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LA REPUTAZIONE NELL'ERA DIGITALE. RAPPRESENTAZIONI E PRATICHE DEL SÉ TRA CAPITALE SOCIALE E BENE RELAZIONALE

a cura di
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1. THE PLACE OF OLDER PEOPLE IN THE 5.0 SOCIETY – THE RIGHTFUL PRESENCE OR CYBEREXCLUSION

by Monika Adamczyk*, Mirosław Karpiuk**, Urszula Soler***

Abstract: *Nelle società del XXI secolo i problemi che le persone anziane affrontano a causa del rapido sviluppo della tecnologia sono al centro di molte discussioni. La velocità dell'innovazione introduce cambiamenti nella società e problematiche di adattamento oltre le capacità stesse degli anziani. Alcune domande alle quali cercano di rispondere gli autori del saggio sono: Ci stiamo volgendo verso un "panico" e un "determinismo" demografico o verso nuove opportunità creative di servizi tecnologici? Quanto siamo pronti digitalmente all'invecchiamento della popolazione? Il nuovo modello di Società 5.0 sarà inclusiva e partecipativa verso gli anziani? Quali conseguenze sociali vivranno le fasce più anziani di una continua evoluzione tecnologica? Per rispondere, gli autori prenderanno in considerazione le implicazioni sociali dell'invecchiamento della popolazione, i processi e i fenomeni che influenzano intere società e le istituzioni che si sviluppano a livello macrosociale.*

Abstract: *In the extremely dynamically developing societies of the 21st century, the problems that older people face due to the rapid development of technology are discussed increasingly often. The pace of technological change that is not adapted to their capabilities also causes rapid changes in society and causes many problems for older people. Are we not falling into "demographic panics" and "demographic determinism"? Could population*

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projections derail all positive options for human development in a modern 5.0 society model? Or, just the opposite, can the demographic ageing of the population be a trigger for creativity and innovative approaches in the provision of goods and services in the area of new technologies? To what extent are we prepared, also digitally, for the process of advanced population ageing? Will the new social model, which is Society 5.0, be a model in which older people can fully participate, or will they be excluded in many aspects? What effects will this new technological and social revolution have on older people? These questions, among others, will be answered in this article. In this text, we will look beyond an individual for the social implications of population ageing by analysing the processes and phenomena affecting whole societies and the institutions they create at the macro-social level.

Parole chiave: Anziani, società 5.0, sviluppo tecnologico, cambiamenti, cyberesclusione

Keywords: older people, society 5.0, technological development, changes, cyberexclusion

