Digital Literacy of the "Silver-haired" Group
Xiao Chen*, Xiangping Zhang
School of Languages & Media, Anhui University of Finance and Economics, Bengbu, 233031, China

Abstract
In the era of digitalization and aging in parallel, the problem of improving the digital literacy of "silver-haired groups" needs to be solved urgently. The outline of the "14th Five-Year Plan" proposes to strengthen the education and training of digital skills for the whole people and as a "digital refugee", the "silver-haired group" has a great demand for media use in terms of as a "digital refugee", the "silver-haired group" has a great demand for media use in terms of emotion, social, entertainment, and life consumption, but the widening of the "digital divide" makes the "silver-haired group" face multiple difficulties to this end, the state promotes the policy of "active aging", guides the "silver-haired group" to actively use digital technology, adapt to digital culture, and use new media empowerment to better achieve social participation. This paper attempts to break the dilemma of "digital survival" by carrying out digital education, developing content suitable for the elderly, strengthening media guidance, and carrying out "digital feeding" from the perspective of multiple social subjects such as the government, new media and traditional media. The study also expect to explore the path of digital literacy improvement of "silver-haired groups" in the digital age.

Keywords
"Silver-haired Groups"; Digital Literacy; Digital Divide.

1. Connotation of Digital Literacy
Regarding the specific connotation of digital literacy, it has been defined by domestic and international scholars.
From the studies of foreign scholars, Israeli scholars firstly proposed that digital literacy consists of five main components, and the overall digital literacy framework includes image literacy, re-creation literacy, branching literacy, information literacy, and socio-emotional literacy. In 1997, Paul Gilster formally introduced the term "digital literacy" in his book "Digital Literacy". In addition, UNESCO and the European Commission have defined the concept of digital literacy from a technical perspective, considering digital literacy as the skills of finding and retrieving digital information, organizing, managing and understanding digital information. Domestic scholars have also analyzed the concept of digital literacy. Wang Youmei and other scholars believe that digital literacy is an integrated, dynamic and open concept, which is formed through the flux of media literacy, computer literacy, information literacy and network literacy. Shi Ge, deputy editor-in-chief of People’s Education Publishing House, believes that digital literacy is a basic ability and attitude that every citizen in today’s society must have in daily life, and it is a continuation and deepening of information literacy, scientific literacy and media literacy. Li Degang believes that digital literacy is the ability to recognize, critique and interact with digital content, multimedia language and digital media using digital technology tools in the digital environment.

From the research of domestic and foreign scholars, digital literacy is a kind of ability, which is a survival skill that everyone needs to master in the digital era. With the development of digital technology, experts and scholars in various fields are fully aware of the importance of digital
literacy, but from the results of current research, most of them focus on young people as "digital natives" or middle-aged people as "digital immigrants. However, from the current research results, most of the experts and scholars focus on the young people as "digital natives" or the middle-aged group as "digital immigrants", while the old people as "digital refugees" are regarded as marginalized. However, it cannot be ignored that, compared with young people and middle-aged people, it is more difficult for the elderly to integrate digitally, so it is more necessary for all sectors of society to give humanistic care, so that the "silver-haired group" can improve digital literacy and share digital life.

2. The Digital Needs of the "Silver-Haired Group" in the Digital Age

2.1. Information Needs Drive the "Silver-Haired Group" into Intelligent Life

As the global digitization process continues to deepen, the information dissemination channels also show diversified characteristics. In the traditional media era, the information access channels of the "silver-haired group" are mainly the three major mass media: newspapers, radio and TV. As readers of newspapers, listeners of radio and viewers of TV, these three identities are sufficient for the "silver-haired group" to obtain all kinds of information they need. In the digital age, the rapid development of new media has had a huge impact on the paper media, with a large number of newspapers closing down or switching to online sales. Radio and television have also undergone digital reform and joined the Internet camp, and artificial intelligence has penetrated into all aspects of daily life. The rich information resources in electronic newspapers, digital TV and other smart media make it possible to meet the diversified information needs of the "silver-haired group". Especially, health information of medical and recreation has become the focus of the "silver-haired group".

2.2. Life Needs Drive the "Silver-Haired Group" to Online Platforms

The development of digital technology has pushed the popularity of mobile payment and other functions, and all daily consumption can be done online through mobile terminals. The offline consumption in various fields is developing online market, and online consumption is gradually becoming the mainstream of life consumption, using the Internet to solve problems has become the trend of social development and essential life skills. In order to keep up with the social trend and meet the needs of life consumption, the "silver-haired group" has gradually come into contact with major online platforms. According to the survey, the middle-aged and elderly people tend to choose the APPs that can meet their basic life services when using online platforms, such as Taobao, Jingdong and DiDi, which can meet the basic life service needs of the middle-aged and elderly people to the greatest extent.

