Threats for adults aged 45+ associated with technological development

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Abstract:

There are many dangerous situations for adult development related to the progress of new information technologies. The article presents a new approach to the issue of disability in the context of the changing ITC technologies and the phenomenon of aging populations. Polish society, like many European societies, is subject to the process of aging. People in late adulthood find it more difficult to learn to use new technologies more easily. This means that an increasing number of people may have problems in full-fledged functioning in society. They will become disabled in the light of the WHO definition. Appropriate education is the way to counteract this phenomenon.

> '*The immersion of modern civilization in the media causes an increasingly stronger relationship of our actions with the virtual world to occur. Research on this world may have a significant impact on explaining a number of processes related to how information is processed by the brain and, particularly so, the problem of transgression.*'
>
> B. Siemieniecki (2001)

1. Introduction. Humanity in the post-modern world

As A. Giddens observes, 'modernity inevitably globalizes, and the destabilizing consequences of this phenomenon are combined with the circularity of its reflective nature, creating a universe of events in which risk and threat take on a new form' (Giddens, 2008a, p. 125). Although knowledge and technology have always accompanied a man and the process of civilizational development (Gehlen, 2001, p. 145), it should be emphasized that we are currently observing an intensification in the occurrence of transformations and a growing significance of knowledge in these transformations, which has been noticed not only in the theory of economics but also in pedagogical sciences. Thanks to new technologies, a new meaning is acquired not only by various everyday objects, distances and the communication related to them or by the different aspects of economic life but also education, work, leisure time and even art (Zaczyński, 1986, Tanaś, 2007, Lewowicki, 2011, Jupowicz--Ginalska, Jasiewicz, Kisilowska, Baran & Wysocki, 2018).

Manuel Castells, by noticing that the world in which we live has changed significantly compared to the one from 40 years ago, created a kind of metaphor of modernity, describing it as the '*Internet galaxy*' (2003). This term is one of many commonly used in reference to today's world, full of increasingly newer technologies, the world in which we live. We are witnessing a digital revolution that covers all aspects of our human activity.

When describing the above-mentioned changes of the last 40 years associated with the rapid development of digital technologies in his work *The language of new media*, Manovich stated:

> 'The media and the computer – Daguerre's daguerreotype and Babbage's analytical machine, Lumiere brothers' cinematograph and Hollerith's tabulator – are interconnected. All existing media have been converted into numerical data comprehensible for a computer. As a result, graphics, moving images, sounds, shapes, spaces and texts are becoming computer data on which calculations may be made' (Manovich, 2006, p. 90).

The appearance of new inventions and technologies that were new at the moment of their appearance and, with time, became widespread was the key to development – the phenomenon is described in Table 1.

Table 1. Stages of economic development in relation to the appearance of new technologies

The first wave 1785	It was started by the construction of the first metallurgical furnaces in England long before this year and the implementation of innovations in the weaving industry, including Kay's flying shuttle and a weaving machine powered by a steam engine.
The second wave 1845	It was initiated by the popularization in the use of the steam engine (James Watt's invention) in many areas of the economy and the rapid development of rail networks, which significantly improved communication and transport, reducing the time it took to move people, as well as goods.
The third wave 1900	It was started by ground breaking inventions, such as the bulb and the combustion engine. These inventions have changed the face of the existing industry, enabled the development of new branches and introduced improvements to the existing ones.
The fourth wave 1950	Caused by the implementation of already existing knowledge to modernize existing products (e.g. aircraft) and the emergence of entirely new industries handling, for example, the production of components for calculating machines and, in the future, for computers.
The fifth wave 1999	It was initiated by the rapid development of digital networks and the Internet, which led to the appearance of new forms of social activities, products and services related to new technologies.

