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USING ICT IN SOCIAL WORK FOCUSED ON E-EXCLUSION
GROUPS

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Abstract

ICT makes life easier for people but it also has many pitfalls. One of them is the so-called e-exclusion (the gap between the people to whom ICT is available and to whom it is not). The aim of this study is to understand and described the mechanisms of the use of ICT in social work with two target group in the context of exclusion threats. The main research question is as follows: How ICT permeates social work focused on groups of people at high risk of e-exclusion, i.e. (1) the endangered children and their families, and (2) the elderly persons dependent on the help of others living in a natural social environment. Based on the findings of our own research, we have dealt with the field of ICT use in social work focused on two target groups endangered most by the high level of e-exclusion (due to inaccessibility of ICT, or disposition of with it). The research is based on individual and group interviews with social workers, interviews with elderly persons using social services and questionnaires surveys among adult target group. When using ICT in social work, social workers often come across ethical dilemmas. Given the absence of a framework document (standard) regulating the use of ICT in the Czech Republic, they barely cope with those dilemmas. At the same time, they see the use of ICT in target groups as an essential means of preventing e-exclusion.

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1. Introduction

Social work in the 21st century has been developing within a wider socio-cultural, political-legislative and economic environment. It is influenced by a number of processes that take place at both the national and international levels. From the macro level point of view, one of these processes is the so-called informatization, which is generally a transition from a production-oriented economy to a knowledge-based economy, i.e. an economic system based on efficient use and transfer of knowledge and information (ČESKO, 2004). In this context, we are talking about an information society whose driving force and main source is the production of information values (Vymětal, 2010; Weber, Zink in Korunka, Hoonakker, 2014).

New forms of literacy, i.e. **information literacy** and **digital literacy**, are emerging in response to the computerization process. **Information literacy** can be defined as the ability to identify and specify the need for information in a problem situation; to find, obtain, assess and use information appropriately, taking into account its nature and content; to process information and use it to illustrate (model) the problem; to use appropriate work methods (algorithms) to solve problems effectively; to cooperate effectively with others in the process of obtaining and processing information; to present and share the information and results of the work in an appropriate way; to observe ethical rules, safety principles and legal standards at work, all this while using the potential of digital technologies in order to achieve personal, social and educational goals (ČŠI, 2015). Information literacy is considered an important condition for the development of society, its economy, culture and prosperity in general (ČESKO, 2004). In the information society, this is a necessary foundation needed for the well-being of each individual (ČŠI, 2015). Its importance is gaining in importance as the volume of information increases. The cognitive abilities of a person are limited, so they must select the information that is needed for them (Cejpek, 2008). Information literacy is hierarchically superior to **digital literacy**. Digital literacy is exclusively related to ICT (its development therefore depends on physical access to ICT) being a set of competences necessary to identify, understand, interpret, create, communicate and use safely digital technologies in order to maintain or improve their quality of life and the quality of life of their environment. (MLSA, 2015). According to the Ministry of Labor and Social Affairs (MLSA, 2015), three dimensions of digital literacy can be distinguished (see Figure 01).

