International Journal of Multidisciplinary Research and Publications
ISSN (Online): 2581-6187

Analysis on the Adaptability of Smart Media to Aging from the Perspective of Aging Governance

Xu Chenfan[1], Liu Feng[2]
[1]School of Journalism and Communication, Shanghai University, Shanghai, People's Republic of China
[2](Corresponding author) School of Journalism and Communication, Shanghai University, Shanghai, People's Republic of China
Email address: panda197@163.com

***Abstract*—** *With the development of artificial intelligence and the aggravation of the aging of our society, the intelligent degree of the media has been continuously improved. The concept of intelligent media has been put forward and continuously applied to the lives of the elderly groups, gradually realizing the adaptation of intelligent media to aging. From the perspective of the aging trend of smart media, its role in aging governance, existing problems and implementable measures, this paper studies the interactive relationship between smart media and the elderly group, as well as the current aging suitability problems in smart governance, and puts forward constructive suggestions for solving the digital divide of the elderly.*

***Keywords*—** *Aging, aging suitability, smart media, digital gap.*

I. INTRODUCTION

With the continuous development of society, the degree of aging in China is also deepening. According to relevant statistics, China's population over 60 years old has reached 241million. It is estimated that this population will reach a peak of 487million in 2050, accounting for 34. 5% of the total population 9%。 At present, with the continuous development of mobile Internet, big data, artificial intelligence, human-computer interaction and other new technologies, we are gradually entering the era of "everything is a medium", that is, based on the digital multimedia foundation, through the intelligent integration of intelligent machines, intelligent objects and people, we can achieve users' intelligent acquisition and matching of media information. With the aggravation of aging in China, the large group of the elderly has also joined the wave of smart media. In the future, they will even become a key driving force. However, in the process of development, due to the decline of their own cognitive level and acceptance barriers, the elderly have to face the problem of "digital divide". For example, under the epidemic prevention and control, many elderly people are unable to pass because they cannot use health codes. In recent years, the state and enterprises have begun to pay attention to the elderly group, gradually adding the theme of "suitability for the elderly" to the smart media, promulgating relevant policies and improving the relevant technical level, so as to achieve the matching between the supply and demand of the intelligent development of the media and the aging process of the population.

1."Aging" trend of intelligent governance

Intelligent governance refers to the public governance activities carried out by using intelligent technologies, including intelligent production, medical treatment, government, city, etc., while intelligent technologies mainly refer to the latest technologies such as the Internet of things, big data, artificial intelligence, etc. Intelligent governance will greatly promote the improvement of social productivity and production efficiency, and will also comprehensively enhance the intelligence of social life. Due to the continuous decline of the physical function of the elderly, their brain reaction speed and actual operation speed are relatively slow, and there are many inconveniences in life. The use of intelligent technology can be integrated into all aspects of the life of the elderly group to achieve accurate governance of aging. In terms of aging suitability, intelligent governance mainly presents the following characteristics to enhance the intelligence of aging governance.

1.1 Mutual integration

In terms of aging governance, intelligent governance has realized the mutual integration with artificial intelligence, big data, virtual interaction and other intelligent technologies, forming a common governance agent. Intelligent governance has a wide range of applications, plays a role in many industries and fields, and integrates into all aspects of society. In the field of aging services, we can often see the presence of new generation information technologies such as big data, artificial intelligence, blockchain and 5g communication. For example, in the prevention and control of the new type of coronary pneumonia, "intelligent medicine" has been widely used. Intelligent service robots, intelligent nursing beds and other technologies have been continuously applied to the medical treatment and telemedicine of the elderly, which has further improved the digitalization and intelligence of intelligent medicine for the elderly. At the same time, "smart home" is also developing. The Civil Affairs Bureau of Tianjin Heping District has launched "smart + product" services for the elderly over 60 years old, empty nesters, unable to live a normal life, and promoted the implementation of smart elderly care services. It installs a five piece smart device of "home guard" for special elderly groups free of charge, so as to carry out real-time monitoring on the elderly at home. Once the device detects dangerous data, it will automatically call the police, and realize accurate positioning through electronic map, so as to dispatch service personnel nearby to go to the door to provide help. The integrated use of intelligent technologies can effectively improve the aging adaptability of intelligent governance, improve the quality of elderly care services, and create a convenient and intelligent healthy elderly care lifestyle.

