



Research on the Digital Divide of the Aged Population in the Context of Population Aging

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Abstract. With the rapid development of information technology, the digital divide among the elderly has become a major social problem. The outbreak of COVID-19 has highlighted the digital divide among the elderly in front of the public. The digital divide of the elderly is mainly caused by the intelligence of modern social life, the cost and economic development, the attitude and cognition of the elderly and the lack of products suitable for aging. In the context of aging, we should actively narrow the digital divide between the elderly and promote the elderly to adapt to digital life from the three aspects of government, society and family.

Keywords: aging · elderly group · digital divide

1 Introduction

Aging population is an inevitable trend of social and economic development, and also a major problem facing China. In 2020, China conducted the seventh national census. According to the census data, the total population aged 65 and above in China in 2020 is about 191 million, accounting for 13.5% of the total population in China. China is gradually entering the moderate aging stage. According to the UN World. It has become a consensus that the aging trend is irreversible [1].

Along with the aging population comes the digital age, which brings a series of digital opportunities and dividends. Its main beneficiaries are the young and middle-aged, while the elderly are marginalized by digital education due to inadequate digital education and outdated concepts. The opportunities and dividends brought by the digital age and a series of social problems brought by the aging have been intertwined and collided, resulting in a big social governance problem -- the digital gap between the elderly. The digital divide refers to the differences in the ownership and use of information technology by people of different genders, ages, incomes, and classes, and the differences are only widening [2]. The elderly are the main group of digital divide and the special group most affected by digital divide. In the rapidly advancing digital era, there is a huge difference in the application degree of digitalization and intelligence among the elderly, which leads to the information gap, which is the embodiment of the digital gap.

The digital divide already exists, but the outbreak of COVID-19 has made the distress of the elderly population needing to adapt to digitalization and intelligence infinitely

larger. COVID-19 has affected people's way of life and production to a certain extent, and also aggravated the occurrence of digital divide. Because the elderly cannot register health codes, scan codes for rides, make online payments, make online appointments, and use mobile phones and other smart devices to obtain the latest epidemic prevention and control trends, it is difficult for them to adapt to the universal intelligent life during the epidemic, and they often fall into difficulties. According to the latest Statistics Report on Internet Development in China, as of December 2020, the number of Chinese netizens has reached 989 million, of which only 11.2% is aged 60 and above. There are still many elderly people at a loss for solutions to digital and intelligent devices. With the further arrival of population aging, the elderly group has become the "vulnerable group" and "marginal group" of digital life. How to cross the digital divide is worth our in-depth discussion.

2 The Status Quo of Digital Divide Among the Elderly

The digital age is characterized by the application of information technology and Internet technology to all parts of life. People's Daily life can be realized through digital technology, and People's Daily needs can be met through the Internet, which brings great convenience to people. However, the elderly, who are vulnerable and limited by knowledge and ideas, find it difficult to adapt to the digital life and have less control over the life full of technology [3]. For example, older people are more likely to be victims of online fraud; Taste the social phenomenon that the elderly cannot handle social security because they cannot use smart devices such as mobile phones; In the process of online political inquiry, old people often lose their voice. During the epidemic, elderly people are unable to register for a health code or scan a mobile phone code to take a bus, forcing them to go out less frequently [4].

Today, with the highly developed Internet, more and more people are joining the wave of The Internet and enjoying the convenience brought by the Internet and digitalization. The COVID-19 outbreak has accelerated the digitization process for everyone, including older age groups. Before the outbreak, the elderly do not access the Internet may not be any problem, but the disease background for the elderly must adapt to the digital life, access to the Internet, to promote the elderly into the digital wave, which makes the problem of the digital divide is exposed more obvious, we need to pay attention to the elderly digital survival ability further.

3 Analysis of the Causes of the Digital Divide Among the Elderly

3.1 Intelligence of Modern Social Life

The intelligitization of modern social life is the root cause of the digital divide among the elderly. With the advancement of technology and the popularization of data, our life has changed greatly. Scanning code payment has become the main medium of daily transactions instead of cash. Medical appointments can also be made online instead of queuing at the hospital. Tickets can also be purchased for travel through mobile apps. The rapidly developing society is gradually isolating the elderly who are far away from

digital technology through digital technology, making them “marginalized” and become “digital refugees” [5]. A huge gap has been drawn between older people and society in the common life scenes and areas of older people.

Because the elderly’s own economic conditions and restricted by factors such as education level, makes itself in the digital age is in the midst of a weak old people kill time, some old people are not even connected wireless network, the home of intelligent equipment such as computers, smartphones, tablets, penetration rate is very low in the elderly.

3.2 Cost and Economic Development

Cost and economic development are the primary reasons for the digital divide among the elderly. The primary reason for the digital divide among the elderly is cost. The urban elderly, who mostly live on pensions and pensions, have strict budgets for every expense and tend not to spend much on digital devices. In addition, economic development in some rural areas is relatively backward and Internet penetration rate is low, so it is more difficult for the elderly to use digital devices, and there is almost no phenomenon of using online functions to replace offline functions, which also increases the difference of the digital divide. Computer ownership and Internet use among the elderly are among the lowest among all age groups, according to online data.