Source: Author's own study based on: G. Wronowska (2006), *Gospodarka oparta na wiedzy jako etap ewolucji współczesnej gospodarki.* (materiały pokonferencyjne), Szczecin 2006. http://konferencja.edu.pl/ref8/pdf/pl/Wronowska-Krakow.pdfcc

Table 2. Change in the age structure of the population in the years 1990-2010

Age	Population in years (%)										
	1990	**1995**	**2000**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
0-17	29	26.6	24.4	21.9	21.2	20.6	20.1	19.6	19.3	19	18.6
18-44	40.1	40	39.8	39.9	40	40	40.0	40.1	40.1	40.1	40.1
45-59/64	18.1	19.6	21.0	23.0	23.5	24.0	24.2	24.3	24.4	24.4	24.4
60/65 ↑	12.8	13.8	14.8	15.2	15.3	15.4	15.7	16	16.2	16.5	16.9
Average life expectancy expressed in years											
women	75.5	76.4	78.8	78.9	79.2	79.4	79.6	79.7	80.0	80.1	-
men	66.5	67.6	69.7	70.5	70.7	70.8	70.9	71.0	71.3	71.5	-

Source: GUS (2011). *Podstawowe informacje o rozwoju demograficznym Polski w latach 2000-2010.* Warsaw: GUS (informational note).

The briefly described process of technological development and forming of the knowledge society is accompanied by a different demographic process, very important from the perspective of pedagogical and, in particular, and ragogical research. The ageing of society is a slow but seemingly inevitable process. It is inseparably connected with the process of technological development which evokes the progress of medicine and the improvement of living conditions. These factors cause not only an increased life expectancy (which is commonly known) but also a reduction in the mortality rate across all age groups, which causes the expansion of age groups formed by older generations. In combination with a decrease in the rate of natural increase (births), this results in significant demographic changes. This is illustrated in Table 2, which shows the dynamics of this process over the last thirty years.

An analysis of the data presented here indicates that:

— people in the post-working age and people in the working non-mobile age are forming (proportionally) increasingly bigger social groups,

— the group of people in the pre-working age is becoming (proportionally) smaller.

This is associated with various social effects, not only of economic but also cultural and social nature. That is because the mere extension of the retirement age or increasing the pension contribution does not pose a solution to the problem, as there occurs a peculiar dissonance, whose essence lies in the fact that the development and modernization of technologies is accompanied by the continuous ageing of the society. A specific group of problems arises, related to the way of changing the situation on the labour market, obtaining information (mainly its excess), education and the use of cultural goods in a society whose basis is formed by information and communication technologies. Among these problems, particular attention should be paid to the issue of technological barriers.

Modernity and technological progress are associated with the notion of a knowledge-based economy (KBE) which emerged at the beginning of the 1990s. Economists were initially convinced that a KBE will be a way to eliminate inflation and cyclical fluctuations in the economy. However, life has shown that phenomena typical of the pre-1999 market economy are still present, albeit in a slightly modified form (Woronecki, 2001). It turned out that new technologies are not able to eliminate the influence of market forces such as: interest rates, global demand or natural disasters, which periodically also have an impact on the business cycle. We do not wish to pursue a discussion of economic nature, which we do not feel prepared for, but we must mention, citing the conclusions reached by researchers in this field, that it is an 'economy in which there operate many enterprises that centre their competitive advantage around knowledge' (Koźmiński, 2002, p. 155).

The emergence of a new type of economy is strictly related to social changes. Not everyone will agree with the opinion that economic changes always evoke changes in the society, perhaps sometimes the reverse may be true but, undoubtedly, and a new type of economy is not an abrupt phenomenon.

The fundamental role in the development of a knowledge-based economy, as its name suggests, is played by knowledge. It should be treated as the main factor shaping the structure of production, as well as economic growth and social progress. In a society based on this type of economy, learning as a way of acquiring knowledge is the most important process, also characterized by its economic dimension. This leads to revolutionary changes in education. According to Romuald Dobrzeniecki and Wojciech Szczęsny, education has undergone four major revolutions related to the emergence of new communication tools: speech, writing, the printing press, and the one which is still ongoing currently, related to digitalization. As emphasized by the quoted authors, 'Effects of this revolution, which are already visible, include media pedagogy and global education, developed mainly thanks to the Internet.' (Dobrzeniecki, Szczęsny, 2009, p. 113).

The Internet and digitization also create new opportunities in shaping social relationships. In this context, M. Tanaś draws attention to anonymity, pointing to the possibility of creating masks as a traditional element of social and interpersonal relationships which is present in a new way.