Xu Chenfan and Liu Feng, "Analysis on the Adaptability of Smart Media to Aging from the Perspective of Aging Governance," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 5, Issue 1, pp. 4-8, 2022.

1.2 Category richness

At present, many media have paid attention to the elderly group and the "digital divide" faced by the elderly group. They are trying to develop apps suitable for the elderly to help them catch the fast train of new media and integrate into the new media society as soon as possible. The types of these apps are very rich, covering all aspects. They are mainly divided into seven categories: health care, news and information, simplified operation, advertising and shopping, lifelong learning, interest and leisure, and social interaction. Different types of apps also meet the needs of the elderly in different aspects. For example, due to their own physical and psychological characteristics, the elderly pay close attention to topics such as eating health after entering the old life. Therefore, health care and healthcare apps are particularly popular; Social apps for the elderly can help the elderly break the limitations of time and space, provide spiritual companionship, help them alleviate loneliness, and share and communicate emotions anytime, anywhere; Lifelong learning apps can help the elderly learn skills, increase knowledge, provide rich learning resources, and open the era of online classes.

1.3 Close to the needs of the elderly

The "digital divide" among the elderly is mainly caused by the following three obstacles: the cognitive impairment of the elderly, that is, the decline of vision and memory; Tool obstacles, i.e. the smart media icon cannot be recognized and the font is too small; Receptive disorder, that is, the elderly do not use or refuse to use smart media. Among the above three obstacles, instrumental obstacles can be alleviated or even eliminated to solve the problems of cognitive obstacles and receptive obstacles. At present, many media have launched "old app". The biggest difference is that the screen is simple and the font is large; Alipay has also developed the "Alipay search care version" for the elderly. The main feature is that after the elderly enter the interface, all fonts are enlarged, which is more convenient for the elderly to read. The program also puts the functions commonly used by the elderly on the home page interface, such as mobile phone recharge, taxi, online shopping, etc.; Since 2016, Didi has optimized the platform interface in combination with market conditions and social needs, and launched service functions such as "car Hailing", "care mode" and "payment by relatives and friends". At the same time, considering that some elderly people are not familiar with mobile phone operation, Didi company has also developed a car Hailing service through their relatives and friends. App developers have truly taken the "old" as the foundation, started from the standpoint of elderly users, approached the actual needs of the elderly, and widely improved the social adaptability and self-development ability of the elderly.

After the elderly group entered the old age stage, their self-reliance, learning and social skills decreased significantly, accompanied by the slow down of information receiving speed and understanding ability, and the lack of children's company, the phenomenon of "empty nest" also increased. At present, the elderly service in the community is not very perfect, which can not meet the needs of the elderly in an all-round way, and the inability to interact with the outside world in time also makes the elderly group very prone to loneliness, which leads to a series of physical and even mental health problems. The application of the adaptability of smart media can help the elderly group solve the above problems to a certain extent, and create opportunities for changing the lifestyle of the elderly group and helping them return to the mainstream society.

II. The Role of Smart Media in Aging Governance

2.1 Address security issues

Accidental fall? Forget to turn off the gas when you go out? Lost? These are problems that the elderly are very likely to encounter. Not only the elderly living alone, but also the elderly living with their children cannot be taken care of all day. How to solve such problems, smart media has played a big role. During the two sessions this year, "smart elderly care" became a hot topic, that is, through emerging technologies such as big data and the Internet of things, the original elderly care methods were connected in series with intelligent products to provide intelligent elderly care services. For example, new technology devices such as fall down radar, intelligent mattress, watch type GPS locator and safety knowledge popular science app are black technologies in smart elderly care applications, which fully ensure the daily safety of the elderly through technical monitoring such as algorithms. The intelligent elderly care equipment can not only monitor the safety status of the elderly in real time, but also judge their physical health status, which can not only effectively prevent the risk of falls and losses of the elderly, but also obtain their health records and customize personalized health management plans for a period of time. The application of smart media not only provides life care and nursing care for the elderly, but also makes the home of the elderly more safe and convenient through specific scientific and technological means of smart elderly care.

