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# Digital exclusion of elderly citizens: Polish experiences based on the project Adult Social Inclusion in a Digital Environment (ASIDE)

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## Abstract

The dynamic development of digital technologies and their widespread use in everyday life, especially by younger generations, forces urgent initiatives to counter the digital exclusion of older people. Adult Social Inclusion in and the Digital Environment (ASIDE) has offered activities to sup-

port inclusive education and digital skills, raising competences for digital social inclusion of adult social educators and adult social volunteers. The aim of the article is to present the experiences of the ASIDE project in the field of digital inclusion of seniors. Research methods typical of this type of study were used: critical analysis of the literature on the subject, analysis of project documents, analysis of published secondary data.

## 1. Introduction

In the third decade of the 21st century, digitization is of great importance, especially for emerging economies and developing countries. Countries and communities that are unable to digitize fast enough face digital inequalities. The efficient use of information and communication technologies (ICT) is a key factor in economic development, social welfare and effective management (Jamil, 2020; Chang et al., 2014). Digital connectivity remains the epicentre of a country's economic and social progress by connecting people, government and business in real time to achieve sustainable development across sectors of the economy (Strusani, Hounghonon, 2020). However, not all participants in society have access to ICT, which results in the problem of the digital divide (Robinson et al., 2020; Hanafizadeh et al., 2013; Alampay, 2006). It should be noted that the digital divide is not only a matter of the unavailability of ICT, but is also linked to socio-political, economic and cultural factors that affect people's access to ICT or their ability to use it efficiently (Warschauer, 2003; Reisdorf and Grosejl, 2017).

On the other hand, in the last decade, one of the noticeable responses to the problem of digital inequalities has been to support digital inclusion, which is essential to achieving sustainable development. (United Nations Social Development Network, 2019; Ragnedda and Mutsvairo, 2018). Equal access to the Internet and technology is a necessary factor in improving their quality of life, as it offers the possibility of access to useful information and services (Ragnedda and Gladkova, 2020). Hence, digital inclusion requires the adoption of innovation and sustainable infrastructure that can create employment opportunities, support the digital economy and generate income. The European Commission plans to allocate EUR 9.2 billion for the digital development of Europe by 2027 under the new Digital Europe program, which is an increase of approximately 50% compared to the programming period 2014–2020.

The aging of the population is a long-term trend that started in Europe several decades ago (Dąbrowska and Lubowiecki-Vikuk, 2020). This trend is visible in the transformation of the age structure of the population and is reflected in the growing share of the elderly, combined with the decreasing share of the working age population in the total population. The share of the population aged 65 and over is increasing in every European Union (EU) Member State. Low birth rates and longer life expectancy also increase the share of older people (60 and over) in the total population. According to Eurostat data, in 2017, people aged 60 and over

accounted for 25.6% of the total population of the EU. People aged 65 and over represent 19.4% of the total population in the EU. This means that almost every fifth person in the European Union is 65 or older. This makes up a population of almost 100 million people and means that for every person aged 65 or over, there are roughly three people of working age. Even 20 years ago, there were about five people of working age for every person over 65 years of age. Ten years later, the ratio was 1:4, and today it is close to 1:3. The highest percentage of this age group is in Italy, Greece and Germany (22.3%, 21.5%, and 21.2% respectively), and the least of these people live in Ireland (13.5%), while in the candidate countries, the lowest number of people over 65 live in Turkey (8.3%). In Poland, there are 16.5% of such people in the total population, which is below the EU average (Kancelaria Senatu, 2018).

The aim of the article is to present the experiences of the ASIDE project in the field of digital inclusion of seniors. Research methods typical of this type of studies were used: critical analysis of the literature on the subject, analysis of project documents, and analysis of published secondary data.

## 2. The essence of digital exclusion — review of definitions

The concept of “digital exclusion” refers to the concept of “social exclusion,” understood as the lack of access to certain goods necessary for normal functioning in society (Stolarczyk, 2018; Nur Akarçay et. al., 2021; Ochoa-Daderska et al., 2021). It was shaped in the 1970s as a reflection of the multidimensionality of social life. According to Panek and Czaplinski (2013), social exclusion means that a given individual or a social group being members of a community (most often it is a community of state citizens) cannot fully participate in important areas of the community’s life. It is often added that this limitation does not result from the beliefs of those who are excluded, but from deficits completely or largely independent of the excluded. Exclusion may include work, consumption, participation in culture, community life and politics.

Digital exclusion, although synonymous with social exclusion in terms of its consequences, is nevertheless a more complex phenomenon that integrates many different factors determining the inclusion in the group of people at risk. It takes into account both physical access to the Internet as well as a whole range of psychological premises. These include: access to infrastructure, hardware and software, but also the quality of this hardware. The second is psychological (subjective) reasons, such as concerns about using the Internet, motivation, skills and their level (Sawicka, 2015).