Introduction

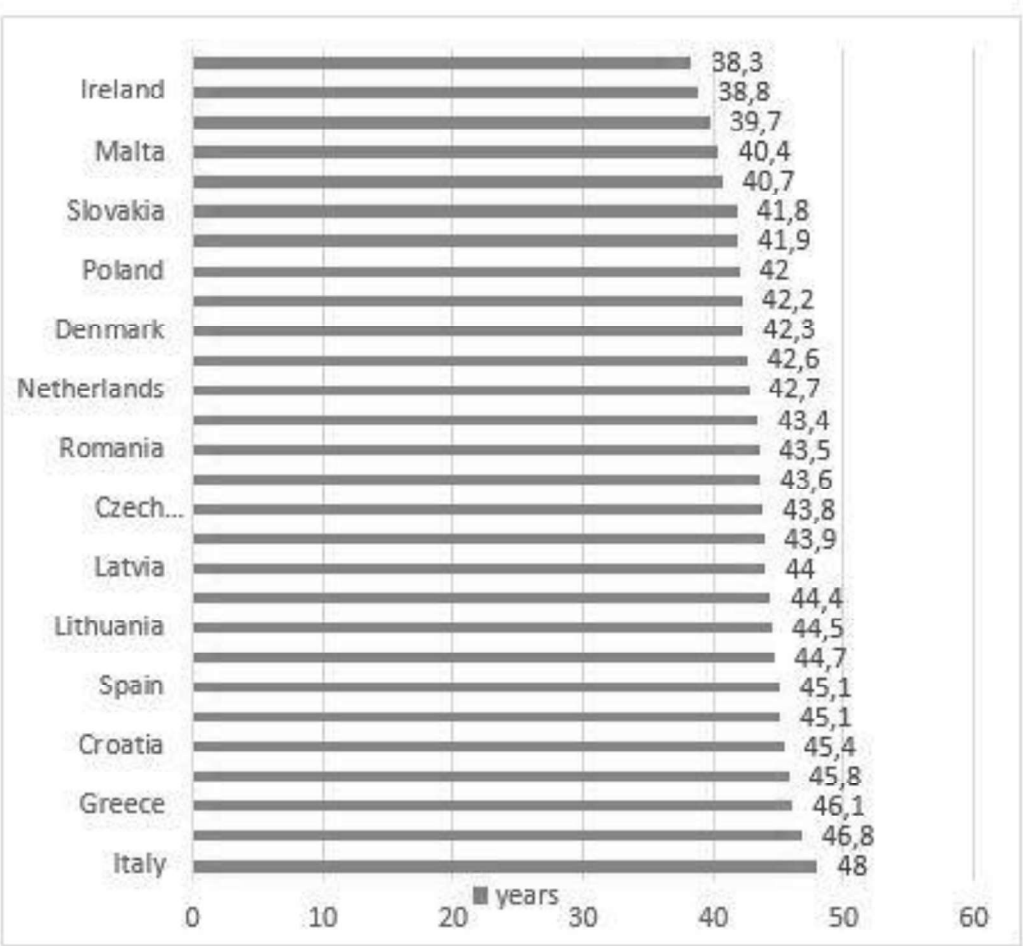
Ageing is not only a natural but also a universal process. People used to grow old and die, but as a result of the extension of human life, advances in civilisation and improvements in the quality of life in the 20th century, ageing has become common, and societies in highly developed countries have moved from being ageing societies to old societies. In 2015, in countries such as Italy and Germany, older people accounted for one-fifth of the population (Eurostat, People in the EU: who are we and how do we live? 2015). This process, irrespective of how it is described or measured, is expressed by a definite predominance of the population of productive and post-productive age and a small proportion of the population of the pre-productive age. The United Nations

Organisation recognises the age of 65 as the threshold of old age and distinguishes three phases in the development of society structure: 1) the young society phase – at least 96% of the population is under the age of 65, and a maximum of 4% is aged 65 or over; 2) the mature society phase – between 4% and 7% of the members of society are aged 65 or over; 3) the old society phase – more than 7% of the members of society are aged 65 or over; 4) an indicator of more than 10% is a state of advanced demographic old age (World Population Prospects, 2006).

The demographic data for Europe are alarming. Eurostat projections (the EU's population is projected to drop by 6% by 2100) show that European societies will age rapidly in the coming decades of the 21st century. By 2080, the population aged 65 or over in the 28 EU Member States is projected to increase to account for nearly 30% of the total population of the European Union (hereafter EU), and the proportion of the oldest population (80+) will then reach 12.3% (Eurostat 2023).

Since 2012, the median age of Europeans has increased by 2.5 years. Eurostat data from 1 January 2022 show that the median age of the European Union population was 44.4 years, 0.3 years higher than in 2021 (Eurostat, 2024).