2.2 Help the elderly integrate into internet life

Although with the increase of age, the elderly group's acceptance rate of new media is getting lower and lower, but their inner acceptance is still very high. They are eager to contact new things through smart media, cross the digital divide, and obtain the information, services and help they need. For the elderly, they prefer the audio transmission mode, because the audio threshold is low and real-time interaction can be realized. Siri, Xiaodu and other voice robots make the human-computer interaction enter the voice interaction stage, which can quickly improve the cognitive level of the elderly and speed up the integration of the elderly into the Internet life. At the same time, many software developers have also launched simplified operation version of the elderly app. Due to the weakening of physical function and the decline of learning adaptability, the elderly have many inconveniences in using the app. Therefore, they need simplified operation app to let them skillfully operate smart phones and better integrate into Internet life. For example, today's headlines, Tencent News, Baidu and other platforms have developed exclusive apps for the elderly, which not only enlarge the font, but also add voice search and voice broadcast functions to solve the problem of inconvenient typing in the coming year. However, the caring app launched by Alipay, Gaode map and other platforms facilitates the operation and use of the elderly, facilitates their life and travel,

Xu Chenfan and Liu Feng, "Analysis on the Adaptability of Smart Media to Aging from the Perspective of Aging Governance," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 5, Issue 1, pp. 4-8, 2022.

saves them from bothering their children, and improves their self-worth and sense of social belonging.

2.3 Helping the elderly achieve emotional care

Compared with other groups, the elderly have stronger emotional needs due to retirement at home. They are eager to accompany and create a circle of friends, interact with family, friends and even strangers, and improve their sense of self-existence and social value. Wechat, Tiktok, Kwai and other apps provide them with new ways to socialize. They can express their thoughts and forward social news in the circle of friends, and they can also publish their own videos on the Tiktok Kwai platform. When these contents are praised and commented, they will feel their own value and popularity, thus encouraging them to create and publish more similar content; The elderly companion robot is also another intelligent exploration to meet the emotional companionship of the elderly. An entertainment robot named zhuola, launched in the Netherlands, helps the elderly do physical exercises with the appearance of a lively and lovely little girl through anthropomorphic actions and expressions such as blinking, eye contact, nodding and shaking head. At the same time, it can also sing, dance, chat, etc., which can greatly meet the emotional needs and self realization needs of the elderly, so that they can find fun and a sense of existence in the process of interactive participation.

However, the aging governance of smart media is not plain sailing. Some device media did not fully consider the needs of the elderly in the development process, and did not really reflect the user thinking from the standpoint of the elderly group. For example, the elderly companion robot is only a simple reply command and does not have the ability of value judgment; Some apps simply enlarge the interface font, but there are still problems such as complex operation and more advertising. Next, the author will combine specific cases to analyze the problems existing in the aging adaptability of smart media.

III. Problems in "Aging Adaptability" of Smart Media

3.1 Less intelligent

At present, aging smart media is still in its infancy, and its information integration, analysis, open sharing and other technologies are not mature. It is unstable in the process of practical application, and it is often difficult to play a role. At the same time, the current device form is relatively single, and there are few types, which are only limited to smart wearable devices, smart homes and medical treatment. The common ones are smart phones and smart bracelets, Unable to meet the diversified and personalized needs of the elderly. In terms of product design, most of the product operation steps and use processes are complex, and the size of the instruction manual is too small, which does not fully consider the physical and mental conditions and use scenarios of the elderly, which eventually increases the reading and use difficulties of the elderly and makes the elderly feel afraid of difficulties. However, the data processing capacity of information and the development speed of intelligent devices often lag behind the development of elderly care services, unable to achieve accurate docking with elderly care services, and difficult to meet the actual needs of the elderly. In the future, the age characteristics of the elderly should be fully considered in the design, the operation steps and use processes should be simplified, and subtraction should be made in the shape design to help the elderly quickly master the use skills and methods. At the same time, further improve the data analysis and processing capacity, and create smart elderly care products.

