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RESEARCH ARTICLE

A qualitative study on skills of elders to use digital technology products from digital divide perspective

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ABSTRACT

It can be said that the internet use and social media use and accessibility are much more important for youth and play a key role in participating in online social life. It is observed that the individuals, who are 60 years old and over, are more "deliberate", "shy" and "cautious" than youth in this matter. In this study, the place of technology in their lives, usage methods and purposes, appropriate-efficient use of technology and the technical and generational problems faced in use of technology were considered in the interviews made with total 23 individuals who are 60 and above. It was concluded that they took place in a new socialization process through social media tools and use of technological products which they considered as part of the "necessities of the time" and "holding onto life". It is also observed that individuals are subjected to a particular age categorization in terms of technology. This classification includes a definition which limits the type of product/technology and the use and purpose of that product/technology. It is tried to comment which social media applications are used by 60 and above individuals through products such as mobile phone, tablet, computer, etc. the purposes of use of such applications, the need for help in use of technological products and their experiences in problem solving of the participants according to their opinions in terms of self-interpretation in the scope of this research.

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Dijital bölünme perspektifinden yaşlıların dijital teknoloji ürünlerini kullanma becerilerine ilişkin nitel bir çalışma

ÖZET

İnternet ve sosyal medya kullanımı ve ulaşılabilir olma durumunun gençlerde daha önemli ve online sosyal hayata katılma noktasında kilit bir rol oynadığı söylenebilir. 60 yaş ve üstü bireylerin ise bu konuda gençlere kıyasla daha "temkinli", "çekingen" ve "ihtiyatlı" oldukları gözlemlenmektedir. Bu çalışmada 60 yaş ve üstü bireylerle yapmış olduğumuz araştırma kapsamında teknolojinin hayatlarındaki yeri, kullanım yöntem ve amaçları, doğru-verimli kullanımı ve bu esnada karşılaşılan teknik ve kuşaksal sorunlar üzerinde durulmuştur. "Çağın gerekliliği" ve "hayata tutunma" bağlamında değerlendirdikleri teknolojik ürünleri kullanma ve sosyal medya hesapları aracılığıyla aslında "sanal" sosyalleşmenin içerisinde yer aldıkları düşüncesine ulaşılmıştır. Teknoloji denildiğinde bireylerin belli bir yaş kategorizasyonuna tabi tutuldukları gözlemlenmektedir. Bu sınıflandırma hangi ürünün/teknolojinin hangi amaçla ve nasıl kullanılması gerektiğini sınırlandıran bir tanım içermektedir. Araştırmamız kapsamında katılımcıların kendi anlamlandırmaları bakımından, orta yaş ve üstü bireylerin teknoloji kullanımına dair fikirlerinden yola çıkarak cep telefonu, tablet, bilgisayar gibi ürünler aracılığıyla hangi sosyal medya uygulamalarını kullanmayı tercih ettikleri, bu uygulamaları hangi amaçlarla kullandıkları, teknolojik ürünlerin kullanımında yardım alma ihtiyacı hissedip hissetmedikleri ve problem çözme durumunda üstesinden nasıl geldiklerine ilişkin deneyimlerini anlamaya ve yorumlanmaya çalışılmıştır.

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1. INTRODUCTION

Being engaged with agriculture and farming in Neolithic period started with the passage from hunter and collector period, defined as nomadic life, to permanent settlement had been lasted for centuries. Significant changes had been experienced in social life as a result of transformations in economic life, science and technology fields and getting to know new cultures since the beginning of 15th and 16th centuries and industrial era had begun through the manufacture of raw materials during the 17th century. Human being had evolved from tool making nature defined as "Homo faber" to thinking and acting existence defined as "Homo sapiens sapiens" centuries ago in terms of anthropological.

Today, the period which is conceptualized as advanced industrial society, refer to four different processes in itself. Robotics and artificial intelligence applications have moved human beings from digital native position to Homo sapiens digital or digital wisdom position at the social level described as "Industry 4.0" or "Society 4.0". Four main stages in industry itself may be ordered as followings; mechanization in the 18th century (Industry 1.0), electric industries in the 19th century (Industry 2.0), automatization in 20th century (Industry 3.0) and Internet in 21st century (Industry 4.0). The last one, which is the period evolved from industry society to information society, is defined as Industry 4.0. This stage, as different from the previous ones, suggests the connection of all parts composing internet technology in such a way as to activate synchronize all those parts and association all these fields through interaction with each other (Ertuğrul & Deniz, 2018; Görgün-Baran, 2019).

Information and Communication Technology (ICT) is the clearest example of this liquidity. Although developments, in one hand, cause to expectations in conflict of generations, but also cause to social inequalities called as digital divide on the other hand.

In this context, the effect of computer and internet technology, defined as Industry 4.0 and used to build the future, on elders is the subject matter of the research by questioning how people aged 60 and over use digital technology in the study. These Technologies, having an important role in the lives of individuals, increasingly and direct affect the social life. Thus, this study is based on the "Should we call people aged 60 and over as digital immigrant or have they already gone beyond being digital immigrants?' questions due to the digital technology use of people aged 60 and over in Ankara province.

2. METHOD

Although this study was inspired and developed from the study of Colombo, Aroldi & Carlo (2018) on "Italian Grandmothers", the male elders were also included in this study. A qualitative study was conducted by means of techno-biography in order to find out the subjective experiences in digital technology use of participants in the research. Techno-biography is a research method including the acquaintance of elders with technology, possessing such technology and the people from which they learn using such technology (Colombo, Aroldi & Carlo, 2018). Digital technology use and interpretation of people aged 60 and over are examined according to the interpretive/constructivism approach by emphasizing the importance of experience and interpretation of subject in the research. The aim of the research is to reveal how and from whom the elders learn such technology, that was not available when they were young and adult, the frequency and purpose of use of such technology, what they do with these tools, the problems in usage, digital divide experiences of elders and transformation of elders from being digital immigrant into digital wisdom of elders. To that end, the interviews were made with 23 participants aged 60 and over who knew to use computer, internet and social media. The interviews lasted about 45 minutes and data was collected by using semi-structured questions. The sound recording was used for data collection but notes were taken for elders who refused sound recording. Then, the collected data was deciphered in computer environment. The analyses were manual conducted by reasoning (Colombo, Aroldi & Carlo, 2020: 203) and analyses themes were established and then interpreted. The names of the participants remained anonymous and their quotations in the text were numbered in order to state their gender and ages.

This research is a sociological study. The limitations of the study are that the participants include individuals over the age of 60 who use the internet and computers and reside in the central districts of Ankara. The interviews with the participants had started in October 2019 and ended in March 2020. The research was initiated before the ethics committee approval was required. Interviews with half of the participants were completed during the period when the ethics committee approval was made mandatory. In order to prevent an ethical violation arising from this process, the ethics committee permission was not obtained.

2.1. Conceptual Framework: Digital Divide

The conceptual framework of the study is consisted of network society concept of Bell, Castells, van Dijk and digital divide concept of Robinson, Selwyn, van Deursen, Olphert & Damodaran, van Dijk & Hacker and digital native, digital immigrant, digital human or digital wisdom concepts of Prensky.