Figure 1: Median age of the population in the European Union in 2022

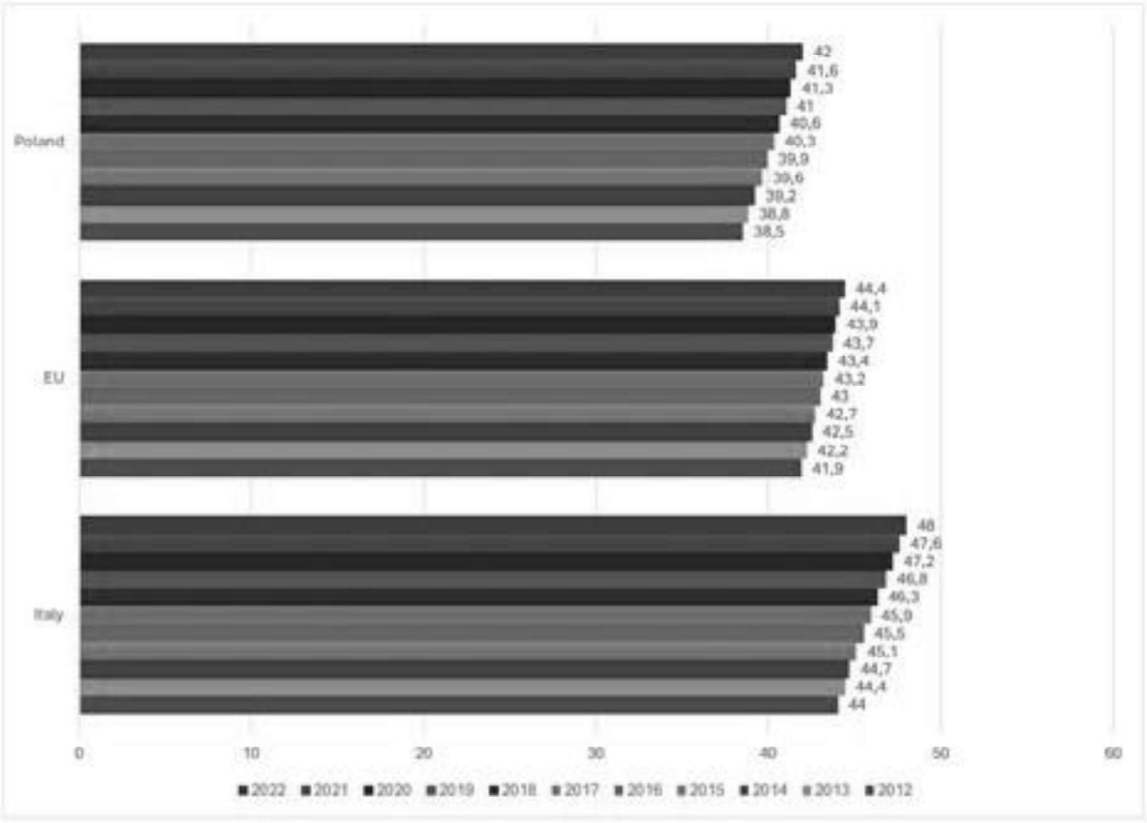


Ireland, Malta, Slovakia, Poland, Denmark, the Netherlands, Romania, the Czech Republic Latvia, Lithuania, Spain, Croatia, Greece, Italy; years
Source: Eurostat, Population structure and ageing, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Population_structure_and_ageing&action=statexp-seat&lang=pl; accessed on 28.01.2024

Over the past decade, the median age has increased from 41.9 years by an average of 0.25 years per year. This means half of the European Community's population was older than 44.4 years. It is not only the increase in the median age of Europeans but several other factors, such as rising life expectancy, falling fertility rates and migration, that contribute to the ageing of Europe's population.

In individual EU Member States, the median age ranged from 38.3 years in Cyprus, 38.8 in Ireland and 39.7 in Luxembourg to 48 years in Italy, 46.8 in Portugal and 46.1 in Greece. At the beginning of 2022, half of the population in Poland was older than 42 years, which is 2.4 years less than the average for the European Union as a whole. Between 2012 and 2022, the indicator grew in all EU Member States except Sweden, where it fell from 40.8 years in 2012 to 40.7 years in 2022 (Eurostat 2023).

Figure 2: Changes in median age in selected countries between 2012 and 2022



Poland, EU, Italy
Source: Eurostat, Population structure indicators at the national level, 2023

Another extremely important consequence of the demographic changes taking place in Europe in recent decades is

the constantly decreasing proportion of people of productive age, while the number of people in retirement is increasing. It was estimated that in 2022, young people of pre-productive age, i.e., 0 to 14 years, accounted for 15.0% of the population. Over the same period, people of productive age (15-64 years) accounted for 63.9% of the population. The proportion of older people (aged 65 or over) was 21.1%. In comparison, in 2021, these three population groups accounted for 15.1%, 64.1% and 20.8% of the EU population respectively, clearly indicating the progressive changes (Eurostat 2024).

In 2022, in EU Member States, the highest proportion of young people in the total population was recorded in Ireland (19.7%), Sweden (17.6%) and France (17.5%). The lowest proportion of this group was recorded in Italy (12.7%), Portugal (12.8%) and Malta (13.4%). In terms of the proportion of people aged 65 or over in the total population, Italy (23.8%), Portugal (23.7%), Finland (23.1%), Greece (2.7%) and Croatia (22.5%) showed the highest proportion, whilst Luxembourg (14.8%) and Ireland (15.0%) showed the lowest proportion. In 2022 compared to 2021, the proportion of people aged 65 and over increased in all Member States except Bulgaria, where it remained unchanged (Eurostat 2024).