3.2 Lack of humanization

After downloading several old-age apps, the author found that these apps only perform simple font enlargement, but there are still some problems, such as hidden entrance, complex operation, and many advertisements. At the same time, many apps are too commercial, with problems such as information flooding and useless, induced downloading and induced payment, and cumbersome ad closing processes, which have seriously affected the use experience of the elderly. At the same time, due to the slow response speed of the elderly group, they are unable to identify false information in time. However, most apps simply copy the information from other platforms to the interface, without screening and screening, and have not launched a special elderly channel to publicize information such as fraud prevention, which makes the elderly easy to believe rumors and be cheated. For example, some platforms take advantage of the opportunity to adapt to aging to harvest elderly users. In addition to enlarging the font, the so-called "big font version" of some platforms is more to attract the elderly to indulge in it. For example, some apps have added small games such as 0 yuan for fruit, check-in for gold coins, and functions such as watching videos to earn gold coins and inviting friends to earn commissions. Others are full of a large number of advertisements. In essence, such "aging adaptation" transformation is to accurately "harvest" some elderly people by taking advantage of their psychology that they are easy to be greedy for small things, which is undoubtedly a dangerous deviation. In the new media era, although the elderly are relatively unfamiliar with new media technology, their willingness to accept it is still high. Through the survey, it is found that the elderly group basically hold a positive attitude towards the current elderly app, and their main voices are mainly concentrated in: the app has a single function and can not meet the diversified needs; Too much commercialization and too much junk information; The interface design lacks humanization and the operation guidance is not clear. In general, the app for the elderly should fully investigate the physical characteristics and psychological conditions of the elderly group, find a humanized technical design scheme, and break the technical barrier for the elderly to use the app.

3.3 Ethical risks

The application of intelligent media cannot completely replace manual services. Intelligent devices are rigid and indifferent, lack certain humanistic care and human temperature, and it is difficult to generate spiritual communication like interpersonal communication. For most of the elderly, the new technologies and services they receive are mostly passive, which means that the actual needs of the elderly may not be fundamentally improved, and the use of smart media will also cause some ethical risks. For example, the use of big

Xu Chenfan and Liu Feng, "Analysis on the Adaptability of Smart Media to Aging from the Perspective of Aging Governance," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 5, Issue 1, pp. 4-8, 2022.

data and artificial intelligence may bring the risk of information leakage to the elderly. At present, the management of personal information in China is extremely nonstandard, with inaccurate personal information and nonstandard statistical data modules. However, the elderly have poor awareness of information prevention, lack of awareness of the importance of personal information security, and lack of prevention. The risk of information leakage and even property loss is even more serious. The application of intelligent robot, intelligent medical technology and other technologies may expose the privacy of the elderly, and may also ignore the freedom, dignity and dignity of the elderly, resulting in ethical problems. For example, "machine errors" in the use of machines may pose a threat to the safety of the elderly. Therefore, the use of smart media in the future should be more humanized and pay attention to the leakage of privacy to meet the personalized needs of the elderly.

In order to improve the "suitability for the elderly", smart media needs to fully consider the physical characteristics, psychological needs, functional characteristics, social characteristics, etc. of the elderly. In all links, it should set up user thinking from the perspective of the elderly users, and fully investigate the psychological use expectations of the elderly, so as to truly take the elderly as the foundation and realize humanized design.

IV. Key Points for Strengthening the "Aging Adaptability" of Smart Media

4.1 Design products with "subtraction" thinking

With the gradual aging of the elderly body, the continuous decline of physical function and the continuous decline of memory, their cognitive function is also declining. These physiological changes make them feel lack of heart, and they are more eager to integrate into the society through intelligent media to realize their self-worth. Looking at the current aging app, it is only a simple and simplified operation, such as enlarging the font, but it should go further. Starting from the basic needs of the elderly, we should integrate the functions and resources targeted to provide more services for the elderly in a simpler way. In other words, relevant operations should be subtracted, but services should also be "added", so that intelligent technology can benefit the most elderly in the most friendly way. Developers should adhere to the three principles of friendliness, positivity and emotion when designing interfaces. Friendliness means that the interface design should be concise and clear, which can be seen clearly and operated friendly; Positivity means that the operation mode should be illustrated and have a sense of design. At the same time, the overall color of the interface is fresh and clear, and positive colors are selected to give users a relaxed and comfortable reading experience; Emotionalization means that the interface design should adopt a multi module mode to increase vitality, give users space to play, and add more comment plates to facilitate communication. In terms of interface design, meet these three requirements, add while subtracting, increase guidance in visual mode, associate page elements, improve service content, and facilitate the operation of elderly users