'Why, then, shouldn't a man – homo sapiens sapiens – reach for this eternal weapon of animals and insects? And indeed he does, covering his face or only a part of it. He uses a mask across various cultures and geographical areas. He used it in the ancient Greek theatre, as well as during carnival celebrations and other masquerades. Masks became an indispensable prop in a court theatre and commedia dell'arte. Even nowadays they are used for magical and ritual purposes. They arouse fear and bring laughter, reminding us about their immanent traits – the ability to conceal, liken and transform. They evoke emotions and allow one to cross borders' (Tanaś, 2016, p. 5).

Anonymity, new opportunities, change of distance, sense of freedom – all these factors create new, great opportunities for creation and action, however, they are also a source of threat.

2. New areas associated with the risk of exclusion

A society in which information and knowledge play a key role, and education and acquiring knowledge constitute the fundamental element of advantage and adaptation, does not carry only significant economic changes with it. It also brings important social changes and, consequently, the need to redefine, or perhaps it is better to say, redetermine the semantic scope of notions such as the lack of social adaptation or social exclusion.

According to the definition formulated by the World Health Organization (WHO), disability is defined as follows:

'A disabled person is a person in whom significant damage and limitations in the proper functioning of the body result in the inability to, difficulty with or limitation in properly functioning in a society, taking into account factors such as sex, age or external factors' (WHO, 1980).

Such an approach to the phenomenon of disability or lack of adaptation connects it with the problem of social exclusion, and indicates the possibility of emergence of new categories of disabled and unadapted individuals who will not be able to function properly in a knowledge society due to their inability (for various reasons) to use technologies or the ability to only use them to a very limited extent. We should expect that, gradually, terms such as dyslexia or dyscalculia are going to be replaced by dysvirtualia, cyberschizofrenia or Internet-related diseases. Similarly to how civilizational development (the invention of writing and, in particular, the alphabet) caused communication disorders and the analysis of their causes, the identification of such phenomena as dyslexia or dyscalculia, associated with perception disorders, by the same token, nowadays we encounter individuals who, despite their genuine willingness and even compulsion, are not able to effectively use new technologies, we do not know the aetiology of these phenomena yet, it is highly likely that they are associated with atypical perception in these people, which causes this 'dysvirtualia'. Many users of the Internet create their Avatars there – their representation in the virtual space. This mainly applies to gamers, but not exclusively, this is also the case on various social media websites. Sometimes, when a person begins to overly identify with their avatar (which is sometimes completely different from its owner), there occur a number of difficulties in functioning and a split (Greek schisis) between thinking, behaviour, emotions, the motivational sphere and the expression of emotions. External observers may note a lack of adaptation in such a person's behaviour or emotions or the content of their utterances to real-life situations. Thus, this phenomenon may be called cyberschizophrenia.

People who are unable to function properly in a society, whose basis of functioning is formed by technology will somewhat naturally be subject to the phenomenon of social exclusion. As emphasized by Giddens, 'Politicians began to talk about social exclusion, and sociologists were the first to use it in relation to new sources of inequality' (Giddens, 2008b, p. 346). This concept draws attention to a number of factors that cause individuals or entire groups to lose the chances that most people have. It is worth quoting after Giddens that social exclusion may be discussed with respect to economic, political and social categories (Giddens, 2008b, p. 347). Traditional sources and causes of social exclusion include housing conditions and neighbourhood, including the place of residence (e.g. the countryside), homelessness, lack of social adaptation, disability (see Giddens, 2008b, p. 348-353).

The phenomenon of exclusion is associated with social and technological development. F. Mahler describes this phenomenon as: 'the social position of these groups which have been degraded to a peripheral status as a result of being dominated by central groups' (Mahler, 1996, p. 193). It is worth to supplement the cited thought with a comment by the quoted author, who adds that this is also the case when the dominated groups [are] 'stripped of various rights due to their limited access to power (political, economic, cultural), in comparison to people situated in the centre' (Mahler, 1996, p. 193).

When we try to describe this phenomenon, we may state that social exclusion is:
— the inability to participate in aspects of social life deemed as important – economic, political and cultural ones;
— the denial of fundamental social rights, which ensure the citizens' positive freedom to participate in social and economic life, and thus giving meaning to their fundamental negative freedoms;
— the process of erosion of the recognition and respect for civil rights on which the means for living and living conditions depend (Gore, Figueiredo, 1996).

In all the enumerated aspects, the increasing importance of technology may influence the increase in the process of social exclusion. It is worth adding that social exclusion is both a state (a trait) and a process. It has its objective dimension (deprivation and violation of social rights), as well as a subjective one (sense of social inferiority or a loss of status).