The proportion of older people in the general population is expected to increase significantly in the coming decades. This may, in turn, lead to an increased burden on people of productive age to provide the social expenditure required by the ageing population concerning several related services. However, this is only one consequence of the demographic changes. The ever-growing group of older people is not only a group of consumers of social services in the area of care and health. It is also a constantly growing group of consumers of modern technology. As the next generation enters retirement age, they bring with them their habits, expectations and skills. The above observations raise several questions. Are we not

falling into “demographic panics” and “demographic determinism”? Could population projections derail all positive options for human development in a modern 5.0 society model? Or, just the opposite, can the demographic ageing of the population be a trigger for creativity and innovative approaches in the provision of goods and services in the area of new technologies? To what extent are we prepared, also digitally, for the process of advanced population ageing? Will the new social model, i.e., society 5.0, be a model in which older people can fully participate, or will they be excluded in many aspects? In this text, we will look beyond an individual for the social implications of population ageing by analysing the processes and phenomena affecting whole societies and the institutions they create at the macro-social level.

1. Cyberexclusion

In defiance of the presented regularities of contemporary demographic changes, the world glorifies youth, and European culture is dominated by the negative stereotype of an older person who is needless, unable to keep up with the pace of everyday life and modern technologies, excluded. Old age, more than other periods of life, expresses the duality of human fate. On the one hand, older people are an integral part of society, while on the other, they are treated as if they no longer belong to it. This is particularly noticeable in the use of modern technology. For the generations born in the post-war years, but also those born up to the end of the 1990s, a world without the internet or smartphones was a matter of course. First mentioned here is the General Generation, which includes people born before the end of 1945 (before the end of the Second World War) and living during the Great Depression. Within this generation, a distinction is made between those who entered

wartime as adults (born between 1901 and 1924) and those who were then teenagers and children (born between 1925 and 1945) – the so-called Silent Generation. The experience of the war defined the characteristics of this generation: these included conservative views, work, and pragmatism (McCrindle, Wolfinger, 2010; Berkup, 2014). Another generation that treats modern technology as a 'necessary evil' is the Baby Boomers (BB) generation, which, in turn, is the generation of the post-war baby boom (born between 1946 and 1964). The experiences of this generation were defined by the life model prevalent at the time, strongly patriarchal and hierarchical, which valued work, stability and social justice. This generation is now the largest group among older people (Zemke *et al.*, 2002; Timmermann, 2007). This generation often experiences cyberexclusion (Adamczyk *et al.*, 2022). Generation X, in turn, is the generation born between 1965 and 1980 and is a generation of sceptics, rebels and contesters. In place of the hierarchical nature desired by their parents, there is a backlash against authoritarian attitudes (Miller, Washington, 2011; Berk, 2013). At this time, technological development accelerated, which changed the perception of complex competencies, orienting development towards human beings – self-development, empathy, interpersonal communication, relationships, freedom of choice and action. In addition, it is believed that people of this generation are highly educated and much better able to cope with modern technologies (Berkup, 2014). In the context of using modern technologies in increasingly rapidly ageing societies, it is important to note the dynamic character of the ageing process and its inhomogeneity (Brunet, 2020; Chmielewski, 2020). It is also worth remembering that digitalisation is intensified by the pace of life, while the scale of transformations creates a new natural environment for humans, in which functioning requires the ability to quickly adapt to rapid and dynamic changes (Technology in the Service of Society. Will Poles become society 5.0?, 2020). This

situation requires us to understand that the extending old age period brings ever greater internal differentiation. Initially, the differences in quality and lifestyle between the stage preceding old age and its onset are hardly noticeable. Over time, involutional processes intensify and eventually, a person's independence and autonomy decline (Gawron *et al.*, 2021; Kilian, 2020). Since ageing is a dynamic and highly individualised process, it cannot be described as a homogenous phenomenon (Rescher, 1987; Adamczyk, 2019). Given this, the literature points in different ways of periodising old age. It is proposed, among others, to distinguish between young-old, middle-old and oldest-old (young-old – persons aged 60/65-74 years; middle-old persons aged 75-84 years, and oldest-old – persons aged 85 years and over), and sometimes a period of longevity is additionally distinguished (WHO, 2002). The 'young-old' are most often people still physically and mentally fully functional. Not only are their abilities to use modern technology quite different from those of older age groups, but their needs to use modern technology are also different. People who fall into the category 'oldest-old' are those who require assistance to perform certain everyday activities. Their capabilities and motivation to use the virtual world are completely different from those classified as 'young-old' (Gawron *et al.*, 2021:17). This internal differentiation means that older people's presence in the virtual world varies, depending on what psycho-physical state a particular person is in. People of the so-called third age use the Internet to deal with official matters, e-banking, communicating with their relatives, and more and more of them do their shopping online. There are also portals on the web designed specifically for seniors, where they can find articles and advice tailored to their needs or register for a forum. People of the so-called fourth age rarely use the Internet, and these are the people most often referred to as being at risk of cyberexclusion (Adamczyk, Betlej, 2021).