The acceleration of computer communication and direction to an information society, in addition to the broadcast satellite and submarine cable casting, are most significant feature of the society of today called by Bell (1997) as the Post-Industrial Information Society. Rather than industrialization, the service sector has gained qualification and the qualification of information has also increased in such society. Bell suggests that the scientific and technological advancements and economics and politics will intertwine by this way and consequently a new social stage will be experienced as a result of reflection of such intertwining to social life. Likewise, Bell has been justified. Computer communication has spread out all fields of society from economics to health, education and politics. The research and discussion of all problems at scientific level under hegemony of huge

research institutions increase the position and importance of scholars; however, it also states that they will have a significant place in social stratification system. In the beginning of 1970s, Castells (2008) had mentioned about a network society and emphasized that it was inevitable that economic, political and social relationships would be kept online by means of world-embracing and connecting structure of internet. Castells also makes distinction between urban and rural areas in digital divide and calls attention to the differences in acquaintance and use of ICT by the poor living in the ghettos of the same city. Likewise, van Dijk (2016) defines network society as the digital society and points out that a new digital culture is emerged by means of benefits of internet. Beck (2000) suggests that as a result of completion of infrastructure of such culture network, the individual who surfs in digital networks will not have a distance problem and any point of the world will not be inaccessible anymore. All these advancements may be seen positive but some negative aspects should also be taken into consideration. The emergence of new inequalities called as digital divide in the most dramatic one of these negative aspects. The new inequalities caused from the use of computer and internet may come to mean new problems at social and even at global levels.

Robinson, Dimaggio & Hargittai (2002) and van Deursen & van Dijk (2010) use the digital divide concept to express the gap between having or not having opportunity for access to information and communication technology. Riggins & Dewan (2005) define digital divide as a concept emphasizing the gap between having access and usage skills. Hence, digital divide is considered in terms of informatics and communication technologies and comes to mean a range of various technological tools and methods from knowledge to resources, applications and services (Selwyn, 2006: 347). Selwyn (2006) and Hargittai (2002) state that the main point here is to establish the relationship between access and use and suggest that individuals prefer access and determine their usage skills according to their needs and demands that cause to a different situation. That is to say, individual may have access but if he/she does not know how to use it, then this may create a new aspect of inequality.

On the other hand, van Dijk & Hacker (2003) emphasizes that digital divide includes a complex problem and four important points which obstructs access should be taken into account. Accordingly;

1. Motivational/Mental Access: Indicates insufficient level of interest and technophobia of individual.

2. Material/Physical Access: Indicates no possession of computer and internet by individual indicates the lack of material access.

3. Skill/Ability Access: Indicates lack of training required for digital skills and low level of training.

4. Usage Access: Indicates the lack of opportunity to use.

Van Dijk & Hacker (2003: 316), Olphert & Damodaran (2013) and Hargittai (2002) state that they attach importance to motivational access. This type of access is associated with being desirous of using new Technologies particularly by elders. If individuals are not interested in learning technology or afraid of and refuse to learn it, this may cause to a condition that triggers the digital divide. In this respect, digital divide may be observed at three different levels as between individuals who have and have not computer and internet, who have and have not access to internet and who have and have not skills to use computer and internet.

The outcomes of inequality in these skills, when divided unequal within population, may increase the present social inequalities especially for elders. However, Selwyn, who studied the role of computer use in daily life of individuals, states that the digital divide notion presents changes and refers to new situations and meanings when both content and speed of advancement of information and communication technology are taken into consideration and the socio-demographic factors such as age, socio-economic status, education, family, gender are important in digital divide rather than possession, accessibility and usage skills and describes this as the third level digital divide (Selwyn, 2006: 241, 350). On the other hand, Olphert & Damodaran (2013) defines it as the fourth level digital divide when the decrease, even discontinuance, in usage level of user elders at later ages is taken into account. So, it is not stable who are social at networks or who will experience social exclusion and how these elders will cause to a separate divide section (Selwyn, 2006: 274). Thus, digital divide not only includes access and usage skills for development of new policies but also the impacts and results of relationship between individuals and technology presents a significant matter of debate (Görgün-Baran & Erdem, 2017: 1507-1508). These explanations point out that as the content production of information and communication technology and social media tools advance, the new divides will be inevitable.

According to the results of TÜİK Survey on Household Information Technology Use 2019; it is seen that as age increases the rate of computer use decreases and women use computer less than men in all age groups. It is possible to describe this result as the digital divide between men and women in Turkey.

2.1.1. Prensky's Concepts: Digital Native and from Digital Immigrant to Digital Wisdom

Many scholars draw attention to the differences seen at levels of information and communication technology use of individuals and the knowledge of elders in different age groups is not suitable for technological activities of future society even the knowledge and experiences of these elders is valuable and important. Because, these people had the socialization tools of their own era and they late became acquainted with technology because of life course. In this regard, Loas (2018) criticizes the digital native and digital immigrant notions attributed to youth and elders and underlines that these notions are not related with age variation. Loas (2018) tries to demonstrate that the elders are not digital immigrants in their own countries in his analyses of present studies conducted in Holland and also his qualitative study conducted by Loas. Loas criticizes the digital

native and digital immigrant concepts used by Prensky (2001) and states that the elders in his country are not digital immigrants. He also expresses that the old citizens may learn how to use ICT products, age is not an important factor, "user experiencing limitation due to age" expression may be used for age variation, and however the users at different ages constitute a wide digital spectrum. Thus, according to Loas (2018), it can be concluded that youth and elders cause to wide digital spectrum rather than digital divide in Holland. At least, all elder citizens cannot be included only in one category when their information search processes are evaluated. Although the digital natives and digital immigrants of Prensky (2001) seem to be available in Holland, this does not require elders to become digital immigrants in their own countries. According to Loas, life course, socialization and functional limitations due to age (as individuals get older) also play an important role in computer use. The design of websites according to the "dynamic variability" principle may present a solution. Also, the textual, visual and audio signs may be helpful. Young or old, we all live in this digital society. The digitalization of society will not decrease but increase – just like ageing population. He also states that we can prevent elders from being digital immigrants in their own countries if we let "dynamic variability" principle to guide us while we are adopting a multi-channel approach and designing the information resources. Thus, the criticism of Loas and the explanation of "being digital wisdom" stated in the study of Prensky in 2009 overlap and the criticism of Loas lose its meaning. No doubt that age factor is an explanatory variable; however, it is not satisfactory to assess the differences due to the age factor only. But, the inequalities of today demonstrate that elders have difficulty in reaching at information level and speed of youth towards new technological products and their contents.

In this case, Prensky (2001) uses *digital native* concept for youth, who were born into information and communication technology, and *digital immigrant* concept for elders in the literature. Today, youth is called as millennial, Google generation (Rowlands et al., 2008), *net generation* (Tapscott, 1998), etc. and the mastery of youth in using technology skills is widely mentioned (quoted by Görgün-Baran, Serdar-Tekeli & Koçak-Kurt, 2020: 261-262). In this context, the most important characteristic of digital natives, who are seen as born with technological knowledge, is that they can achieve more than one task in the same time by using only one device. The young generation of today, called as Z generation, refers to children who were born and grow in the new network environment and it is also emphasized by both Prensky and van Dijk that a digital language associated with digital culture is spoken by this generation as the native language. The digital technological products and environments used by the youth of today, who were born after 1980 and had grown with new technologies, are the integral parts of daily lives of youth. We face with a youth who have developed a new communication type by means of language and culture developed and used in network environment and digital world, easily adapt to information and communication technology, fond of their comfort and do not avoid from making mistakes or breaking such Technologies when using them (Prensky, 2001; Günther, 2007; Bennett, Maton & Kervin, 2008: 777-778; Tonya 2009; Gülsecen, Özdemir, Gezer & Akadal, 2014: 2396; Karabulut, 2015: 16). This position of youth shows their creativities and mastery in technology and also opens a new door into innovations. In this case, Günther (2007), who mentions that education should be digitalized, emphasizes that these young people can use technology very well but they cannot write it while discussing that teachers may be included in digital immigrant category and students may be included in digital native category. Consequently, the elders, who are not desirous in use of technology and have difficulty in keeping up with the times, may not indicate a usage performance since they cannot experience digital products in their lives.