2.3. Entertainment Needs Inspire the "Silver-Haired Group" to Embrace Social Media

In addition to the demand for information and consumption, the demand for entertainment is also an important motivation for the "silver-haired group" to integrate into the digital era. Many elderly people have become "empty nesters" because their children are busy at work and have limited time to spend with their parents at home. Living alone for a long time makes the "silver-haired group" feel lonely, and many seniors have joined the social media camp in order to have more interpersonal interaction and entertainment experiences. There are two main types of social media used by the elderly, one is the inward-oriented social networking represented by WeChat. In WeChat social networking, seniors mainly engage in daily chats and video calls with their children and friends. This kind of social relationship is generally an extension of real social relationship in cyberspace. In addition, new media APPs such as Tiktok and AAuto are representatives of outward socialization of older adults using social media. In the in-depth interview, one of the interviewees said that the threshold of using Tiktok APP is low, and
publishing works can be done in a "foolproof" way. According to the video template that comes with the app, you can produce and publish content with the material you shoot, and then send your work to your friends publicly or privately. When they see their work being liked, commented on or retweeted, they will feel their value and popularity among the crowd, which in turn will motivate them to produce and publish more similar content. In the use of social media, the entertainment needs of the "silver-haired group" are satisfied to a certain extent.

3. The Digital Dilemma of the "Silver-haired Group" in the Digital Era

Although in the digital era, the information, consumption and entertainment needs of the "silver-haired group" have prompted them to adapt to digital life. However, compared with the "digital indigenous" young people who were born with the Internet and the "digital immigrants" middle-aged people who caught the express train of the digital era, the "silver-haired group" as the "digital refugees" who are the marginalized people of the Internet society still face many problems in the process of digital survival. The "silver-haired group" is still facing a lot of difficulties in the process of digital survival.

3.1. Access to Information: "Technical Violence" to Erect Access Barriers

According to an article published by First Financial Research Institute's Vice President Lin Chunjie and First Financial Daily's Deputy Editor-in-Chief Yang Yanqing, due to the development of technology, human beings are moving from the era of "power violence" to the era of "technological violence". As we enter the digital age, technology is advancing rapidly, but it is not easy for the "silver-haired group" to adapt to the new technology. Since the outbreak of the new epidemic, residents have been required to flash their "health codes" when traveling, to show their "trip records" when traveling to and from places, and to register online for medical appointments in order to reduce human contact. "The high-tech application scenarios, such as "elevator intelligent voice system", are promoting the rapid development of digital life. However, because the "silver-haired group" is less educated or does not know how to use smartphones, they suffer from "technological violence" and are isolated from the digital world, which brings a lot of inconvenience to their daily lives. For example, on August 4, 2021, two elderly people in Wuhan, Hubei province, were refused a ride on a bus after a hospital visit because their phone could not display a health code. Similar cases like this are common after the outbreak of Newcastle Pneumonia. In addition, due to the persistence and recurrence of the Newcastle Pneumonia outbreak, government departments around the world have launched online business processing, which on the one hand reduces the risk of virus transmission, but on the other hand puts the "silver-haired group" on the other side of the digital divide.

In the daily information acquisition, because the "silver-haired group" is a generation that lives with the three-mass media of newspapers, radio and TV, the elderly group has long grown up in the trust of mainstream media such as TV, newspapers and radio, which has cultivated their media habits of trusting media content more easily. Therefore, in the digital era, traditional media is still the main channel for this group to obtain information.

3.2. Information Use: "Content Adaptation" Ignores Group Needs

In terms of information use, the information needs of the "silver-haired group" are different from those of the young people who are "digital natives". As the "silver-haired group" ages, their cognitive ability decreases, their hand-eye coordination decreases, and their acceptance of new technologies is slow, all of which are important factors that prevent them from accepting digital products. However, due to the profit-seeking nature of enterprises, when designing digital products, manufacturers often set complicated information in the user interface, including some undesirable advertisements, with the concept of "maximizing profit", causing the elderly to fall into the consumer trap by mistake.
In addition, the new digital media tend to treat the "silver-haired group" as a marginal audience for profit-making purposes when distributing content, and pay less attention to professional age-appropriate content, which makes the "silver-haired group" resistant to the new media. The inadequacy of "content adaptation" of digital media is reflected in the lack of specialized channels and programs suitable for "silver-haired" users. The lack of specialized age-appropriate content makes the "silver-haired group" lose their trust in new media and choose to turn to traditional media that meet the habits of this group and continue to return to the "safe zone". The "old-age" group has lost trust in the new media and has chosen to turn to the traditional media, which is in line with the habits of this group.