2. Modern technology and ageing societies

People aged 75 and over are particularly vulnerable to social exclusion, including cyberexclusion. This type of exclusion is often defined as a lack of, or limited ability to, use modern forms of communication (Motylińska, 2019:599). Regardless of the country or culture, it is claimed that the digital exclusion of older people results from a lack of knowledge necessary to use digital technologies and digital services and from various concerns about using them (Holgersson *et al.*, 2021). Therefore, could the population ageing and projected changes in the age structure of populations in developed and developing societies derail all positive options for population development in the modern 5.0 society model? Or, just the opposite, can the demographic ageing of the population be a trigger for creativity and innovative approaches in the provision of goods and services in the area of new technologies? The answer to this question is not unequivocally positive. The use of information and communication technologies (ICT) by older people can improve their quality of life (Carlo, Sourbati, 2020). This is due to several important factors. Firstly, Europeans are living longer, and although life expectancy varies across EU Member States, all countries report a gradual growth. In 2021, the overall life expectancy across the Community was 80.1 years. In 2022, longevity expectations for Europeans increased to 80.7 years. Eurostat data shows in 14 EU Member States, life expectancy is above the average for the whole Community. In 2022, in four countries, it was at the level of 83 years or more. The highest life expectancy is recorded in Spain (83.2 years). Next are Sweden (83.1 years), Italy and Luxembourg (83 years). The shortest life expectancy in the EU is observed in Romania (75.3), Latvia (74.8) and Bulgaria (74.3) (Eurostat, 2023). The fact that Europeans live longer has many health consequences. Progressive involution processes mean that the functional capacity

of older people (especially those in the oldest age groups of 75 years and over) is declining. Thus, the need for support in everyday life is increasing. For people with reduced mobility, activity in the virtual world is associated with 1) feeling less lonely or depressed, 2) an increased sense of independence and 3) personal development (Shillair *et al.*, 2015). It is difficult to judge whether a longer life for seniors will mean a longer period of health and physical ability in the future or whether it will be a time of senile disability. However, no matter the future scenario, the digitalisation of life can bring either increased agility or exclusion to older people. How the situation develops largely depends on education and acquiring new skills by older generations. It should also be noted that education also takes place in cyberspace, especially when it involves using modern technologies, which is why great importance should be attached to cybersecurity (Adamczyk et al, 2023). Cyberexclusion can lead to the marginalisation of older people with regard to the consumption of goods and services, which are often offered through digital channels (Bakalarczyk, 2021:38; Givskov, Deuze, 2018). How essential this channel is for the flow of services was evidenced during the SARS-CoV-2 pandemic; during the pandemic, not only in Poland, seniors had considerable difficulties in accessing primary medical care services. Online doctor consultations were inadequate and often impossible due to the difficulties in contacting the medical facility using means of distance communication or a lack of skills to use them (Starzewski, 2021; Mihailidis *et al.*, 2022). In the case of Poland, the process of cyberexclusion no longer concerns – as it was just a few years ago – limited access to computers, smartphones, and the Internet. The problem is the reluctance of seniors to use digital services because, in their opinion, they require too much learning. This is based on a belief rather than a real negative experience of using them (Badowska, 2021). According to research conducted in Poland in 2021, seniors lack training in operation rules

of more complex financial products and making informed financial decisions. Making cybersecurity a fundamental part of digital integration can minimise concerns related to embracing technology (Holgersson *et al.*, 2021:12; Bruggencate *et al.*, 2019; Beneito-Montagut *et al.*, 2022; Rasi *et al.*, 2021). Among seniors, innovative payments such as foreign currency cards, contactless payments and mobile payment systems are still not widely used (Ibid.:18; InfoSenior, 2020; Kochalska, 2018; Wierzbicka, 2022).