However, Prensky (2009) states that the distinction between digital native and digital immigrant makes no sense since the people, who were born since the beginning of 21st century would grow in technology era, against the criticism to these comments. He also emphasizes that we should consider people in the frame of "digital wisdom" concept since 1980s and points out that these people can be called as "Homo sapiens digital" or "digital human". The content of this concept is that it implies the development of human beings as thinking, creating, designing and acting existence of "Homo sapiens sapiens" stated in the beginning of this article. Thus, Prensky uses the concept of digital wisdom to assert that human beings will live together with digital technology inevitably regardless the distinction due to the age factor. In this way, human will represent its own "distinctness" as an individual who can change and transform technology, seek and find technological products and use these products based on his/her needs and have control potential on these technological products in the future. So, Prensky (2009) discusses that "Homo sapiens digital" or "digital human" will present distinctness from the present situation because of two main characteristics: It considers the digital advancement as an integral part of human beings and human beings are also digital wisdoms based on the form of access to digital advancements supplementing the innate capacity of human beings and the form of use these advancements in order to take wisdom decisions. Consequently, digital wisdom includes a meaning beyond the generational divide defined through immigrant/native distinction. The progress of elders to digital wisdom by means of technology they use shall be revealed based on the experiences of elders in the study.

2.2. Literature Review

It was revealed in the research related to the digital technology use of elders that while the elders were making excuses for not using technology in the beginning of 2000s, they had begun to ask how to take advantages of technology and seek to use technology for entertainment purposes since 2010s. This digital divide seen among elder generation shows a partial

change today and the rate of digital technology use of elders and the number of related researches are gradually increasing[2].

According to the research conducted by Paul & Stegbauer (2005), the elderly population of Germany states that searching information is the basic motivation in internet use for themselves; the elders in Germany follow up news (online magazines) or particular information (for instance, product information or clues for travel). It is reported in this research that many elders in Germany (69%) use internet for recreational activities and almost half of them (46%) use internet for communication purposes (electronic mail or chat on the internet).

Olphert & Damodaran (2013) state that the huge digital divide in terms of internet use between elders and youth may be partially explained since elders may not have financial tools to purchase equipment and service, they may not have training or learn the skills required in the workplace and they may not have required motivation and interest to learn to use these new technologies. However; it is suggested that chronological age is not an important factor alone since many elders use computer and internet and enjoy using them. It should be also emphasized that economic income and cultural capital are also required for possession and using information and communication technology. According to the results conducted by van Deursen & van Dijk (2010) on digital divide in Holland, a great portion of population will be excluded from actual and efficient internet use rate. This situation is especially valid for population of which education level is not higher. Authors asserted that the governments should take new measures to have access to network, make content arrangements easy and increase the motivation of users in order to prevent such situations. However; according to the study conducted by Kalınkara & Sarı (2019), it is suggested that being up to date causes to an impact for elders to make use their time and the communication with family, grandchildren and friends by means of internet provides solution for loneliness of elders.

Elders should be digitally connected and have a tool for this purpose in order to take advantages of internet. However; the statistics show that the rate of access to internet is unequally distributed among elder population and the elders are less desirous and inclined than youth in for internet use in many countries. Haederle (2011) and Olphert & Damodaran (2013) suggest that "many citizens show a tendency from digital addiction to digital disengagement during a period spreading from middle to long term since their physical and mental capacities decrease as they get older" and makes a warning by stating that it may cause to a fourth disengagement/divide risk. Recent research shows that while 80% of total population of Britannia is using internet regularly, this rate is below 40% among elders aged 50 and above. The rate of elder internet users is too low in some countries, for example, while 67% of total population is internet users in Spain, elders represent only 12% of this rate and while 40% of total population is internet users in China, elders represent only 4% of this rate (Olphert & Damodaran, 2013). In Italy, 30,8% of 65-74 age group has internet access and 8,8% of 75 aged and above has access to internet. While 5.5% of women over 75 have internet access, 13.5% of men over 75 have access to internet in Italy (Colombo et al., 2018). While the rate of internet use is 15% for women aged between 65-74 and 25.3% for men aged 65-74, this rate is total 19.8% in age category in Turkey (TÜİK, 2019). The most important deficiency of data related to Turkey is that the people aged 75 and over are not included in the research.

Ağaoğlu, Önen & Tokatlı (2020: 179-180) found that the individuals aged 65 and over are interested in BEM, they have higher learning motivation, they are included in the higher socio-economic level in which access to technological sources is available, they acquainted with technology their technology use skills and technology literacy levels have increased as a result of training in BEM as a result of the Project in the scope of information and communication technology trainings organized in Information Access Center (BEM) in Çankaya district within the body of Ankara Metropolitan Municipality. However; it was also concluded that the elders felt unconfident and anxiety since they could not include technology use skills in their lives but the young people may use such technologies much better than elders.

It was tried to extract the techno-biography of elders in a research conducted by Colombo et al. (2018) with 28 grandmothers aged 65 and over who are defined as postwar generation (World War II) living in Milano city in Italy. In this research, it was observed that these grandmothers have had digital skill capacity and used smart phones, desktop computers and laptop computers regular since they had firstly used computers in their professional lives before retirement. The participants came from well educated, middle and middle-upper classes and many of them were interested in community activities and some of them reported that they learnt using computer by themselves and others reported that they learnt using computer in the courses and they stated that they considered computer as advantageous. Even, a participant, who stated that he had taught his daughter to learn computer, expressed that he learnt other advantages of digital technology with the help of his daughter now. While grandmothers had previously used computer for the purpose of work, they had begun to use computer for the purpose of entertainment anymore. It was also found that the participants have suffered oppression from their families because of technological matters. The first one of these oppressions was related to the communication with family members and children

[2] For detailed information; Görgün-Baran, A. (2019) presented in 10th Conference on Elderliness organized by YASAD in 2019 and published in its abstract book, Kuşaklararası bilgi transferindeki değişimler: Yaşlılar ve gençler arasındaki dijital bölünme, *Yaşlı Bakımı Bildiri Kitabı,* Yaşlı Sorunları Araştırma Derneği. Also, Görgün-Baran, Serdar-Tekeli & Koçak-Kurt (2020). Dünyada ve Türkiye'de sosyal ağların kullanımı üzerine bir değerlendirme. V. Kalınkara (Ed.), In *Yaşlılık Yeni Yüzyılın Gerçeği* (pp.263-296). Ankara: Nobel Akademik Yayıncılık. Again, Görgün-Baran, (2018), Yaşlı ve Gelecek. In E. Burcu-Sağlam, A. Öğün Boyacıoğlu, A. Gelgeç-Bakacak (Eds.) *Sosyoloji*. Ankara: Siyasal Yayınevi.

living far away, the second one was about the update and more functional use of digital devices and the third one was about complying with the technology. A participant, who was living alone because he lost his wife and his children were living far away, reported that he continued to computer course and bought a computer after learning to use it. This example may cause us to think that some participants may use computer in order to cope with loneliness and strengthen family ties. Some participants reported that their grandchildren were willing to teach them how to use computer and internet but they expected elders to understand them since they did not know teaching methods. The participants also stated that first their children and second the employees in service firms have helped them most when they faced with any problem about information and communication technology. It was also observed that the grandmothers were aware of digital technology culture from emoji to sending message, taking photos and shooting videos. At the same time, they stated that the women were freer and more active than men in digital environment and they knew that each digital technology had a separate function. As it is understood from these expressions, internet is accepted by many elders as an easy way for communication with family members, remembering and storing the pleasant memories and searching for travel opportunities.