In a society based on knowledge, where information technology, new media and, in particular, the Internet play a key role in communication and many, if not most, of the forms of participation, access to means of

communication, the Internet and media is a key good. It determines not only access to the remaining goods but also the participation in social, economic, political or cultural life. This access divides people and even whole nations and may even lead to the exclusion of entire communities. It is a division which is not so much natural, as it is pre-existing, but, at the same time, it is enormous in its scale. WNDP data indicate that, in 1999, users of the Internet accounted for 26.3% of the population in the United States of America, and only 0.04% of the population of South Asia, while in terms of the whole world this number totalled 2.4% (Giddens, 2008b, p. 494).

When analysing the phenomenon of new areas of exclusion, one should point to the violation of principles which should be recognized as a set of good manners and a code of conduct in a computer network[1], but also as an important phenomenon of the emerging cyberculture. People who violate the rules of network etiquette, as well as typical cyber vandals, such as those destroying someone else's work or stealing information, are a new form of lack of social adaptation, characteristic of the knowledge society. Undoubtedly, this phenomenon may be classified as a disorder in the social adaptation of an individual and it often results in the exclusion of individuals from the access to various goods of the cyber world or from the proper functioning in virtual communities. This, in turn, leads to various limitations in functioning in the real world, caused by a lack of information, ostracism, etc. It should be added here that, unlike in the case of various manifestations of lack of adaptation leading to exclusion in a traditional society, in the virtual world, lack of adequate knowledge or skills is much more often (though certainly not always) the reason for this phenomenon. However, regardless of the reasons, it is a situation in which these people try to solve their problems by acting contrary to the reality and applicable rules.

A different area characterized by the danger of exclusion, strictly related to the emerging knowledge society, is the limitation of access to new technologies, in particular, the Internet, caused by various dysfunctions, e.g. the above-mentioned disvirtuality. Individuals whose access to virtual reality will be limited due to an impairment affecting their perception or the processing of information will be gradually excluded from social, economic or cultural life. The process will be quiet and gradual, it will not be associated with scandals, but only with the tragedy of people deprived of access to what is rightly owed to them, opportunities to participate in culture, the possibility of formulating their own opinions or, finally, the chance to earn money. 20-30 years ago (although it happens nowadays as well), dyslexics were confused with mentally disabled people or called lazy dunces. It is quite possible that this will be the case with those who, for reasons outside of their control, associated with the particular way their body is structured, will have difficulties using new technologies and, irrespective of their other, sometimes outstanding skills (an analysis of handwritten texts indicates that, among others, Leonardo da Vinci, Albert Einstein, Thomas A. Edison were dyslexics), they will not be able to function in the society on equal terms with its other members.

Another noteworthy and important area are the risks posed by technology itself. These disorders, related to the formation of addictions, as well as other disorders of psychological nature, arise as a result of excessive or inappropriate use of modern technologies. They cause disorders in the social, or even bodily, functioning of an individual. When discussing dysfunctions related to the excessive use of information technologies, several types of addictions, which have been identified a long time ago, ought to be mentioned:

— IAD (Internet Addiction Disorder) – the formation of an internal compulsion to be online, which, in turn, makes the Internet become something necessary to live and function – infocholism,
— ASC (Alcohol Stupor Condition), caused by the intensive use of a computer, leading to states of consciousness physiologically and psychologically resembling alcohol or drug intoxication.

In recent years, research on a new form of addiction that is FOMO (Fear of Missing Out) has been conducted. This name was used for the first time by Dan Herman in the mid-1990s. He defined it as 'the fear of not using all the available possibilities and the simultaneous loss of the expected happiness, associated with the exhaustion of all these possibilities' (Jupowicz-Ginalska et al., 2018, p. 4).

Dan Herman also analysed the process of the appearance of FOMO and indicated the reasons for experiencing it, as well as other issues in social functioning associated with it. Dan Herman did not associate the phenomenon of the Fear of Missing Out exclusively with social media, but it was done by the world media. In light of media reports (mainly the press), social media were supposed to compound FOMO by attacking the

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[1] This definition of Internet etiquette complies with the ECDL – European Computer Driving License (Polskie Towarzystwo Informatyczne, 2006)

self-esteem and well-being of users of the Web. This thesis was verified by scholars Andrew K. Przybylski, Kou Murayama, Cody R. DeHaan and Valerie Gladwell (2013).