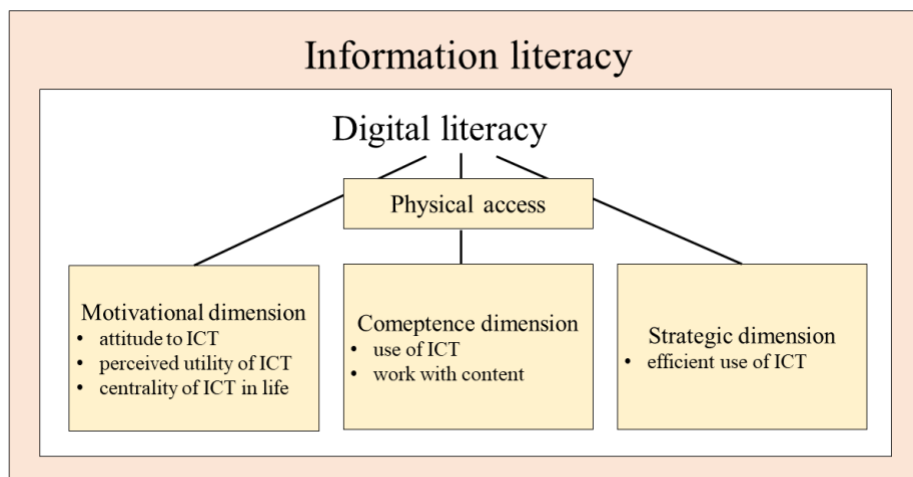


Figure 01. Information and digital literacy

Information and digital literacy can be considered one of the basic prerequisites for the successful inclusion of an individual in society and as a prerequisite for a number of professions (Mühlpachr, 2004), including social work. In connection with this, various arguments appear that access to the Internet is a human right as it is necessary for full participation in society (see, e.g. Perron, Taylor, Glass, & Margerum-Leys (2010).

2. Problem Statement

The absence of digital literacy or access to ICT is termed by us **digital exclusion** (abbreviated as e-exclusion), as described in general by van Dijk (2005), among others. Vondrová (2014) states that this is a specific form of social exclusion where people do not have the skills, abilities and material resources needed to effectively access and use technologies in their daily lives. This is a growing problem at a time when technology is penetrating more and more the activities and processes of individuals' lives. According to Watling (2012), digital exclusion is currently quite common and concerns mainly the category of socially disadvantaged and marginalized people. Logically, it also includes socially disadvantaged families with children and seniors. Elswick (2017) states that for some clients, ICT may be unavailable mainly due to finance - they may be financially unavailable for them. Conversely, some of them may not consider ICT as a normal part of everyday life, so they may intentionally avoid using it. Although it is possible to routinely use ICT in publicly accessible places (e.g. libraries), these places may be barriers to clients (e.g. because of distance from the place of residence, or stigmatization). Low digital literacy can also create barriers to the use of ICT.

According to Vondrová (2014), in the area of digital exclusion there arises room for social work, i.e. for its interventions where there are imbalances between expectations and environmental requirements and people's ability to meet these expectations. As Steyaert and Gould (2009) point out, digital exclusion cannot be separated from more general patterns of social exclusion, as they reinforce each other. This may result in persons' reduction in labor market participation, education, social and public life (MLSA, 2015). Social workers, who are the first ones to deal with problems associated with an unequal distribution of resources, may thus feel the need to address the access of clients to ICT (Watling, 2012) - the so-called **digital inclusion** (in short e-inclusion). ICT can then be both a source of exclusion and inclusion (MLSA, 2015).

Although we associate digital exclusion with clients in particular, social workers can also struggle with their own low digital literacy. The digital literacy of social workers may vary in particular depending on their age. Generational differences may arise between new young practitioners, who usually have sufficient digital literacy and are able to use it and adapt to alternative technologies when working with clients, and social workers who were used to typewriting and did not use personal computers (Csiernik, Furze, Dromgole, & Rishchynski (2006). The first group can be described as "digital natives" (Prensky, 2001), which includes individuals born after 1980 (Palfrey & Gasser, 2008). The second group can then be labelled "digital immigrants" (Prensky, 2001). The digital natives may have an advantage over the second category, as they have been growing up with technology practically since their childhood.

2.1. Social work in the context of Czech state information policy

Within the political-legislative setting of society it is appropriate to look at social work within the context of the Czech state information policy. Since the beginning of its development, strategic documents have included issues concerning the development of digital literacy of the population as a prerequisite for its functioning in the information society. If this condition is not fulfilled, there is a risk of not being able to participate in digitized areas of society, such as e-government), e-health system, or e-learning. Such persons thus find themselves in a situation where they cannot fully participate in events in society and acquire the necessary (not only informational) resources for themselves. Such persons are digitally excluded due to the lack of digital literacy or access to ICT, which may reinforce any other dimension of their social exclusion. It follows from the above that the issue of e-exclusion / e-inclusion is becoming an integral part of social work aimed at including such persons in society.