3.3. Information Criticism: "Information Explosion" Mixes Good and Bad Content

In the digital era, with the popularization of network technology and mobile media, the speed of information dissemination is accelerated, the communicators are diversified, and the communication methods are generalized, and the phenomenon of "information explosion" emerges. The "information explosion" presents a state of diversified information transmission and explosive growth of information quantity, which makes people lost in this information maze and difficult to distinguish its authenticity and usefulness. At the same time, media literacy emphasizes people’s ability to select and comprehend information from the media, but also their ability to question, evaluate, create and produce, and respond to the content they receive with discernment. The "silver-haired group" is constrained by their education, economic level, and physical condition, and they lack digital literacy in terms of their ability to evaluate and criticize the information they receive, their ability to access information, and their awareness of online safety.

4. Digital Inclusion of "Silver-haired Groups" in the Digital Age

4.1. Digital Education: Breaking the Technology Barrier

The basic focus of the digital inclusion of the "silver-haired group" is on education. Most of the digital products currently on the market have set technical barriers at the operation level in order to reflect the diversity of product functions. Take digital TV and smart home as examples, various intelligent operation methods discourage the "silver-haired group". Therefore, digital education for the "silver-haired group" is an important issue that needs to be solved.

In terms of top-level design, government departments should first do a good job of policy underwriting and formulate corresponding education policies to promote the access of the "silver-haired group" to digital education. For example, in order to implement the notice of the general office of the state council on the implementation plan to effectively solve the difficulties of the elderly in using smart technology, Hainan Province has issued the Action Plan of Hainan Province on Effectively Solving the Difficulties of the Elderly in Using Smart Technology (2021-2022), which targets the special "migratory bird elderly" in the province, organizing migratory bird volunteer groups to carry out education and training on the use of smart technology for them. Policy support is an important foundation for the development of digital education.

In terms of concrete implementation, various groups in society should form a synergy. As participants and builders of the digital society, schools, enterprises and individuals should assume corresponding social responsibilities to promote the faster integration of disadvantaged groups into digital life. As an important component unit of social life, the community has strong aggregation, wide coverage and obvious advantages of convenience, and is an important position for digital education. Taking the community as the unit, with the elderly groups in each community as the main target, basic digital knowledge as the content, and practicality as the basic goal, relying on the public infrastructure of the community, schools,
related enterprises and individuals can use their free time to sink digital education into the community and carry out community digital knowledge training. At the same time, communities, village committees and other grass-roots organizations can also hold public welfare activities such as smartphone training classes for the elderly and lectures on the topic of sweeping codes, so as to solve the problem that "silver-haired groups" do not know how to use and are not taught, and drive "silver-haired groups" to embrace digital life and enjoy the dividends of technology.

4.2. Content Adaptation: Meeting the Needs of "Silver Hair"

After crossing the basic usage issues, how to let the "silver-haired group" get the information they are interested in and meet various needs in their digital life becomes another goal to improve the digital literacy of this group. In the digital era, the exponential growth of information and the rapid increase of communication speed have brought about the "information explosion". The "indigenous Internet users" are shuttling between various platforms to get all kinds of information. But the "silver-haired group" has difficulty in finding the right content for themselves, and they are in a dilemma. In any field, the rule of "content is king" is followed. Before helping the "silver-haired group" to improve their information discernment, we must first ensure that they have access to content suitable for them. Therefore, the production of "silver-haired content" should reflect psychological care and spiritual care.

At the content level, it is necessary to deliver positive messages to the "silver-haired group", in line with the development of the times, and advocate a healthy concept of life. Taking into account the national situation that "empty nesters" make up an important part of the elderly group, we should introduce suitable products and contents according to the psychological characteristics of this group, which are loneliness and lack of companionship and communication. For example, the "silver-haired group" has a strong desire to talk and express themselves, so some new media platforms can fully explore the interests of the "silver-haired group" and strengthen the platform's interactive and communication functions. Some new media platforms can fully explore topics of interest to the "silver-haired group" and strengthen the platform's interaction and communication functions. The program will also strengthen their social participation and promote their deeper understanding and recognition of national policies.

