progressing stratification of the society and social exclusion of people who will not be able to use those technologies.

Table 1. Use of new technologies in the context of social and professional status

Tabela 1. Korzystanie z nowych technologii ze względu na status społeczno-zawodowy

Specification/ <i>Wyszczególnienie</i>	Structure of users/ <i>Struktura użytkowników</i>				
	computer/ <i>komputer</i>	internet/ <i>internet</i>	mobile telephone/ <i>komórka</i>	non-user/ <i>niekorzystający</i>	user of all/ <i>korzystający ze wszystkich</i>
Public sector employees/ <i>Pracownicy sektora publicznego</i>	84.1	83.0	96.5	1.5	78.5
Private sector employees/ <i>Pracownicy sektora prywatnego</i>	75.3	74.8	96.6	2.1	69.0
Private entrepreneurs/ <i>Prywatni przedsiębiorcy</i>	83.1	85.2	97.3	1.5	79.1
Farmers/ <i>Rolnicy</i>	37.6	33.0	79.8	17.6	28.9
Pensioners/ <i>Renciści</i>	23.0	21.6	66.5	32.0	19.0
Retired persons/ <i>Emeryci</i>	20.5	19.7	60.1	38.4	16.6
Schoolchildren and students/ <i>Uczniowie i studenci</i>	96.4	96.9	97.7	0.2	90.9
Unemployed/ <i>Bezrobotni</i>	62.3	63.2	90.5	8.6	57.3
Other, professionally passive/ <i>Inni bierni zawodowo</i>	55.9	55.3	83.4	13.4	48.5

Source: own study based on Batorski 2011

Źródło: opracowanie własne na podstawie Batorski 2011

Summary

In many areas of social, economic and political activity, information and communications technologies cause marginalisation of people who have limited or no access to them or cannot use them. High flown promises connected with the Internet as a tool of freedom, communication and productivity are accompanied by deepening of the digital divide. Division into those who do have access to new telecommunications technologies and those who do not have this access adds a new dimension to existing social inequalities, thus increasing the gap between promises of the information era and the sad reality which is experienced by a considerable part of our society. Summing up the analysis of digital and information exclusion in rural areas, the following conclusions may be drawn:

- in order to facilitate to the residents of rural areas full membership in the social and economic life of the country, they need to be provided with access to computers and the Internet and, most importantly, they need an opportunity to acquire/develop skills related to using state of the art information and communications technologies;
- access to computers and the Internet constitutes an opportunity to activate local communities and reduce social differences (especially when the quality of life of city residents is compared with that of the residents of rural areas).

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Streszczenie

*Ograniczenie dostępu do technologii informacyjno-komunikacyjnych może stanowić ważny element pogłębiający dystans pomiędzy ogółem obywateli a grupami społecznymi, które już obecnie mają trudności w podejmowaniu wyzwań związanych z przemianami społecznymi zachodzącymi od kilkunastu lat w Polsce. Na podstawie statystyki dotyczącej społeczeństwa informacyjnego w Polsce opracowywanej przez GUS oraz wybranych danych statystycznych zaczerpniętych z *Diagnozy Społecznej 2011* przedstawiono wpływ czynników ekonomicznych, mentalnych i infrastrukturalnych na pojawianie się problemu rozwarstwiania polskiego społeczeństwa ze względu na dostęp i umiejętności wykorzystywania nowoczesnych technologii informacyjno-komunikacyjnych.*

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