As is evident from the strategic documents of the Czech government, increasing digital literacy of the population was already one of the priority areas of the concept of the *State Information Policy - the Road to the Information Society* - from 1999, which was supposed to be implemented at schools of all levels and types (VLÁDA ČR, 2009–2019), especially with the help of introducing ICT. ICT education was followed by other documents, with the current *Strategy of Digital Literacy of the Czech Republic 2015-2020* (hereinafter referred to as the “Strategy”), which seeks to support citizens in adapting to ongoing technological changes in society so that they are ready to use ICT in their lifelong personal development, improving the quality of life and social application. According to the *Strategy*, digital inclusion is becoming one of the factors of social inclusion in all important areas of life (such as education, work or social life). For this reason, six strategic objectives are proposed, focusing on: (1) employment, (2) competitiveness, (3) social inclusion, (4) family support, (5) public sector e-services, and (6) supporting the system of education and learning through digital technologies (MLSA, 2015). Hereinafter, we will focus more closely on the strategic objectives (3) and (4) that are relevant to our topic.

The strategic objective (3) - social inclusion - aims primarily at individuals at risk of social exclusion, where increasing digital literacy is seen as part of the process of social inclusion. The key to overcoming digital exclusion is motivation, parallel tackling the root causes of social exclusion, developing the ability to create online support networks outside the subculture, and developing strategic skills. As stated in the *Strategy*, the digitally excluded group usually includes seniors, but it is also made up of parents of children, where generation transfer can be expected. Six measures should lead to social inclusion: (a) providing economic tools to promote the physical access of people with low social status to digital technologies; (b) promoting the availability of digital centers in the individuals' places of living; (c) identifying individuals or groups of people digitally excluded or digitally illiterate; (d) targeted information and motivation campaigns tailored to the characteristics of persons or groups of digitally excluded or illiterate people; (e) promoting the introduction and use of community-based electronic services tailored to people with low digital literacy; (f) Implementing digital education in socially relevant educational courses. Social service providers are to be involved in most of these activities, for example in the form of information campaigns targeting the digitally excluded, analyzing the digitally excluded, or supporting the creation of digital centers in locations at risk of social exclusion (MLSA, 2015).

Looking at the strategic objective (4) - family support - according to the ICT Strategy, it affects both family dynamics and family-society relations. In terms of family relationships, the development of digital literacy should therefore be part of parental responsibility; from the point of view of family and society relations, cooperation of school, family, and leisure time institutions, is crucial in relation to the child. The development of digital literacy should aim at promoting opportunities and eliminate risks, communicating with each other and strengthening the participation of all parties involved in raising children. Consequently, the measures involved in the strategic objective are: (a) raising parents' and grandparents' awareness of effective mediation strategies (it concerns managing the relationship between children and ICT to maximize benefits and minimize negative impacts); (b) established intergenerational and community learning programs to improve the availability of digital education; (c) providing affordable advice service on security and opportunities, including on-line advice service; (d) promoting the introduction and use of digital technologies to enhance cooperation and open, two-way communication between family, school and leisure time institutions; (e) enhancing the digital literacy of the staff of leisure time institutions (MLSA, 2015). Particularly for the first three measures, close involvement of social work organizations is desirable. Social workers can carry out the measures, for example by the consulting, by organizing courses / workshops / seminars, or by supporting parents in accessing the e-communication with schools, health facilities and authorities.

3. Research Questions

The main research question is as follows: How ICT permeates social work focused on groups of people at high risk of e-exclusion, i.e. (1) **the endangered children and their families**, and (2) **the seniors dependent on the help of others living in a natural social environment**.

In two selected target groups we specified partial research questions:

(1) What do the social workers working in the area of social and legal protection of children say to the use of ICT in their interventions, with an emphasis on digital exclusion of clients?

(2a) What are the specific needs of seniors using care services in relation to their access to SMART technologies?

(2b) What are the views of the relevant parties (seniors, workers of state, local and regional authorities, social services, and academics educating social workers) on selected SMART technologies that could meet the identified “unmet” needs of seniors?

4. Purpose of the Study

The aim of this study was to understand the mechanisms of the use of ICT in social work with a focus on digital exclusion dealing with the target group (1) of vulnerable children and their families, and (2) the elderly persons dependent on the help of others living in a natural social environment.