Taking into consideration the data from qualitative and quantitative research on the elders between 65-85 ages in Sweden conducted by Olsson & Viscovi (2018), it was questioned that to whom elders apply for problems they faced with when using digital technology and whether elders needed intermediary experts or not. While 39% of the participants reported that they faced with problems frequently when using digital technology, 43% of the participants stated that they rarely had problems in using digital technology. When the people to whom they applied for problems were asked, it was determined that the participants had applied to their children, their spouses, grandchildren and friends respectively in order to solve the problems in using digital technology. Here, it is observed that the elders consider the surrounding people as the intermediary experts rather than providing a Professional assistance. Consequently, although the participants have been using digital Technologies since 2005, they again need help for use and problems they face with. Hence, it is understood that they prefer to apply to intermediary experts for assistance This finding is overlapped with the view of Olsson & Viscovi (2018) related to the need for intermediary experts. When the lack of confidence and digital literacy of participants in using digital technology are taken into account, it is possible to understand their needs for intermediary experts. The organization of preparatory education programs and willingness help of people surrounding elders to provide assistance in using technology may be helpful for solution of problems of elders faced with when using digital technology.

It was determined that the elders were desirous in using digital technology and they had positive views about using such technology according to the qualitative study with the elders between 59-77 ages in New Zealand conducted by White & Weatherall (2000). All of the participants stated that they were graduated from higher education, had a computer and were able to use computer at intermediate level. The research findings summarized as follows: It was seen that the computer was associated with the interest fields and recreational activities and the use of computer made it easy for elders to deal with their interest fields. The participant elders stated that surfing on the internet and searching information on internet were mentally stimulus and entertaining. Financing and cost were determined as the important factors for elders in using and possession of computer technology. The elders had considered computer as a tool. The participant elders also reported that they used computer in order to be helpful for them in various matters (database for music, financial accounting statement, electronic mail, etc.). It was also determined that the communication with family members, especially grandchildren and friends by means of computer had an important role in the lives of elders.

On the other hand, the findings of two other research related to the refusal of using new communication technology by elders since they think that these new technology would be out of date; as stated in the report titled "Elders, Technology and Society" prepared as a result of research conducted within the body of Independent Age (2010), it is determined that elders usually do not use technology because of its design and it is suggested that "small buttons, commands requiring attention and unnecessary complex interfaces often discourage the elders who were not grown up with technology and whose manual skills are not better anymore". In this matter, according to the research conducted by Zain (2020: 309-310) with five mobile phone firms, it is stated that the mobile phone devices should be designed to engage the visual and audio senses of elders suffering from limitations of their physical conditions and to prevent interfaces from causing to confusion and the devices, which provide emergency assistance, better visibility and intonation, should be produced. In addition, it is emphasized that the devices to be produced for elders should be in such a way not to cause to age discrimination.

Duimel (trans., by Loas, 2018) claims that there are old citizens who do not use or do not want to use internet since they are afraid of trying a new thing and making mistake (these are also called as "hard liner"). However, the factors such as cost, unaware of new possibilities of this new environment, feelings such as shame, concern about performance and loss of reputation play an important role in nonuse of digital technology by elders.

It is determined in the literature that both technology production and advertisement firms do not take into consideration the individuals aged 65 and over as the consumers. Because of this reason, Turan (2020: 355-357) asserts that the individuals included in this age group should be informed about available online service advantages and online service security, the types of content aimed at access and interest of elders aged 65 and over should be digitalized, developed and

the elders should be promoted to use digital technology. Also, it is suggested that the language and images, used in the contents for individuals aged 65 and over, should be determined and used according to the characteristics and needs of elders and a user guide should be prepared. On the other hand, while the individuals at 55-64 ages and above 65 are hardly ever taken into account in publishing sector, it is observed that an access for individuals at 55-64 ages is provided in television series sector. Therefore, it is recommended that the firms should provide access at the same level for all individuals from all ages. Firms should take into consideration the old age population in access to and use of digital technology and take a firm stand on inclusion of elders in society by using digital technology.

Elders mostly use Facebook, Instagram, YouTube and Twitter respectively in social media platforms (Taşan, 2018). Gök (2018) states that the elders mostly use computer, tablet and smart phone except the traditional media tools such as television, radio and newspaper in order to spend spare time at home. Koçak & Terkan (2010) argue that the elders use internet in addition to traditional media tools for the purpose of entertainment and spending good time.

Studies suggest that computer and internet will be a strong supporting technology for elders, help elders to act independent, provide social connection because of declined health or limited social capacity problems and also provide new opportunities to increase the quality of life for elders (Olphert & Damodaran, 2013; Özkan & Purutçuoğlu, 2010; Kalınkara & Sarı 2019; Becerikli, 2013). On the other hand, it is a fact that the elders, who are exposed to exclusion from society because of factors such as poverty, isolation and illness, may face with various forms of exclusion from information era if they cannot access to the services and opportunities provided by means of internet. Because of this reason, the governments and other organizations in many countries make investments in technical infrastructure, raising awareness and training activities for elders and development of digital content and digital services in order to increase the access to internet and promote the digital connection.

3. ANALYSES of RESEARCH DATA

It was tried to comprehend the attitudes to technology, use of applications such as technology products and social media and the perception of technology and the place of technology products within life by elders in the scope of this study. The analyses themes were determined in connection with the interviews made with the elders and the theories used in the study. The information about the socio-demographic characteristics of the elders aged 60 and over is presented in the following table in this section of the article. The data analyses themes are presented after the socio-demographic data of the participants.

Socio-Demographic Characteristics of Participants

The interviews were made with total 23 participants, as 13 women and 10 men, in the scope of the research. The interviews were made with 17 individuals aged between 60-79 and 6 individuals aged 80-86 by the age distribution of the participants.

It was observed that all participants, except one participant (K9), have been using smart phones when the technological products used by participants were taken into account. 15 participants were using computer and 14 participants were using tablet.

Analyses of Theming Data

Today, it is seen that the research related to technology matter are conducted not only on youth but also on elders. In this regard, it is anticipated that there may be not only differences but also the similarities between youth and elders. From this perspective, it is aimed to comprehend the place, usage method and purposes, efficient use and technical and generational problems occurred during use of social media intertwined with communication and technology in the scope of this study conducted with elders.