3. Digital technologies and the Internet in the lives of seniors

In 2021, 92.4% of households in Poland had Internet access. This was 2% more than in the previous year. Nearly 92% of households had access to broadband internet at home (Społeczeństwo informacyjne w Polsce w 2021 roku, 2021). By comparison, in the first half of 2015, computers were in 72% of households and internet access in 71% (Batorski, 2015). ICT are used less often by older people (Batorski, 2015:380). In 2018, 70% of people aged 65 and over did not use the Internet (CSO, 2020:25). More than half of people aged 65-74 had never used a computer. In 2019, the proportion of these people was 54.4% (compared to 59.7% in 2018). The largest number of people who had never used a computer was among older people with primary and lower secondary education (87.1%) (CSO, 2021). Analysing the reasons why older people do not use the web, it should be stated that the most important factor is the lack of appropriate skills (Adamczyk, Betlej, 2021; Tangi *et al.*, 2020). This was the case for almost 44% of people aged 65+, including more than 38% of people aged 65-74 and nearly 55% of those aged 75 and over (CSO, 2020:59). Between 2014 and 2019, there was a clear increase in the number of seniors using digital technologies and the Internet – from 60% to 89%. However,

numerous studies show that only 45% of them (aged 65-74) use the Internet more than once a week. There is no doubt this depends on age, education, socioeconomic status, access to technology, training and trust. Just as important as the use itself is how we use the internet. For those older people who used the Internet (24%), it was mainly a source of information, communication, and banking services: 1) 22% – source of health information; 2) 21% – source of information on products, services and their prices; 3) 18% – use of electronic mail; 4) 11% – use of communication programmes enabling telephone or video calls; 5) 16% use of online banking (CSO, 2020).

4. Security threats for seniors on the web

There is an understanding in source literature that the needs of older people are no different from those of any other human being. It is also important that they cannot be analysed separately from other social groups and outside of societal reality (Bruggencate *et al.*, 2017). For older people, the need for security, understanding and support from others are at the forefront, unlike the young. Loneliness and solitude are particularly acute during this period (Trafiałek, 2006; Raport o samotności, 2021). According to data from the Central Statistical Office (CSO), one in three people over 65 and half of those over 80 live alone in Poland (US, 2020). Among the needs of seniors, it is possible to distinguish those that are more intensive, often due to the degree to which they are satisfied or the real risk of deprivation, i.e., the need for security, independence, belonging and being useful (Skrzypniak, 2018). Older people are at risk of depression, loneliness, discrimination, marginalisation, emotional problems, poverty and inadequate housing, adaptation problems, violence, crises and generational conflicts (Fal *et al.*,

2016). In recent years, these risks have been supplemented by those related to lack of use (the cyberexclusion described earlier) or, more and more often, the use of the Internet: 1) threats to financial security (unauthorised access to finances, fake payment links); 2) identity theft; 3) cyberharassment; 4) fraud on the Internet (Coluccia *et al.*, 2020; Wnęk-Gozdek, 2019; CBOS, 2018; Vandeweerd *et al.*, 2016). Virtual activity is a significant challenge for older individuals, requiring them to learn new skills and overcome the fear of modern technology. With the help of modern technologies, seniors can acquire knowledge tailored to their capabilities through e-learning and specialized software (Adamczyk *et al.*, 2023). In this context, understanding the essential factors influencing the intention to use digital technologies by older individuals is crucial. Knowledge of these factors can aid in developing technologies adapted to the needs of this social group. Such appropriately designed and contextually prepared technologies may enable conscious and more effective shaping of digital reputation for older individuals, as well as understanding the difference between digital identity and digital reputation (Majeed *et al.*, 2020). Understanding the needs of older individuals related to the virtual world can also contribute to the development of technology acceptance models specifically designed for the aging generation (Schroeder *et al.*, 2023). These skills support the proper shaping of digital reputation, requiring knowledge of four characteristics of the Internet as a social space (created by people).

- *Permanence*: Information is stored "forever" and can be accessed at any time.
- *Searchability*: Online information on almost any topic is easily searchable.
- *Copyability*: The combination of "ctrl c" and "ctrl v" provides the ability to change the context of information, thereby altering its meaning.

- *Invisible audience*: Passive users who prefer reading over creating digital content, and those individuals whose presence we may not be aware of at the time of publishing information (Tirocchi *et al.*, 2023).