The scope of digital exclusion — as the phenomenon of the inability to use modern technology products at even a basic level — is difficult to objectively

assess, but it is certainly different both between societies of different countries and within them. In the group of the former Eastern bloc countries which underwent a profound political, economic, social and technological transformation after 1989, the indicators differ relatively slightly (Susło, Paplicki and Drobniak, 2019).

The widespread use of modern technologies (computers, smartphones, Internet, mobile banking, modern office equipment and household appliances, etc.) may constitute a barrier to the active participation of older people in social and public life. According to a study by the Central Statistical Office (GUS, 2018), 60% of people aged 65 and up have never used the Internet. Additionally, as many as 82% of those who did not use the network of seniors did not feel the need to use the network, and 71% declared a lack of skills as an obstacle. Only 9% did not use the Internet for economic reasons. On the other hand, according to Eurostat surveys, only every fourth elderly person (26%) uses the Internet at least once a week, while in the European Union, it is almost half (48%). The digital exclusion of older people is even more visible among people aged 65–74, as only 10% of people in this age group surf on social networks (Tracz-Dral, 2019).

GUS data for 2019 indicate that 1,360,300 people used a computer in Poland. people aged 65–74, which accounted for 34.1% of the total number of people in this age group (an increase by 2.4 percentage points compared to 2018). The percentage of computer users was higher among men (38.3%) than among women (30.8%). The Internet was used by 1,477,200 people aged 65–74, i.e. 37.0% of the total number of people in this age group (40.7% men and 34.2% women).

Taking into account the dynamic development of ICT and its widespread application in everyday life, especially by younger generations (e.g. generation Z), it is necessary to take measures to counteract the digital exclusion of older people. The cited data clearly show the important role of training and courses that strengthen the competences of older people in the use of new technologies. Organized workshops and classes help the elderly to consolidate their acquired knowledge, to get used to technological innovations, but above all to improve everyday activities over time, such as using social media, shopping via the Internet, paying bills or settling official matters. This, in turn, means that the elderly remain independent, and independent for longer, and have no fear of the constantly changing reality (uchwała nr 167 Rady Ministrów z dnia 16 listopada 2020 roku).

### **3. Counteracting the digital exclusion of older people — experiences from the ASIDE project — in the context of research methodology**

Among the systemic initiatives undertaken at the European and national levels, the experience from the project “Strategic Partnerships for Adult Education (ASIDE) — Cooperation for innovation and exchange of good practices” no. 2019-1-PL01-

KA204-065689 was analysed, duration of the project: 1.09.2019–31.08.2021 (Ochoa Siguencia et al., 2020b; Sanchez Garcia, 2020).

The ASIDE project aimed to support inclusive education and digital skills, increasing competences in the field of digital social inclusion of adults with the participation of educators and volunteers. The project dealt with social inclusion by defining a portfolio of basic digital competences that are necessary for the development of Information and Communication Technology based social inclusion initiatives/services.

The aims of the project were:

— supporting social integration by improving the competences of social educators and social volunteers involved in the design / implementation of initiatives / projects for social inclusion;

— strengthening the support, participation and educational activities of social educators and social volunteers involved in inclusive education and digital social practices;

— enhancing social inclusion through digital innovation practices, innovative ICT-based methods and pedagogy, as well as online participation models, where appropriate.

The project partners were international supply-side entities: Fundacja Instytut Badań i Innowacji w Edukacji (Leader — Poland), Saricam Halk Egitimi Merkezi (Turkey), Fundación Universitat Jaume I — Empresa (Spain), and ITC International TEFL Certificate s.r.o. (Czech Republic).

Adult education in the field of ICT and new technologies brings with it a number of challenges, especially important for seniors. For a broader context of the selection of the age group of seniors, it is worth taking into account, apart from age, additional socio-economic elements, such as place of residence, education or purchasing power, which may affect the real needs of this group. It is worth paying attention to, if possible, among others on psychographic aspects to build a more complete picture of a senior based on the way of spending free time, interests, personality type or even more detailed aspects, such as attitude to technical innovations. Thanks to these elements, it is possible to distinguish sub-groups more precisely and to identify the needs of seniors more precisely in order to better match both the educational offer and the strategy of using the opportunities offered by the modern market of products and services. Efficiency in the search for effective solutions increases thanks to participatory design (co-design). It is especially important when designing services and goods based on new technologies aimed at seniors.

The second important issue is the intergenerational aspect and the related breaking of intergroup and generational stereotypes. In this context, it is also important to remember about the other side of the interaction, namely young people. They range from volunteers specializing in ICT to entrepreneurs, programmers and designers creating digital solutions. They often see the potential of the sil-

ver economy, but are also often victims of stereotypical thinking about seniors by offering them services that they believe seniors need. For example, in one research activity, there was a group of young developers and designers who had difficulty seeing more than just the end customer in the senior group; these teams prepared banal solutions based on stereotypical thinking about seniors and their needs (Ochoa Daderska et al., 2021).