It is observed that the individuals are subjected to a particular age categorization in terms of use of technological products (Taipale & Hänninen, 2018; Colombo et al., 2018; Delello & McWhorter, 2017; Deusdad & Riccò, 2018). This classification limits the type, intended purpose and form of use of each product/technology. It is tried to understand and interpret the social media applications preferred by elders, the intended use of these social media applications, the problems occurred during the use of technology and coping with such problems of elders aged 60 and over who use smart phone, tablet, computer, etc. in the scope of this research.

The data obtained from this research were analyzed manual by reasoning and evaluated under two developed basic themes. The title of the first theme is “Concerns of Digital Immigrants” and the title of the second theme is “Virtual Passage Screens from Digital Immigrant to Digital Hybrid: Social Media Accounts”. Two sub-categories called “Practical Concerns” and “Meaning Concerns” are placed under the concerns of digital immigrants title and two subfields called “Perception of End of Community” and “Fear of Loneliness” are placed under the meaning concerns title.

Table 1. Information about socio-demographic characteristics of participants in the research

	Gender	Age	Education	Profession	Economic Status	Employment Status	Technological Devices
K1	Man	63	University	Customs Brokering/ International Transportation	Middle	Retired	Smart Phone, Television, Computer, Tablet
K2	Woman	61	High School	Housewife	Middle	No Social Security /Not Employed Now	Smart Phone, Television, Ipad, Ipod
K3	Woman	83	Secondary School	Housewife	Middle	Never Employed	Smart Phone, Ipad, Television
K4	Man	80	High School	Self-Employment	Middle	Retired	Smart Phone, Laptop, Television, Tablet
K5	Woman	61	High School	Secretary	Lower-Middle	Retired/Telephone Operator	Smart Phone, Computer
K6	Man	70	University	Lawyer	Middle	Retired/ Legal Counsellor	Smart Phone, Television, Computer, Tablet
K7	Man	70	University	Instructor And Legal Counsellor	Upper-Middle	Retired/ Legal Counsellor	Smart Phone, Television, Treadmill, Massage Appliances, Computer, Tablet
K8	Woman	84	Üuiversity	Lawyer	Middle	Retired	Smart Phone, Ipad, Television
K9	Woman	63	High School	Housewife	Middle	Never Employed	Mobile Phone, Ipad Computer, Television,
K10	Man	62	University	Electronics Engineer	Upper-Middle	Retired	Smart Phone, Television, Computer, Tablet
K11	Man	60	Higher Education	Technical Draftsman	Middle	Retired/Procurement Manager	Smart Phone, Computer
K12	Woman	62	Higher Education	Nurse	Lower-Middle	Retired/Provate Secretary Of Foundation President	Smart Phone, Computer, Television, Treadmill
K13	Man	69	University	Civil Engineer	Upper-Middle	Retired	Smart Phone, Computer
K14	Woman	66	University	Mechanical Engineer	Upper-Middle	Retired/Counsellor	Smart Phone, Computer, Tablet
K15	Woman	86	Secondary School	Housewife	Middle	Retired	Smart Phone, White Appliances
K16	Man	85	Secondary School	Shoemaker	Middle	Retired	Smart Phone, Smartwatch, Computer, Tablet
K17	Woman	62	High School	Housewife	Middle	Never Employed	Mobile Phone, Tablet
K18	Woman	60	High School	Housewife	Middle	Employed In Part-Time Jobs	Smart Phone, Tablet, White Appliances
K19	Woman	64	Doctorate	Lecturer	Upper-Middle	Still Working At University	Smart Phone, White Appliances, Computer, Ipad
K20	Woman	62	University	Medical Doctor	Upper-Middle	Still Working	Smart Phone, White Appliances, Computer
K21	Man	84	University	Teacher	Middle	Retired	Smart Phone, White Appliances
K22	Man	64	University	Medical Doctor	Upper-Middle	Still Working	Smart Phone, White Appliances, Computer
K23	Woman	61	University	Statistician	Upper-Middle	Still Working	Smart Phone, White Appliances, Computer

Concerns of Digital Immigrants

As explained in the method section of this article, "digital immigrant" concept is a comprehensive notion refers to the exposure of individuals aged 60 and over with technology and their actions related to the technology. From a historical perspective, digital immigrants represent a segment of individuals who had maintained their lives based on functional rules and cause and effect relations determined by modernism after Industrial Revolution. They are called as baby boomer generation in the literature. On the other hand, "digital natives" were born into digital era called advanced technology era in 1990s and thereafter. From this perspective, it is comprehensible to find precise distinctions between "digital immigrant" and "digital natives".

The transformation of social relationships is observed because of rapid "advancement" and "development" of technology. In this context, the individuals aged 60 and over have concerns about socialization and establishing social communications in daily life. In addition, it is observed that those individuals do feel in confidence in use of technology and the possible problems/difficulties which may occur during the use of this technology.

The generation transformations are inevitable for the generation called as *"digital immigrant"*. Such that, while the elders are focused on the comfort of social values, order and definitiveness; a new life perception, which is focused on individual values than the values of majority, and a new societal, in which societal concept is criticized and transformed from various aspects, on behalf of *"digital natives"* begin to prevail. The social sphere has been transformed into a scene in which individual fictionalizes according to own values and expectations like the transformation of screens of ambiguous and touch screen smart phones or computers promising "freedom" due to the options of users rather than the down-level computers and dumb phones which are touchtone and of which intended purpose is limited by manufacturer firm. The relationship between individuals aged 60 and over and technology in terms of the mentioned transformation were analyzed under the titles of two basic concerns defined according to the own interpretations of the participants. These are called as practical concerns and meaning concerns respectively. First, the practical concerns will be discussed.

a. Practical Concerns

It is observed that the elders present some concerns about the use of technological products. For example, there are elders who resist using smart phones, complaining about the instruction books or emphasizing that they have to take assistance from kith and kin. In this regard, the practical concerns, in fact, include the concerns about use of technology.

The "liquidity" of today forms the opinions related to the use of technology products against the "clearness" of modernism. Such that, the adaptation to touch screen is a challenging condition for K15 who presses a certain button of mobile phone to call her daughter (and who asserts it as a great ease). As K15 reported; "I had learnt to use this mobile phone yet, but the new model had launched, and now I am trying to learn to use this model upon the insistence of my children, I am using but I am getting worried when a new one is launched since I will have to learn each time" (K15, Woman, 86).

In this context, the rapid change in the model of the product and the outcomes of liquidity mean that the elders aged 60 and above cannot use technology easily. The expectation, related to the net outcome against net income kept in mind as a social principle by modernist era, may be one of the reasons of concern of elders about liquidity. However; this the way of adaptation to new liquid society. "In fact, each new product brings more advantages for people at our ages. Because, we can not only access to everyone needed at emergency, but also many applications beguiling us. Moreover, these products cause to feel of bringing innovation to life" (K19, Woman, 64).

So, according to the expressions of the participants, we see two groups, the accepting group and the refusing group. These groups were considered after they were conceptualized as individuals having positive and negative concerns about perceptions of technological communication tools in the scope of this research.

While the individuals, showing negative concerns, have a mentality dominated by more traditional but still modernist perception (that is to say, the perception of 1940s), the individuals, showing positive concerns, worry about not only getting out of date but also staying in contact and being aware of advancements in the world. While K1 defines this situation as "keeping up with the time/the necessities of the time", according to K14, this means "to reach/to be reached immediately, global accessibility/to be accessible and global information". It is seen that the individuals, showing positive concerns, need to live like "digital natives" and go beyond their own underdevelopment although they cannot reach at the speed of digital natives (K4). As K2 explains; "today, the biggest weapon of youth is the speed". The individuals having positive concerns define the speed as the biggest weapon of digital natives, want to live at the same speed or at least they worry for if they are deprived of this speed, they may be excluded from life because of process of today.