5. Research Methods

(1) A qualitative research strategy, and, for the time being, a less frequently used situation analysis has been chosen to investigate the situation of **the first target group** (Clarke, 2005; Clarke, Friese,

& Washburn, 2015; Kalenda, 2016). The research focused on social workers dealing with the target group of children at risk and their families meeting the following criteria: (1) qualification prerequisites for the performance of the profession of social worker pursuant to Section 110 of Act No. 108/2006 Coll. (Zákon, 2006) (hereinafter referred to as “Act”); (2) at least one year's experience in direct work with vulnerable children and their families; (3) territorial specification (being from a specific regions of the Czech Republic). Since we are limited by the total number of informants, and there is a strong reduction in the monitored individuals (Disman, 2011), we decided to examine in detail two parties involved in the system of care for vulnerable children and their families. These are: (1) Department of Social and Legal Protection of Children in Municipalities with Extended Competence (SLP); (2) social activation services for families with children (SAS). The parties involved in the delegated powers of the state administration and operating within the framework of NGOs were selected deliberately. The assumption was that the different positions of the chosen groups could bring different perspectives. Altogether, 37 social workers were included in the research, of which there were 14 SAS and 23 SLP workers. 32 informants were women, 5 informants were men. A combination of deliberate (purposeful) selection through institutions and the snowball technique was used to select the research set. The technique of individual and group semi-structured interviews was chosen to collect information. The following interview topics were defined: (1) ways of using ICT when dealing with clients; (2) the importance of ICT in the communication between the social worker and the client; (3) the importance of ICT in shaping the relationship between the social worker and the client. The semi-structured interviews were conducted between August 2016 and February 2018, being recorded with the consent of the informants. The average length of the interview was 44 minutes. The areas of e-exclusion / e-inclusion emerged as one of the important but partial topics of the interviews. As to the ethical principles of research, the principle of voluntary participation and the principle of anonymity were applied.

(2) Combined research was used to investigate **the second target group**. In the qualitative part we applied elements of the grounded theory (Straus & Corbin, 1999). The object of the research was seniors using a nursing service that supports their staying in a natural social environment (to Section 40 of Act). The data collection technique was semi-structured interviews focusing on (1) the care services provided and (2) the needs of the elderly. The criteria for the selection of communication partners were: (1) the socio-economic status of an old-age pensioner and (2) the use of nursing services in their natural environment. Out of 5 interviews conducted, we identified, based on open coding, the “unsecured” needs of these seniors. Through a systematic study of relevant scientific literature, we were then trying to find out whether there are SMART technologies that could meet the “unsecured” needs of seniors and thus support their staying in their natural social environment as long as possible. In order to find out the opinions of experts and the parties involved themselves (seniors) on the use of SMART technologies in meeting the needs of the target group, we conducted a questionnaire survey among participants of the first professional conference SENIOR 2019, held on March 14, 2019 in Ostrava. The conference was attended by a total of 128 people from the Moravian-Silesian Region. These were workers from the state sphere, local government and social services (70%); seniors (26%) and academics (4%). The return rate of the questionnaires was 60% (78 questionnaires were filled in out of the total number of 128).

6. Findings

6.1. The target group of children at risk and their families

A total of 70 elements were abstracted from the obtained material, which indicated the key phenomena related to the examined situation. Individual elements were categorized, according to similarity, into 13 key components, thus creating an ordered map. This map showed that ICT serves social workers (among other things) as a tool to support e-inclusion of clients, whether consciously or unintentionally. In recent years, informants have been experiencing this topic with increasing intensity. We also present partial research results related to the topics of e-exclusion / e-inclusion. These appeared in the interview rather tacitly, i.e., they were not explicitly mentioned but their presence in the situation was obvious.

Informants (social workers) identified four problematic areas in the area of digital exclusion of clients:

1. lack of electricity;
2. lack of ICT (especially PCs, mobile phones / smartphones);
3. Inability to master ICT (technically);
4. inability to use ICT to search, sort and evaluate information, and to communicate or create one's own content.