Virtual activity is a big challenge for older adults, as it requires learning how to acquire new skills and overcoming the fear of modern technology. Thanks to modern technologies, seniors can acquire knowledge adapted to their abilities using e-learning and special software (Adamczyk *et al.*, 2023). Using ICT, however inspiring for seniors, may carry various risks, such as *webaholism* (Wójcik, 2020; Tyler *et al.*, 2020; Taipale *et al.*, 2019). Despite these threats, we should bear in mind that during the pandemic, the digital activity of financial institutions intensified, and the importance of digital customer self-service also increased. However, large groups of citizens, especially seniors, are still unprepared for what threatens their security, not only economic security. Nowadays, society uses ICT systems very often as part of its activities. It is a common practice. Some older people also use the Internet, including in matters relating to everyday life. Without the use of networks and information systems, life is becoming increasingly difficult. Therefore, the state must counteract social exclusion and support those environments that find it difficult to navigate the virtual world. This support must be systemic and not just ad hoc or individual. ICT systems are responsible for the stability of the state and its economy and must, therefore, be suitably protected. They also play a vital role in society, and, therefore, their reliability and security must be a priority for the actions of those responsible for the operation of these systems, which applies to both the public and private sectors (Bencsik *et al.*, 2023:89-90). This protection is all the more desirable because these systems are used by people who often do not have sufficient cybersecurity knowledge. This is something that should be paid

particular attention to. This category, unfortunately, also includes older people who do not have adequate skills in this regard. The computerised world requires digital competence. This applies mainly to older people, as this is an environment highly vulnerable to cyberattacks. In a state that calls itself a modern state, digital competencies are particularly important as they facilitate faster circulation of information, better contact or cheaper performance of public tasks. Relationships between entities using digital tools are much more convenient than those requiring face-to-face interaction between the parties. In a changing reality, computerisation is inevitable. So, it is necessary to adapt to the new digital circumstances. The information society is not only a society that uses digital tools to interact with public administration but also one that uses new technologies in everyday life. The dynamics of the changes resulting from the development of technology and its widespread use in many areas of life are forcing society to deepen its knowledge in this area and broaden its digital skills. Upgrading knowledge and acquiring new skills makes it possible to adapt to an evolving reality in which cyberspace is constantly used for all activities. This is extremely important because digital competencies allow access to a wide range of services that make life very easy (Bencsik *et al.*, 2024:259). Therefore, research on new technologies seems particularly important and desirable in societies characterised by low levels of trust in technology, which often depends on the level of knowledge of technology (Ejdys, Soler, 2023). Technological advancements in access to information have made digital competencies one of the key determinants of quality of life. Social activity now largely relies on the Internet. Access to the web affects every aspect of social and private life; however, it should be emphasised that cyberspace is not a natural environment for people (Kaczmarek, 2022:30). In the media coverage we need to start talking about the negative impact of the technological environment

and cyberspace on the individual and society. Virtual spaces allow us to satisfy our senses with visions we can't resist. Thanks to technological achievements, modern man increasingly escapes into the virtual world. We simulate reality, enriching the form of experiences of the present world, desiring an easy future. Cyberspace is a constantly evolving and expanding environment that is being used for an increasing number of purposes. Cyberspace takes up more and more of people's everyday lives. It is in almost all areas of human needs. On the one hand, it helps promote people's welfare, educates society and improves the quality of life. On the other hand, it inflames ethnic and religious tensions, sows discord and causes suffering. The ease of access to cyberspace and the range of hacking tools available, in combination with the inherent insecurity of the Internet, mean many different threats (Pieczywok, 2023:41). The dynamic development of information technologies has contributed to the emergence of a new field of activity known as cyberspace. This represents one of the most significant changes in the security environment, bringing forth entirely new threats. A considerable portion of these threats constitutes social risks. They have cultural roots, such as the construction of virtual reputation and identity, as well as interactions in social networks. These threats also affect older individuals. This is due, among other things, to the fact that the mentioned virtual reputation has at least two dimensions: how we see ourselves and how others think and write about us. This simple definition is particularly applicable when it comes to older people using the Internet. Therefore, reflection on online identity is crucial regardless of whether one is an active or passive Internet user. This is associated with the fact that fraudsters, to achieve hidden intentions and influence others, utilize social engineering. Basic methods include persuasion, manipulation, intensifying fear, and diverting attention. Although they differ in their modes of operation, they share the common

element of exerting pressure on individuals, mainly relying on emotions such as fear, compassion, or love, which are powerful emotions, especially among older individuals (Adamczyk *et al.*, 2022). In the media, there are regular reports of new victims falling prey to scams like the "grandchild" or "police officer" methods.