The participants, who do not want to fall behind the technology, the necessities of the time and communication forms used by youth, assert that "they can use and are intertwined with technology" (K7, Man, 70). In this regard, the individuals, who present positive concerns, need to seize the moment, life and flow. The individuals, who are aged 60 and above and want to use technology and technological products and are proud of achieving it, may be likened to the refugees who try to adapt themselves or their identities to the new place they moved. The refugees, who accept and adapt to their new habitats may be defined as "digital immigrants having positive concerns" who progress to be digital wisdom according to the conceptualization of Prensky.

Contrary to the "digital immigrants" having positive concerns, the fundamental concern differences among

the ones having negative concerns should be discussed. For instance, the notion of touch-operated means to unpredictable, unclear, unseen and indefinite for the individuals who present negative concerns. This type of interpretation causes to think that they try to continue the immigration ideal. It is observed that many participants criticize the "digital natives" since they spend much more time to use tablet, smart phone or computer. K3 reports that "technology will not be harmful when it is responsibly and appropriately used". However; it is understood that K3 also imposes a time limitation for his/her own according to his/her expression: "I take care to use this device responsibly and appropriately". In addition to this, K17 also thinks that the time limitation should be compulsory. Most of the participants believe that the time should be controlled when using technological products (or when using social media or similar applications). The comments of the participants, who emphasize that people should not spend loner times in use of technology, represent the negative practical concerns.

It is also understood that the participants are afraid of being addicted to technology associated with the overuse of technological products/applications. In this context, it is observed that they criticize the "digital natives" and try to put themselves in a position different from "digital natives".

K5 puts herself in a position different from "digital native" with her expression: "...I search what I look for and then logout, I do not use it for long hours. We see young people use internet everywhere, at streets, buses. They also speak aloud on the phone. That's not right!" (K5, Woman, 61).

The fear of dependency may be said to cause negative practical concern for elders to use technological products in daily life. Since the "digital immigrants" see the technological communication devices as an indisputable instrument of daily life practices within normal flow of life, these technological communication devices mean to additional materials which are articulated to the lives of elders, not internalized by elders and not included in the natural flow of lives of elders.

In this context, it is understood that the individuals showing less negative practical concerns are far from traditionalism, do not want to get out of date, believe in the key role of reaching at the speed of "digital natives" and access to both local and global information. Therefore, it is understood that the individuals showing positive practical concerns make more of an effort to use such technologic devices.

On the other hand, it is observed that the individuals showing negative practical concerns do not want to quit their customs and habits and worry in terms of meaning concern (as to be detailed in the next section) and feel fear of loneliness.

b. Meaning Concerns

The perceptions of individuals aged 60 and above of technologic products and use of such products include not only practical concerns but also meaning concerns. Because of this reason, as separate from usage, a title for meaning concern was developed according to their lives and values defined and expressed by them during the interviews. The digital natives and digital immigrants put technology in different positions in terms of interpretation and explanation of the world and this is because there are fundamental differences between the perceptions of technology by digital natives and digital immigrants. While technology is an essential for "digital native", it means "adventitious" for "digital immigrant". It is normal for digital immigrants to worry about future since this situation requires "digital immigrants" to go beyond the ordinary in their lives.

i. Perception of end of Community

While society and community are clearly defined for "digital immigrant" coming from the definite, described, accurate and focused on caused and effect relation world of modernism period, it can be said that today this definition begins to become almost meaningless, even the accuracy is limited with instantaneous actions. The concept of community perceived by "digital immigrants" and the society models defined in early capitalism period are used in the scope of this research. However; when the matter is taken into consideration in terms of both social practices and social communication, the possibility of continuance of existence of the community perception in the beginning of classical capitalism, the rigid agreement between individual and community and the ties between individual and public is questionable today. In this section of the article, the transformation of the classical community and in this regard, how community is becoming different will be discussed in this section.

Community was considered as the environment where individuals come into existence after Industrial Revolution period. Moreover, individual was for society. "Value", "principle" and "moral" were accepted as the social concepts. Individuals had realized their existence through these concepts; therefore, they had acquired "personality" dependent on community. Respective ideals, tasks and duties had caused to organic ties of individuals with community. Individual were unimaginable without social values. But, in contrary, today individuals believe in existence dependent on their own, not society, and build a life in the frame of individual values beyond the mentioned social values. The building of such a life requires flexibility when it is combined with rapidly flowing life conditions and causes to a "personal moral" consisted of instantaneous and changeable set of values and imposed by liquid life on "digital immigrant". As one of the participants reported; "It is not possible to understand the youth of today! It was not like this, in our days. As the name implies, individually participation in society. Today's youth, do they participate in society, he? They bury their heads in the sand like an ostrich, they use tablet, computer, smart phone all day" (K11, Man, 60).

Most of the participants reported their worries about that the young generation is detached from social life, become introverted, is captured by technology and this is not a sound condition for them.

As mentioned in the above written quotation, "digital immigrants" have troubles against attitudes and behaviors contrary to their set of values. In this context, they describe youth as dissocial. In fact, the concept of asocial used by "digital immigrant" means to "individualism". This concept is contrary to the set of values according to the perception of "digital immigrants" who are not adapted to the new set of values. The contradiction here may be the definition of individualism as a risky discriminator on behalf of the rest of society. It is observed that the digital immigrants are not accustomed to changefulness and liquidity. It is understood from the expressions of participants that the stability or foreseeability rather than changefulness makes them feel confidence. In this regard, the relation between new generation and technology may be interpreted as "devoid of meanings of real life" or "unnecessary values" by "digital immigrants" who feel alienation in the era of "digital natives". Because, real life means to face to face and one-to-one communication including work life, education and private sphere of individuals according to the point of view of digital immigrants. End of community means to depreciation and isolation from society according to the perceptions of digital immigrants. While social values are considered as sacred values for "digital immigrants" who base the life on rules and cause and effect relation, the world in which they live today is focused on individualism anymore. *"Digital immigrants"* view this meaning shift risky for generations coming after them. At the same time, this perception may also be interpreted as the social isolation fear of *"digital immigrants"*.

While many participants have rigid views about youth, some participants also report that they learn many things from youth. K21 has a more positive view and reports followings;

> Our world is completely different from theirs. If we cannot understand the world of youth, we will be alienated from our children. Because of this reason, we must be willing to learn how to use this technology… Indeed, I use smart phone but it has too much abilities and features… I ask my children or youth when I live a problem with it. They are all helpful. We are coming together and they teach me to use it. The other day, I learn how to take photo and send it (laughing), it made me so happy (K21, Man, 84).

These expressions reveal the high level of motivation elders to use technologic products. Being willing makes it possible to learn quickly and establish generational relationships. Therefore, the hesitations of elders in terms of use of technology and their views related to the dependency on technology may cause to a gap between elders and youth and this situation may be interpreted as digital divide.

ii. Fear of Loneliness

While the "digital natives" represent the virtual world, the "digital immigrants" represent the real plane (and also mechanical one) within a period when the transformation of community is observed. This reveals the basic difference between these two generations. New individual values are emerging in the context of changing and transforming values. The concepts such as "loneliness" and "individualism" refer to the unsociability notion defined by "digital immigrant" and the unsociability notion refers to a new social environment for "digital native" according to this new type of perception. It is understood from the data of research that the loneliness is perceived as a threat for "digital immigrants" but considered as the key of personal freedom for "digital natives".