Looking at the first two points, some informants reported two contradictory situations as for the physical availability of ICT for clients: "There are two extremes where we, clients, are surprised that there is no money for the basic food, and they simply have internet in their phones and go, and they are connected to Facebook, having other conveniences, too. And then the extreme, where there are areas like Osoblažsko Region, where there are numerous migrant Roma people, when somewhere in the Ostrava region a dormitory is cancelled [...] and there is really no connection due to lack of finance, or there is actually none in some places. Unless somebody makes an antenna and downloads it for others. And there may be requirements for electronic students' books or some other things [...]" (G / 18). On the one hand, social workers are faced with a complete absence of electricity or ICT, and on the other, they find out that many clients, especially children, use mobile phones / smartphones with internet connections. Compared to previous years, social workers have seen an increase in access to ICT in their clients, even if they come from a socially disadvantaged environment. However, this also has its drawbacks: "[...] I did not have to deal with any telephone numbers at all in the past [...] when dealing with someone interested or when contacting a client. But today, almost every client has a phone, even if not all the time, because they might give it for a while to the pawn shop, or they lose it or their SIM is blocked. So, they don't have phones all the time, but it's a big phenomenon that I never faced at all in the past" (A / 30). In this context, it should be noted that PCs are owned by a minimum of clients.

As to the third and fourth points, we are talking about digital literacy of clients. The physical availability of ICT does not automatically imply this. Digital literacy is low in most clients, they use ICT to access social networks (typically Facebook), play video clips, and play games. Digital exclusion then brings difficulties for clients of social work connected with possible socio-pathological phenomena and with the expectations of a society that considers digital literacy a social norm. As the social workers interviewed state: "Everyone has it, everyone knows. [...] It is very important now, in fact one cannot do without it..." (C / 18); "[...] We cannot avoid it; society requires that children know how to control these

things” (H / 58); “Technologies are here and they are expected to be used immediately, you have the number, you have the email, so write a message” (T / 372). At least the basic digital literacy is expected by various collective participants (government, self-government, school and health care facilities, other legal entities), which is reflected in their daily activities (e.g. contacts and addresses of authorities, e-orders to doctors, news sharing). Thus, in the case of digital exclusion, people do not have access to the information resources that are common for social functioning: “[...] today you will no longer find the office address or ID, or doctor, or similar things” (D / 11). As several informants point out, “clients cannot even find the information they need” (B / 6).

As to the access to information sources, informants expressed their opinion most on school facilities. The first difficulty is that more and more schools are using an electronic pupils' books to register their grades, evaluate their children verbally and communicate with their parents. These are a barrier for parents from socially disadvantaged backgrounds: “[...] they have quite a problem with that, because there are quite a lot of parents who do not look at the pupils' books because they simply are not able to. Then we do it by looking at it here, showing it to them, and then trying it over a cell phone. But again, quite often, the parents don't know what grades their kids have, because they can't get into the system. And sometimes there is shame, they are ashamed to tell you, so sometimes they come up with it and then it is not enough to wonder” (F / 231). Some informants said that teachers were willing to help the parents introducing conventional pupils' books if they became aware of this need. Other difficulties are associated with assigning tasks that require access to PC / Internet: “[...] a lot of teachers at school assign tasks in the following style - search the internet, write a paper and the like - and those children are lost, because they will not go to the library neither will search in books. And I find it strange, and this is an endless debate with teachers about marking such assignments when not everyone has these options, but teachers consider it a standard. It may be true that in these schools, children have access to it, but which child wants to stay there after school and to seek something there in their leisure time” (I / 175).

Some social workers have said that ICT is a part of today's consumer society, that it is a consumer product that is constantly developing and becoming of superior quality. The socio-technological development also brings pressure for some clients connected with their social status. For children, ICT is becoming a simple way to increase it. This tendency is often strongly encouraged by peer groups of children, which sometimes results in a strong pressure on parents of vulnerable children who wish to have the latest ICT. Parents sometimes give in to these pressures instead of buying other things (e.g. food), or they run into debt. “[...] Over time, bullying, or ridiculing, is becoming more common among socially disadvantaged clients, children, that they do not have a particular phone, tablet or computer. In the classroom or in a team, children can be very cruel to one another. And they subconsciously raise their social status with having a phone, the latest one, etc. And the children are attacking their parents. I have a group of boys in my family who blame their mother for not having a phone, or this or that. She tries to buy other things for them. When she bought them a second-hand one to share it, there was a fire on the roof. Then somehow she got lucky so they had their own phones [...] they had them for two months but something went wrong, because they got into some [...] they gave them to a gang, got robbed or there were some conflicts all the time. This is so unfortunate in collectives.” (I / 171). As another informant adds: “The time is consumer-wise, and when clients want to become part of the majority, this is the easiest way for them to