On the other hand, some young teams have managed to break through and apply an open-minded approach to see the elderly as a potential partner, which allows them to better penetrate into the essence of the real problems faced by the target group.

Thanks to joint action, not only were intergroup stereotypes broken, but real needs were discovered and better solutions were proposed. An intergenerational participatory approach enables direct interaction between solution developers and potential recipients, providing benefits to both parties (Marzano and Ochoa Siguencia, 2018). Thanks to an unconventional approach, seniors have completely new possibilities of contact with the latest technologies, which go far beyond the standard forms of adult education dominating in relation to seniors (Gródek-Szostak, et al., 2020; Gródek-Szostak et al., 2019). For example, seniors have repeatedly participated in tasks related to the co-creation of new ICT solutions, from developing course content, through co-creating mobile applications with young programmers, to using the latest trends, such as virtual and augmented reality (VR, AR) and voice assistants (VA).

Summing up, the activity of Living Lab is an example of unconventional educational activities for seniors, based on an active participatory approach to new technologies and the silver economy. It is worth treating seniors not only as recipients, but also potential partners who can contribute to solving their own problems in the area of digitization. On the other hand, such an approach requires the inclusion of young/adult entrepreneurs, designers and programmers and even volunteers, as young enthusiasts of new technologies who also need support to make wider use of the potential of seniors. Such a comprehensive approach can effectively break intergroup stereotypes by referring to the specific desires, needs and aspirations that this target group has, as well as other age groups.

## 4. Conclusion

The digitized world is increasingly dominating our lives, and the SARS-CoV-19 pandemic has forced the intensity of the use of technology in everyday life. A wide range of activities, including education, shopping, navigation, health, administration, banking, entertainment, music, movies, photography, social media are performed in the large “digital room.” How many different kinds of things we do through digital sources show how dominant this technology is in our lives.

In the future, the world will focus on digital technology. Though they dominated the world, digital technologies developed faster than any innovation in human history. Technologies have the potential to be an excellent equalizer by improving connectivity, financial inclusion, access to education, healthcare and public services. Services available without time or site limitations (and even devices) play an important role for all populations around the world.

Digitally-enabled people become socially enabled. Not just businesses but governments also provide users with digital opportunities, which have certain benefits in terms of the human power used, documents consumed and speed of services.

The rapid digitalization of the world has enabled the development of new platforms for adult learners to use. Various applications offer people opportunities to create and share digital materials. These tools have become an inseparable part of our lives and required an advanced mastery of them in the world of employment. Therefore, a lack of knowledge about digital tools and digital platforms may put adult learners in a difficult position in terms of social inclusion. While the digital sources available have the potential to increase social inclusion, lack of access to them, lack of knowledge about them, or lack of motivation to learn them could lead to social exclusion. Reduced or partial digital literacy could thus have many negative consequences in adult people's psychological, social, and educational life. The digital sources implemented during the ASIDE two years' project should therefore favour interaction, participation, and management of learning content on the internet.

Today, Information and Communication Technologies dominate our lives through the services they provide through various mobile devices, such as smartphones, tablets, laptops, etc. The access to information and services anytime, anywhere also requires people from all ages to use them for various purposes including health information, finance, shopping, navigation, etc. Although adult learners show interest in the technologies that make their life easier, it is also important to note that their digital skills are minimal. They were not exposed to the current technological breakthrough, and the differences in the use of digital tools have caused an increasing gap between the younger and older adult groups. This digital divide could be more significant in people with some specific demographic and socioeconomic characteristics, which makes them "digitally excluded." Therefore, increasing older adults' digital competences is of great importance for social inclusion.

Staff working with adults do not need a university degree and do not have sufficient knowledge and experience in this field. This situation negatively affects the effective implementation of adult education and causes a decrease in quality. The lack of practices and trainings that train trainers in the field of adult education is the most important obstacle in the development of adult education. That is why the outputs developed within the scope of the ASIDE Project can be used as a guide for the professionals working in adult education in terms of social inclusion in the digital environment.

However, being socially and digitally inclusive requires people to have certain digital skills. While these skills are easy to acquire for younger age groups, it is more difficult than expected for older age groups and disadvantaged groups. EU communities face the problem of the digital divide. Certain factors, such as advanced age, poverty, lack of motivation, low education, etc. create a digital divide and thus exclude certain groups. Therefore, education centres and governments should strive to help disadvantaged people to be digitally included through various projects or other educational opportunities. Countries should learn from each other's best practices and adapt them to their unique circumstances. Digitally-excluded populations should have greater opportunities, motivation and new benefits from digital inclusion. Defining the directions of further research, the authors will take up the issues of the construction and development of the silver economy, with particular emphasis on meeting digital needs.

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