On the other hand, thanks to the availability of new communication and information technologies, they can satisfy the need for contact with another person and reduce feelings of loneliness. Access to the web and services such as medical, social, legal and vocational advice, for example, provides a sense of independence and belonging to a virtual community, often helping to alleviate existing psychological problems. Typically, older people are less skilled in using new technologies. This is a serious problem that can often lead to cyberexclusion. In addition, it means limited opportunities to participate in social life. This is a serious problem that very often can lead to digital exclusion and difficulties in establishing a proper digital reputation, which means limited opportunities to participate in social life. The main reason given is the lack of skills and motivation to learn new technologies and the lack of financial resources to pay for the Internet. The ageing of society, limited opportunities for older people in the labour market, severing interpersonal ties as a result of the increasing pace of life and the associated growing sense of loneliness are facts that few argue with today. These cause mature and life-experienced people (illness, limited opportunities) to often feel socially excluded (Pieczywok *et al.*, 2022:310-311). In today's world, new threats have emerged concerning the organisation and functioning of the public space. These threats include all concerns accompanying human activity in cyberspace – threats resulting from the development of technical civilisation. Today, we are facing a clear evolution of threats, among which the most acute are those resulting from human presence in cyberspace (Pieczywok, 2019:62).

Conclusion

According to the official guidelines of the Japanese Cabinet Office, society 5.0 is defined as: "a human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space" (Tomański, 2019). This is, therefore, supposed to be a new reality that is better for people but requires new solutions and a redefinition of the social model. In increasingly ageing European societies, this seems to be the only way to integrate older people socially and make them comfortable in an increasingly dynamic reality. The Society 5.0 model proposed by the Japanese offers many facilities that could help older people, such as the possibility of collecting health data on an ongoing basis from patients with smart gadgets. They will monitor their parameters, while algorithms will analyse this information, and the system will efficiently allocate adequate resources to support older and ill people. Virtual reality and the creation of the global information space of the digital age, which are the foundations of Society 5.0, have become the beginning of a new post-modern quality of life, which, however, is susceptible to all kinds of adverse phenomena occurring in cyberspace. The more humans penetrate the virtual realm, the higher the risk of undesired events in this area. As part of the progress, people are creating new risk parameters, and cyberspace is nowadays a constant element of this risk. One of the attributes of the dynamic development of cyberspace is large scale, both in terms of the sources of information themselves and their recipients. Large scale, universality and globality characterise today's information, which is confronted with the same massiveness, universality and globality of potential threats. Such threats are not only technical disruptions to the proper functioning of cyberspace as intended but also interference with the qualitative and substantive aspects of the

information itself. This is related to the dissemination of false information, manipulation of information, as well as dangerous ideologies or propaganda. A stable cyberspace is a guarantee of the proper functioning of the state (Drabik, 2022:22-23). Older people must also find their way in this virtual space, as it is even becoming indispensable for meeting basic needs and certainly makes life much easier, provided that digital tools are used skillfully. The use of information technology by older people is relevant to many areas of their lives, as well as their potential as consumers when purchasing various goods and using services. The fight against the cyberexclusion of seniors is one of the drivers for increasing the rates of active ageing and sustainable development. It should be borne in mind that failure to properly prepare the digital services market for this category of recipients will expose them to many dangers (Rosales, Fernàndez-Ardévol, 2020; Sala *et al.*, 2020). Information space is a natural environment in a digital world. Information and its free flow is the result of civilisational development, but unfortunately, in addition to its cognitive value, it also carries threats, including those in the form of disinformation. These threats distort the clarity of the message and make it difficult and sometimes impossible for the recipient of the information to assess its veracity (Capogna, 2022). It is, therefore, necessary to take measures to maintain the reliability of the channels of information transmission and, consequently, to expose and combat disinformation, as well as to equip users with the appropriate tools to recognise and tackle it (Gergelewicz, 2022:83). Older people are also exposed to information manipulation, which is why the state must take special care of them and to provide them with a complete training package tailored to their digital skills.

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