In terms of communication methods, all kinds of media should adapt to the physiological needs, psychological needs, life needs and social needs of the "silver-haired group". They should use simple, straightforward and vivid language, and combine graphics and text, short video and voice broadcast to meet the reading habits of the elderly, so that the group can accept and interpret the communication content more clearly and deeply. For example, in January 2021, Shanghai "Sui Shen Office" App launched a "special edition for the elderly", putting the four most commonly used sections for the elderly - Sui Shen code, medical care, subway, public transportation - in the same interface. The four most commonly used sections for the elderly - the "Sui Shen Code", "Medical", "Subway" and "Public" - are placed in the same interface, and the display font is enlarged to facilitate travel for the elderly. Huawei has also developed the P series of cell phone products for the middle-aged and elderly, adapting them to their needs in terms of cell phone screen, function priority and price setting.

4.3. "Digital Feedback": Crossing the Generational Divide

Family "digital feedback" are an effective form of bridging the "digital divide" of the silver-haired group. In the process of improving digital literacy of the "silver-haired group", intergenerational support plays a crucial role. First of all, as "digital natives", the young generation was born with the digital era, mastering a large number of digital technologies, reaching a certain level of understanding and application of all kinds of digital life, and having more online discourse. Secondly, as immediate family members, they have more opportunities
to directly contact with the "silver-haired group" in daily life, and they are more aware of the various digital needs of this group, so they are more targeted and have better integration effect when they carry out "digital feeding". In the process of improving the digital literacy of the "silver-haired group", young children should not only play the role of the provider of new devices, but also spend more time and energy on the use of various digital devices, and try their best to help the "silver-haired group" strengthen their connection and communication with the digital society through devices and technology. It is also important to help the "silver-haired group" to strengthen their connection and communication with the digital society through devices and technology, and to enhance their sense of social participation and well-being.

It should be noted that in the exposure to and use of media technology, the "silver-haired group" also faces the dilemma of information differentiation in their participation in digital life. Even the "digital natives" can hardly guarantee that they can obtain useful information accurately and efficiently, and the "silver-haired group" in the initial stage of digital life participation is even more confused in the face of all kinds of information. This requires the young generation to focus on teaching common information recognition and falsification skills to prevent the "silver-haired group" from falling into the trap of false information and unscrupulous elements.

### 4.4. Mindset Shift: Eliminating "Fear of Numbers"

The existence of "digital fear" is one of the major reasons why the "silver-haired group" is reluctant to access and use digital technology. High technology, high difficulty and high cost become the stereotype of digital society and digital products for the "silver-haired group". It is the solidified perception of digital society that makes the "silver-haired group" isolate themselves from the digital era at the psychological level, and their lack of existence, sense of belonging and sense of insecurity become the outstanding characteristics of this group in the digital society. To enhance the digital literacy of the "silver-haired group", eliminate the "digital fear" and change their mentality becomes an important part.

"A disease of the heart requires a cure of the heart". To overcome "digital fear", we should start from the psychology of the "silver-haired group", enhance the group's sense of identity, participation and satisfaction in the digital society, and cultivate the willingness of the elderly to learn actively. According to the "use-satisfaction" theory, audiences are motivated by media exposure because the exposure satisfies their needs. With the advent of the digital age, traditional offline social interaction has gradually given way to online virtual social interaction, and the motivation for new media exposure among the elderly is largely to satisfy social needs.

Therefore, only by further stimulating and satisfying the various needs of the "silver-haired group", can we further strengthen the "dividends" brought by the new media to the "silver-haired group' and promote the group's subjective willingness to integrate into the digital society. Therefore, only by further stimulating and satisfying the various needs of the "silver-haired group", further strengthening the "dividends" brought by new media to the "silver-haired group", and promoting the subjective willingness of this group to integrate into the digital society, can we better overcome and eliminate the "fear of technology" of the "silver-haired group", so that the "silver-haired group" can actively embrace digital life.

### 5. Conclusion

In the era of digitalization and aging, how to smoothly connect the "silver-haired group" with the digital society is a topic that needs urgent attention in the new era of China. It is believed that with the joint efforts of the government, various media, youth groups and other social actors, through digital education, development of age-friendly content, strengthening media guidance and "digital feedback", we can definitely break the "digital survival" dilemma of the elderly group and improve the "silver-haired group’s” digital survival. "Through the joint efforts of various media, youth groups and other social actors, such as digital education, elderly-
friendly content development, media guidance and digital feedback, the digital survival dilemma of the elderly will be solved, the digital literacy of the "silver-haired group" will be improved, the light of technology will shine on every group and the digital dividend will be shared by the whole society.

References