actually become part of the majority, to be just like the others. Just to be consumers as everyone else. And they do not have that knowledge or that they do not know that the cell phone is not important and they won't pass it on to their children, either. And they say, 'Well, I will give it to him when he wants h it so badly', but there are much more essential things that the child needs" (K / 172).

6.2. The target group of seniors

The results of the research focused on the activities and needs of the seniors show that they consider some of those needs not to be "secured" (see Table 01). At the same time, it was found out that these "unsecured" needs of seniors are not met by other formal or informal aid systems. Therefore, we were looking for SMART technologies that could meet the identified needs of the seniors. Through a systematic study of expert literature, we have identified the possibilities presented in Table 01.

Table 01. "Unsecured" needs of seniors and suggestions of SMART technologies

"Unsecured" needs of seniors	SMART technologies that can meet the needs of seniors
Sufficient contact with the social environment	Use of ICT for online communication
Availability of information in difficult situations	"Information WEBSITE" for seniors, which will provide them with available information in difficult situations
Mobility and transport in the city	"SMART BUSES" providing the transport of seniors with assistance and safety features
Home security	"SMART WALKING STICK" facilitating the movement of seniors
Social and intergenerational relations	TELEPHONE BEFRIENDING SERVICES" telephone volunteering service that facilitates contact between seniors and volunteers

Source: compiled by the authors

Our research shows that the nursing service has certain limits in meeting the needs of seniors, mainly due to insufficient capacity of workers and the range of services offered. Our findings correspond to the findings of Kubalčíková and Havlíková (2016), according to which the availability of care for seniors in the natural environment decreases despite the increasing number of seniors in the population and the political preference of deinstitutionalization. Mošová, Pulkertová and Chytil (2018) also draw attention to the problem of the availability of social services, posing a question in their research whether social services are financially, locally and timewise available for seniors. The results of their research show that the services are financially unavailable, because they are too expensive according to the answers of seniors. The results also show that the local and time availability of social services for the elderly is insufficient. According to Kubalčíková (2012), care services cannot be seen as a full-fledged alternative to institutional care, especially when it comes to providing care to seniors with reduced self-sufficiency who are dependent on the care of another person.

In accordance with Příbyl (2015), we believe that the goal of care for seniors is to be able to identify their needs and provide them with assistance in such a way that these needs are saturated in a satisfactory way, preferably in their natural social environment. As results of the research of Vávrová (2015) show, seniors themselves consider the use of residential social services the most extreme solution in a difficult life situation. In view of the above mentioned, we conducted a questionnaire survey among the participants

the aim of which was to find out their views on the identified SMART technologies. The results of the survey showed that most respondents (74) agree or rather agree that seniors should live as long as possible in their natural environment. Only 4 respondents stated that they did not have a strong opinion, adding that there were barriers to providing sufficient help to seniors wishing to age at home. One respondent commented: “It is obviously better for the elderly to stay in their natural environment, but for most it is impossible because they have no one to look after them (they have no one). If they have a family, the problem is that they are at work, or are not interested in looking after the elderly” (R33). The results also showed that the majority of respondents (62) consider SMART technologies to be beneficial in meeting the needs of seniors, commenting: “SMART technologies can be beneficial, but only if the seniors are willing to learn new things” (R18); “These technologies must be understandable and simple for them” (R29). These comments also show that respondents consider SMART technologies (ICT, AS) difficult to use by seniors. This is also reflected in Vacek and Rybenská (2014).