While analysing and presenting the phenomena conducive to the emergence of social exclusion related to the emerging information society, the issue of information stress is also worth mentioning. M. Ledzińska defines this concept as: 'a specific relationship between a person and the environment, assessed by the individual as a burden or a thing which exceeds the possibilities of handling it' (Ledzińska, 2001, p. 144). That is because in this case, 'the cause of stress lies in the excessive – in relation to the possibility of its processing – load of information, emitted constantly from various sources and transmitted at a significant speed' (Ledzińska, 2009, p. 84). It is worth focusing here on the diverse nature of the phenomenon of information stress itself, which, apart from its genesis, also includes the determinants of the phenomenon itself (Ledzińska, 2009, p. 89). The presented situations lead to various dysfunctions, which, in turn, disrupt the functioning of an individual so significantly, that he or she is not able to function properly and fully in society, e.g. they lose their job, have limited access to information or the ability to assess it properly.

All the indicated areas of new threats indicate that education is an important factor closely related to the phenomenon of exclusion, and its absence becomes the source of exclusion. 'Education sociologists – as Giddens emphasizes – 'often associate exclusion from the school environment with other phenomena, such as juvenile delinquency, poverty, lack of parental care and lack of interest in education' (Giddens, 2008b, p. 544). Limited access to new technologies, e.g. the Internet (but not only the Internet), or its complete absence, regardless of whether it is caused by economic factors or the psychological ones mentioned above, is the source of new areas associated with the risk of exclusion. It is worth adding that parental care in the network society mentioned by Giddens also concerns activity in the virtual world. Preparing parents educated and raised in the previous era for taking care of their children remains an open question (Czarkowski, 2009, 2016).

Lack of appropriate attitudes and competencies in the scope of using new technologies particularly affects adults whose educational biographies do not contain elements related to media or information education. People aged 45+ have not encountered modern technologies during their school educational experience or encountered them to a very limited extent. The lack of such an experience and competencies related to it is the reason for the lack of, or very limited access to, important social goods, and therefore it is also an area associated with the risk of social exclusion. That is why the emergence of new technologies and their enormous possibilities means not only new perspectives for andragogy understood as the education of adults or lifelong learning but also the development of and the need for various forms of counselling directed at this group of people.

The research published in *Diagnoza Społeczna 2007* (*Social Diagnosis 2007*) clearly confirms and perfectly illustrates the described phenomenon.

Table 3. Use of new media in age groups in %.

Age expressed in years	Does not use	Computer	Mobile phone	The Internet	Computer mobile phone	Computer mobile phone the Internet
16-24	2	1	11	3	10	73
25-34	5	1	23	1	12	58
35-44	14	2	29	3	9	43
45-59	30	2	31	4	6	27
60-64	49	2	33	2	2	12
65 or older	77	0	18	1	1	3

Source: *Diagnoza społeczna 2007*, quoted in: Batorski, 2009, p. 285.

The consequence of transformations in education and differences in the educational biographies of various generations is the creation of a new generation, called 'the net generation' by Don Tapscott. These transformations mainly concern younger generations, who grew up and were educated in an environment where

such technologies were common or had a prominent place, and were easily accessible in homes and schools. Lechosław Hojnacki emphasizes:

The specific features and universal presence of digital technologies, as well as the nature of today's culture and economy, shape a completely new generation, adapted to the requirements of the environment. Today's teenagers are the first generation that was born and shaped their abilities and perceptual habits in the environment of digital information technologies. Their learning style is different from that of previous generations (Hojnacki, 2006, p. 25).

Young people are good or very good at surfing the Web and understand its language (logic). Among their specific features that indicate the adaptation to a new social situation and education in the Web, it may be mentioned that:
— They treat new technologies creatively, trustingly.
— They are able to imagine and understand the virtual surface seen through the window of the screen moved over it.
— They successfully read from a small screen.
— They value the image and the sound more than the text.
— They prefer unrestricted (hypertext and hypermedia) access and parallel processing of information.
— They prefer short-term learning, multi-tasking and experimenting, and expect quick results.
— They are willing to discover all the functions of their devices, coming up with new applications for them.
— They treat their mobile devices as very personal items (Czarkowski, 2012, p. 44).