3.3 Attitude and Cognition of the Elderly Group

The elderly’s use of digital technology is influenced by their social experience and social environment, which together form their attitudes and views towards digitalization [6]. Old people tend to be conservative in thinking and behavior, and generally adopt a wait-and-see attitude towards new things. Affected by their passive information reception habits, digital devices still passively receive information like traditional devices, and refuse online social interaction.

However, the lack of perception of the usefulness and ease of use of technology, insufficient understanding of the socio-cultural significance of social media and stereotype of new media further affect the acceptance of social media technology in the elderly.

At the beginning of this century, as people just got in touch with the Internet, online games attracted the attention of teenagers. Coupled with the lack of relevant supervision and regulatory system, many teenagers were addicted to the Internet, which led to a series of social problems and the Internet was demonized for a time. In the eyes of parents, the Internet is the “culprit” that leads to children’s addiction, and the prejudice against the Internet remains until old age [7]. That part of the elderly group’s impression of the Internet and other digital devices stays on the disadvantages of digitalization, and the traditional impression and concept are deeply rooted, completely ignoring the convenience and benefits that digital devices bring to people’s lives.

3.4 The Product is not Suitable for Aging, and It is Difficult to Meet the Elderly Group

In the context of aging and digitalization, a large number of digital products emerge in the Internet market, but these digital products are not suitable for the elderly group,

the degree of aging is insufficient. There are two main reasons why digital products are not suitable for aging. One is that the elderly themselves do not participate in the digital society to a large extent and have less demand for digital products. In addition, the elderly group has limited ability to learn new knowledge and cognitive ability, lack motivation to learn new technologies, and lack of ideological change [8]. They believe that new technologies have nothing to do with them, which leads to the shortage of products suitable for aging in the Internet market. Second, digital technology developers and product delivery personnel do not realize that the elderly are vulnerable groups in the digital society and ignore their consumer needs, so they do not take into account the special needs of the elderly, which also inhibits their consumer needs to a certain extent.

4 Countermeasures to Reduce the Digital Divide Among the Elderly

The problems caused by the restriction of digital divide on the elderly cannot be ignored. Therefore, the government, society and family should work together to strengthen digital security, launch products suitable for aging, actively implement digital feedback, encourage the elderly to take the initiative to participate in the digital economy, expand the consumption of digital products, and popularize digital well-being to the whole society.

4.1 Government Level

The government should promote digital and intelligent social governance, consciously follow the purpose of serving the people and the people as masters of their own affairs, and play a key role in narrowing the digital divide among the elderly. The combination of online and offline governance can be adopted.

Online, the government can cooperate with major media to broadcast public service advertisements related to the digital divide among the elderly. At the same time, the government can also formulate relevant systems and policies, requiring enterprises to release age-appropriate apps on the market, establish age-appropriate websites or websites and apps, and provide communication and display platforms for the elderly to participate in the digital society [9]. Offline, the government should strengthen social security, provide more digital education resources for the elderly and encourage them to consume digitally.

The government should improve the social security system. The government should actively coordinate the urban and rural social security system for the elderly, improve the social assistance system for the elderly, and promote the integrated development of urban and rural elderly groups. Improve the medical insurance system and endowment insurance system for the elderly to ensure that the elderly have the ability to purchase digital equipment and participate in digital activities. The government also needs to strengthen its oversight of the online environment. The elderly lack of Internet knowledge reserve, discrimination ability, prevention awareness is not strong, credulous network rumors, false advertising, easy to fall into the network trap, suffer from network fraud. Therefore, the government needs to strengthen network supervision, crack down on network fraud

and illegal acts infringing on others' information security, introduce corresponding systems to ensure the safe participation of the elderly in the digital economy, and establish a long-term mechanism to solve the problem of digital divide.

4.2 Social Aspects

Society should pay full attention to the special needs of the elderly group, launch digital products suitable for aging, and improve the special after-sales service for the elderly. Deeply grasp the needs of the elderly, collect and analyze the needs of the elderly on the functions and services of digital products, and develop digital products suitable for the elderly.

In China, the number of non-internet users in rural areas is very large. Compared with the growth of the number of Internet users, we need to pay more attention to the group of non-internet users. The reason why non-internet users do not access the Internet is mainly due to the lack of equipment, the lack of using skills and the limitation of educational level [10]. Increasing the construction of infrastructure in the field of communication can enable the elderly in remote areas and rural areas to enjoy the convenience of the Internet, better integrate into the digital society and narrow the digital divide.

4.3 Family Level

We should advocate and implement the concept of "education feedback" to the society, so that the elderly can improve their ability to use intelligent equipment by learning the application of digital equipment and intelligent technology from their children and their offspring [11]. Children's education feedback is the most important way to help the elderly to adapt to the digital society. Communication with the elderly should be strengthened and digital technical support should be given to the elderly [1]. Children should patiently teach the elderly parents how to use the Internet and provide strong support for the elderly to integrate into the digital society.

Communication with peers is vital, not just children. The communication between the elderly is more efficient in their understanding of digital devices and the Internet [13]. Friends or neighbors, especially peer groups, can provide more direct use experience for the elderly, and learning from each other can be more conducive to communication.

5 Conclusion

The aged group is a group that cannot be ignored in the society, and the digital divide of the aged has become a big social problem. Narrowing the digital divide can make the aging society adapt to the digital age, and promote the elderly groups at the edge of the society to integrate into the current society and the digital age. We should actively narrow the digital divide between the elderly and promote the elderly to adapt to digital life from the government, society and family.

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