Based on the identified SMART technologies, the survey showed that 55 respondents consider the information WEBSITE to be very or rather beneficial. While some respondents considered the Information WEBSITE to be beneficial, some raised concerns that seniors are faced with a technology barrier that will prevent it from being used: “Currently, many seniors do not manage to work with a computer or tablet.” (R35). 55 respondents consider Smart Bus, which can respond to the need for mobility and transport in the city, very or rather beneficial. According to one of the respondents, “traveling is really difficult for seniors, they cannot reach the bus by themselves and the senior taxi is busy” (R4). 71 respondents were positive about safety in the home environment using the Smart Walking Stick. One respondent stated that “it would be good if someone showed the use of these aids to seniors and gave them an opportunity to try these aids without obligation” (R63). 71 respondents consider SMART technology using Telephone Befriending Services to secure social and intergenerational relationships to be very and rather beneficial. According to one respondent, the problem of seniors is that they “often feel lonely and at the same time fear to let a stranger come into their home” (R4). The issue of safety is also addressed in the study by Kwon (2013), in which the author draws attention to the need to create a system to support seniors who live alone or with their spouse or partner in dealing with risky situations. It is mainly the use of a system supporting the safety of seniors, i.e. using information technology.

The results of the questionnaire survey show that the participants of the conference consider SMART technologies suitable for meeting the needs of seniors and an opportunity to support “aging in the natural social environment”. Jansová (in Havlíková, 2015) also gives a partial view on seniors' attitudes to the use of SMART technologies. According to her, most seniors would prefer a “human” nurse to a robotic or electronic one, or they would choose a combination (daytime nurse, ICT monitoring at night).

7. Conclusion

ICT includes all technologies for communication and work with information used in social work with our target groups.

The benefits and pitfalls of their use in social work with the target group of children at risk and their families in the Czech environment were dealt with in detail by Recmanová and Vávrová (2018). In the following summary, we will focus exclusively on the risk areas related to e-exclusion. As to the target group

of vulnerable children and families, many social workers fear whether their clients will be able to keep up with society due to socio-technological developments, and they fear of deepening of their clients' social exclusion: “[...] I think these people will not be able to function in society at all, because I myself sometimes wonder when I go somewhere in town once in a while whether I will be able to buy a tram ticket, because I will not understand this machine [...] one is not used to that and does not keep pace with the society, so then he only has to stay at home and somehow function there at least” (H/64). This fear of low digital literacy and, consequently, low information literacy among vulnerable children and their families has often been addressed by social workers. This high-risk social group should not be neglected when implementing various measures in connection with the above mentioned and within the framework of all the objectives of the Czech state information policy. As we have emphasized several times, e-exclusion is a component of a wider social exclusion in the current information society, multiplying it.

In the area of social work with the target group of seniors, ICT for the elderly together with assistive (adaptive) technologies (AS), which we understand as SMART technologies, focus on three main areas of services: social care, health care and housing (Havlíková, 2015). According to Lábus (2006), the use of information and communication technologies not only supports the staying of seniors in their natural environment, but above all it enables the use of integrated social health care in the home environment. Lábus also notes that current telecommunications and computer systems allow discrete forms of monitoring the state of users of these services and, in case of an urgent need, also socio-health service providers' access to the seniors' apartments. By ensuring a sufficient network of service providers and service points, such means can ensure an individual standard of care comparable to that provided by residential care services. Foreign research shows that SMART technologies (ICT, AS) are a very important source of social and health support for seniors and provide them with the opportunity to remain in their natural environment (Hoenig, Taylor, & Sloan, 2003; Bradley & Poppen, 2003; Morris, et al., 2012; Morris, et al., 2013). Their use in social work with seniors thus significantly contributes to the prevention of social exclusion and institutionalization in residential social services. With the demographic development we can expect an increase in the number of people in the future who will need a certain form of assistance (see Horecký, 2009), when it will be necessary to look for an optimal way of meeting social needs of seniors in both economic and technological terms (MLSA, 2009).

In connection with the above-mentioned facts, we can state that in future the demands of digital literacy will continue to increase, both for social workers and for the users of social services and clients of social work, or other people who are part of social support networks. This fact has already been taken into consideration by the National Association of Social Workers in its strategic document *Standards for Technology in Social Work Practice* (NASW, 2017).

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