Loneliness means to freedom for "digital natives" and thus technology removes the borders. In this regard, "digital natives" do not prefer face to face interaction (rather, they prefer virtual interactions) and instead of a permanent or stable stand they use virtual identities which are instantaneous and changing due to the conditions in order to keep in step with the existing conditions. Because of this reason, the digital natives prefer online socialization and they are focused on online version of instantaneous life.

Although the impulse of *"digital natives"* for having a continuous changeable and renewable identity disturbs some of the *"digital immigrants"*, it is determined that the "digital immigrants" also need to have a virtual identity because of transformation of community. However; their perception coming from past reminds them that the unstable and unforeseeable things are risky and dangerous. The *"digital immigrants"* who cannot adapt to the set of new values face with getting lonely and becoming isolated in an environment in which the impact of virtual life on real life intensifies. However; according to the data collected from the interviews made with the participants of the study, the digital immigrants cannot stand this loneliness. In addition to the oppression to have a virtual identity, the "digital immigrants" are afraid of being unsuccessful to have this new identity and they argue that the ones who achieve to have a virtual identity (that is to say, youth) are asocial because of this fear while they want to share the same platform. It is observed in the research that some participants circled the wagons in this matter. One of the reasons underlying the perception of unsociability as a threat may be developed by this way. Because, each individual, who is not sharing the same platform, may turn into a threat for loneliness of digital immigrant. If the mechanical individual cannot develop a virtual identity as a necessity of existing social order featuring the individualism, may mean to the exclusion from existing communication field. Because of this reason, the fear of assimilation for "digital immigrant", who conflicts with own values and considers that he/she cannot exist in this new field and has to be similar to new generation, leaves its comfort field and emerges as a criticism for being digital native.

However; it is observed that there are also "digital immigrants", who can find a place for themselves in this new technologic platform, although they emphasize that they do not speak the same language with "digital natives". This demonstrates that the "digital immigrants" may transform into "digital wisdom". It is also understood that some of the "digital immigrants", who were interviewed within

the scope of the research, may adapt themselves to this new technological communication platform.

Virtual Passage Screens from Digital Immigrant to Digital Hybrid: Social Media Accounts

It is observed that some of the "digital immigrants" may adapt themselves to the new technological communication platforms according to the data obtained from the interviews made with the participants. Social media accounts are the first existence environment in virtual world of this group, to be called *"digital hybrid"* (Tonya, 2009; Karabulut, 2015). Particularly, according to the feedback from the participants, it is understood that social media accounts are preferred since their use is easy and functions are simpler and they are widely used by people in the immediate environment and consequently bring visibility for elders. Within virtual platform, social media means to be informed about many things and it is considered as a sign of a life intertwined with technology for elders. Because of this reason, many participants are proud of having social media accounts. Having a social media account is considered as having a social status for individual. However; once they have a social media account and start to use it, they begin to praise many things which they previously deny and criticize. Some participants also confess that they begin to do the things which they previously criticize "digital natives" for after they have a social medial account. "It makes me feel good to talk and communicate with my friends and relatives by means of social media account. Yes, I always criticize my grandchildren since they use smart phones too much but, unfortunately, I began to spend most of my time in social media accounts" (K2, Woman, 61).

As understood from their own expressions, "digital immigrants", who are turned into "digital hybrids", use social media accounts as the first passage screens to realize their virtual existences since these social media accounts are the easy way to take place in technological platforms.

According to the data of this research; while Whatsapp is the most used application, it is followed by Facebook, YouTube and Google as the communication tools. The participants use Whatsapp for communication, Facebook for communication, follow up and entertainment and YouTube for entertainment, information, interests (various recipes) and TV series. Particularly, while Whatsapp is a daily used application, Facebook is even used frequently. Only two participants reported that they cannot use Whatsapp since they do not have smart phones. YouTube is being used by the participants almost every day. Twitter is another application used for information purposes. The participants, who use this application, state that they follow up news and get informed about surroundings through this application. Instagram is another application used to be informed about fields of interest, people and platforms. Also, the participants often prefer to use this application. In addition to these, Pinterest is another application preferred by the participants for the purpose of information, recipes, and fields of interests, handwork models, repair and daily recycling activities.

The use of various social media environments by the participants may cause to the gradually decrease in digital divide. In addition to this, digital divide is also available among elders who do not have mobile phone or smart phone and cannot access to internet because of this reason.

Most of the participants stated that the internet and social media technology should be learnt, taught and used regardless the age of users. But there are also participants who think acquiring digital technology is due to purchasing power. Consequently, today, an unequal distribution is observed among classes in terms of access to technology and there is a digital divide between the ones who have and do not have technology products.

While some participants think that technological communication devices are advantageous for information and being up to date, the others consider technologic advancements in a positive manner in terms of elimination of distance problems. "...it is not like before; the videophone systems are available through smart phones and computers. The daughter of one of my friend lives in ABD and they usually use videophone system. Now, distances are not important … of course, that's something good" (K13, Man, 69).

There are also participants who emphasized the importance of smart phones and social media in order to ensure communication. However, some participants state that they do not need both of them. While smart phone is a must for some participants, K8 argues that smart phone is not very important for her generation but fixed phone is a must for her. "The fixed phone at home is a must for me, the best… it is enough for me, because I am not in business life..." (K8, Woman, 84). Also, K8 emphasizes that the failure of tablet or lack of access to internet causes to the feeling of isolation from world. In this regard, she underlines the critical role of technology in terms of communication and emergency situations. On the other hand, K7 states that he can find all required information at internet, even he can make shopping online, but he continues to go to bank for banking transactions. However, he also mentions about the importance of catching up with the times. "Using new technologic products is an obligation anymore. Everything is done through internet, we should catch up with the times, we cannot fall behind the times" (K7, Man, 70).

While K5 states that mobile phone has an important role in her life since she always has to be in contact with her children, the mobile phone is an obligation for K9. But this obligation is caused from her family. Such that, she argues that if her family cannot access to her, a great crisis may arise and therefore she has to take her mobile phone with her every time although she does not like this situation. "My children always want to be in contact with me. If I answer the phone late, they get worried, so I have to keep my mobile phone switched on and take it with me every time. Indeed, I do not like it" (K9, Woman, 63). This demonstrates that the technological communication devices are used, although rare, by "digital natives"

and "digital hybrids" as an element of oppression on "digital immigrants".

As it can be understood from the expressions of participants, it is accepted that the internet and technologic products such as smart phones have become the integral part of daily life. However, while there are a few participants who think they can live without using such products, majority of the participants think these products are important and a must for them in daily life.