Marc Prensky gave this generation the name of *digital natives* (Prensky, 2001), these are people who are currently up to about forty years old.

The generation of people aged 45+, called non-mobile working people in the analysis of the Central Statistical Office, are people who were still educated in an age much less saturated with information and communication technologies, who are also usually less willing to initiate changes, acquire new competencies (in particular, the so-called novelties), have more trust in traditional and proven solutions and ways of acting. They are the opposite of digital natives and are referred to as *digital immigrants* (Prensky, 2001). They came 'from a country without computers and their brains were shaped at a time when social face-to-face interactions were the norm, and now they feel lost in the new digital world' (Paluchowski, 2009, p. 12).

These are people who are usually over forty-five years old, who grew up and were educated in a society without modern information technologies, did not come into contact with computers and the Internet over the course of their education, or came in contact with them to a very limited extent, while the basis of their education was formed by text, usually a printed one. Among the characteristic features of people from this generation, the following may be mentioned:
— Lack of trust in new technologies.
— Poor understanding of the message shown on the virtual surface visible through the window of the screen and poor navigation within it.
— Good understanding and interpretation of the contents of a long, linear text, e.g. one read from a book.
— Valuing the text more than the image and the sound, because they understand it better.
— Preference for serial information processing and linear thinking.
— The use of basic, standard functions of their mobile devices, analogous to traditional ones.

These features have a significant impact on human functioning in the real world in which they have been shaped, but they often determine the functioning and education in a virtual reality, using the network and undertaking (or not undertaking) activities in the network society to a significant extent. Research in this area on the Polish population was conducted by Katarzyna Kanp-Dam (2009). Of the 100 adults surveyed, employees of a computerized institution, over 76 people said that their difficulties with learning stemmed from the fact that they were never good at sciences and technical subjects. Meanwhile, 68 people said that the reason was that they were never taught computer science or how to use a computer. At the same time, there was a significant correlation between the age of the respondents and the degree of their perceived difficulties with learning information technologies. The research confirmed the thesis that there is a significant correlation between the age of the respondents and the degree of their perceived difficulties with learning information technologies (Knap-Dam, 2009, p. 96).

The situation of deficiencies in the knowledge and skills with regard to the use of modern information and communication technologies has a significant impact on the number of opportunities and forms of human activity, starting with professional activities, self-fulfilment, including the pursuit of interests, to taking advantage of one's civil rights.

3. Final comments

The described problems with technological progress indicate the need to take appropriate remedial actions. Adult education is considered to be a unique characteristic of the 20th century. Currently, at the beginning of the 21st century, appropriate work with an adult becomes not only a unique phenomenon but also a necessity (Czarkowski, 2015). Education in which an appropriate role is attributed to the education and improvement of adults and seniors is not only pedagogical in its dimension but also bears the hallmarks of important social work activities related to preventing the exclusion of these age groups. In particular, this applies to adults aged 45+ and seniors who, as a social group, for many reasons, not only biographical and educational ones, are a group that is particularly at risk of exclusion by an information society saturated with technology. Good and easily accessible education for this group of people, in which both the organizational forms and content will be properly matched to the needs of adults aged 45+ and seniors, allowing them to live a dignified and fulfilled life, is not only a condition for progress, but also a factor necessary to solve many current and future problems that progress creates. The key here is to not only transfer the relevant information or skills, the determining factor is to shape the appropriate attitudes combining openness to change with a rational approach to the products of technology as digital tools. Such an approach rationally distributes the burden of actions between the process of teaching and learning, as well as the process of raising an adult. At the same time, this approach expands the scope of practical activities and, simultaneously, theoretical and empirical research in relation to counteracting the technological exclusion of people aged 45+.

Problems posed by modernity, including those related to information technology, should be anticipated and their emergence prevented, if possible. A society based on knowledge means new areas posing the danger of social exclusion and thus new areas of social work, as well as education aimed at caring and raising, in reference to an adult. Since technology has been developing increasingly more dynamically, and societies are gradually getting increasingly older and there is no basis for the expectation of changes in these sustainable trends, properly handling this experience and appropriately coping with problems posed by technological progress in relation to people aged 45+ seems to be the key to further humanity and social life.

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