4. DISCUSSION AND CONCLUSION

Rapid technological changes have deeply impacted social structure and relations and brought many advantages and disadvantages both positive and negative. A series of innovations come into life such as meeting with a new technology, trying to learn how to use this new technology, taking advantages from ease and functionality of new technology, establishment of communication Networks considered as revolution in social relationships may be considered as the positive advancements. A new condition called digital divide/digital disengagement may be considered as the negative advancement of this new technology. Digital divide emphasizes inequality and it is commented that the content of this concept cumulatively developed due to the advancement of technology. According to van Dijk & Hacker (2003) and Olphert & Damodaran (2013), the gap between the ones who take advantages of internet and the ones who do not take advantages of internet is called "digital divide". Many researches make an effort to find out the factors underlying this matter of fact (Robinson et al., 2002; Selwyn, 2006; van Deursen & van Dijk, 2010). These studies demonstrate that digital divide is not a binary simple gap between the ones who have and who do not have access to internet and between the ones who use and who do not use internet, but rather, digital divide is resulted from three inequality sources both in the nations themselves and among nations. In this context, digital divide is emerged in the following conditions:

i. when individual cannot access to appropriate equipment,

ii. when individuals do not have required skills and capacity and

iii. when individuals do not need the required functionality of this new technology and the content acquiring motivation (Görgün-Baran & Erdem, 2017).

Digital divide caused to coining of "digital native" and "digital immigrant" concepts in terms of the ones who use and do not use this technology. In this regard, Prensky (2001) made a generational distinction and considered the generation, that is to say, youth born after 1980s as the digital native and also considered the generation, that is to say, elders born before 1980s as the digital immigrants. Although, this characterization is criticized by Loas (2018) and Bennett, Maton & Kervin (2008) since it is an evaluation made due to the age factor only, the existence of population of elders, who are not seen sufficient in terms of use of ICT, in almost every country, makes this characterization possible. Prensky (2009) developed a new concept against these criticisms and pointed out that ICT products of today have been developed and everyone, who begins to adapt to this technology, will be digital wisdom/digital human. Although, the digital human concept of Prensky is adopted in this study, the evaluations are made by accepting the fact that the attitudes of elders against digital immigrant still continue.

The skill and desire to acquire and use this technology caused from digital divide are very important for elders. Because the socialization tools of their eras and their practices related to life resulted in not growing with up this technology, lack of skills to use this technology and low level of motivation to acquire and use this technology. Yet, many studies demonstrate that many individuals aged 60 and over hold on to the life and cope with loneliness by using this new technology, have high level of motivation to use this new technology and are aware of recent developments (Colombo et al., 2018; Olphert & Damodaran, 2013; Paul & Stegbauer, 2005).

According to the research findings, the participants, who spent at least 2-3 hours a day in social media platforms through computer or smart phone, reported that over dependency was not a good situation. This finding is overlapped with the research conducted by Colombo et al. (2018). The participants also stated that they have used this technology for 5 years minimum. While some participants emphasized that when their children bought a new smart phone, they gave the previous one to them, K5 stated that when her spouse bought a new one, he gave the older one to her. These findings demonstrate that the elders have a high level of motivation in using digital technology but they are not as capable of as youth in terms of skills required using this technology and they need assistance to learn how to use this technology. These findings overlap with the research and remarks of Colombo et al. (2018), Olphert & Damodaran (2013), van Deursen & van Dijk (2010), Olsson & Viscovi (2018), Ağaoğlu et al. (2020) and Sütlüoğlu (2020). Thus, the participants explained how they met with and used digital technology in their lives by using techno-biographic method including self-directing narratives.

It is understood that the participants use social media platforms such as Whatsapp, Facebook, YouTube, Google, Instagram, Messenger, etc. Some aspects of these findings are similar with the ones included in the literature. For example, while the elders are using Facebook in the first place in the study of Becerikli (2013), Whatsapp is the first one in this study. This difference may be associated with the development and popularity of social media environments. On the other hand, the findings of this study are similar with the findings of research of Koçak & Terkan (2010), Taşan (2018) and Gök (2018) in terms of use of social media in addition to the traditional media. The participants reported that they both followed up and used traditional media and social media defined as new media and they did not consider themselves as addicted to new media. As the new platforms develop, the elders also use such new platforms and this demonstrates that they adapt to new conditions, they have high level of motivation and desire to use such

technology. Consequently, it is understood that the participants present motivation criteria that is an important factor in decreasing the digital inequalities. Further, they reported that they were willing to learn and when they faced with a problem, they applied to their children or grandchildren at home and young people in the workplace and they did not feel uncomfortable when asking for help. The participants, except one (K7), also stated that the young people were helping them for learning, showed respect, tried to teach with jokes and fun and they did not lose their authority and control because of this learning process. It is understood that the participants place their modern self-righteous attitudes on one side and give youth credit for knowing this technology very well. Thus, digital native and digital immigrant concepts emerge inevitably in such a situation and there is an information transfer from youth to elders. Consequently, it is possible to say that the participants move from digital hybrid forward digital wisdom/digital human.

The participants expressed that learning digital technology was one of the necessities of the time and if they could not learn how to use this technology, they would be excluded from society and they could not keep up with the times. They explained that they used digital technology in order to have information, communicate with their families, children, grandchildren and friends, fulfill longing, learn about different topics on Google, have information about travel, health, make online shopping and reservations, banking transactions and business matters, etc. This finding overlaps with the research conducted by White & Weatherall (2000). However, two participants (K6 and K15) stated that they did not use internet for banking transactions and they preferred to go to bank personally for transactions. It was observed that these two participants did not have confidence in online transactions for banking and other monetary transactions and so they tried to solve such problems face to face by going to bank. It is understood that many of the participants represent a modern attitude going beyond traditional perceptions through banking example but, as expressed by K6, there are also individuals who still need to feel in confident by seeing with their own eyes, hearing with their own ears and touching with their own fingers. The participants reported that they were pleased to use ICT and social media, use of ICT and social media caused to an increase in self-confident and a modern and wise status among their peers, use of digital technology helped to cope with loneliness and provided many opportunities in various fields. These findings are also consistent with the studies conducted by Olphert & Damodaran (2013), Özkan & Purutçuoğlu, (2010) and Kalınkara & Sarı'nın (2019). In this regard, it can be said that digital technology serves a great social support function for elders.

The problems which the participants face with while using smart phone are other findings of the research. The small sizes of smart phones, confusing the letters when using keyboard and update problems are the major troubles. The participants expressed that the interfaces of computer, smart phone and internet were too complex to understand and a more understandable and learnable interfaces should be designed and produced for elders. This finding is also consistent with the literature (Zain, 2020; Turan, 2020; Olsson & Viscovi, 2018). The limitations in visual and audio functions suffered by people aged 80 and over cause to less and lower use of this technology. Therefore, it is recommended to increase the number of researches related to model designs to be produced by firms for elders. In this study, it was concluded that the elders have increasingly progressed to become digital wisdom. When it is considered that artificial intelligence and robotics will become prevalent in societies, the practices in order to be digital wisdom/digital human should be implemented.

The digital divide between the participants and youth cannot be solely associated with the factors such as age, socialization and life course, etc.; however, it is impossible to say these processes are not efficient. The technological designs appropriate for elders and the contents, of which interfaces are not complex, should be developed and produced for use by elders since the use of such technologies increases the life quality and life motivation of elders. It is recommended that the support of firms, local administrations, universities and research institutions and the development of technology use models for older population are required in order to achieve this purpose. In addition, the intermediary mechanisms should be activated and the support mechanisms should be developed for elders who do not know how to use digital technology. No doubt, the governments should develop policies including financial contribution and promotion and the priority should be given to the activities preventing the digital divide.

Conflicts of interest

There are no conflicts of interest.

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