4.2 Adhere to professionalism and authority

Due to the blocking nature of the news, the elderly cannot identify the overwhelming news topics in time, and are easy to credulous to rumors. Therefore, for the policies and topics related to the elderly, the major aging apps and smart media need professional interpretation to show professional responsibility. First, interview relevant experts to interpret the latest document policies in popular language; Second, deeply understand the needs of the elderly group, effectively reflect the life and difficulties of the elderly, and strengthen reporting. At the same time, the "aging" channel should also be specially developed, such as popularizing new scientific and technological content, such as technical operation knowledge such as health code, and new things on the network, correcting common rumors, conducting fraud prevention publicity, popularizing new technical operations and new things, etc., segmenting audiences and accurately docking. We will also launch more original content, such as the special issue of the Chung Yeung Festival and the special edition of the commemoration day of the war of resistance against Japan, and make use of our own advantages to provide content that fits the audience.

4.3 Strengthen privacy protection

The elderly have weak discrimination ability and poor awareness of privacy protection. They are the hardest hit areas of online fraud. Many scams are almost "tailor-made" for them. Online trading, dating inducement, identity counterfeiting and other means are very common. Therefore, protective measures play a very important role in aging adaptation. In the current aging modification, the appearance functions such as font enlargement and simplification can be seen to be significantly changed. However, the tighter protection of personal privacy, the timely filtering and reminding of harmful information, and the more thorough protection of online payment security have been ignored by developers. The neglect of privacy issues will greatly raise the threshold for the elderly to enter the intelligent era, make them feel at a loss and fear difficulties, and eventually lead to their refusal to cross the "gap" and embrace new technologies. Therefore, developers need to strengthen privacy protection. All information adopts the real name system. Only one account can be registered for one ID, which is bound with the accounts of relatives. If there are security risks, relatives should be notified immediately. At the same time, it is linked with wechat to ensure the security level and provide a lock for the safety of the elderly.

4.4 Fully Integrate Intelligent Technology

In the future, the enhancement of the adaptability of intelligent media to the elderly requires the introduction of intelligent elderly care solutions based on the latest technologies such as the Internet of things, artificial intelligence and big data. For example, by using perception technology, the health status of the elderly can be continuously monitored accurately and efficiently to form intelligent early warning, intelligent risk prediction and rapid response. Maximize the integration and optimization of resources, improve the coverage, quality and efficiency of elderly group nursing,

Xu Chenfan and Liu Feng, "Analysis on the Adaptability of Smart Media to Aging from the Perspective of Aging Governance," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 5, Issue 1, pp. 4-8, 2022.

improve the quality of life of the elderly and their families, and enhance the sense of well-being and acquisition. Promote services such as "Internet + medical health", "Internet + nursing service" and "Internet + rehabilitation service", explore the intelligent elderly care mode, promote the integrated innovation and integrated application of animal networking, big data, cloud computing, artificial intelligence, blockchain, ultra-high definition video, virtual reality and other technologies in the field of health and elderly care, and improve the intelligent level of health and elderly care products and services. Make up for the shortcomings of the traditional pension model.

V. FINDING

This paper makes a simple analysis on the current situation of the aging development of intelligent media, briefly describes the trend and role of the aging adaptability of intelligent media, puts forward the important significance of intelligent media in helping the elderly group to cross the digital divide, points out its existing problems, and further puts forward the decisive Countermeasures and the key to design, so as to promote the elderly group to integrate into the development of the digital society as soon as possible and form a good social custom of caring for the elderly.

REFERENCES

[1]. Dengyanling "The development strategy of the aged media under the background of active aging." Youth Journalist 25 (2020): 3
[2]. Fangyuechun "Problems and Countermeasures in the application of Internet of things in smart elderly care." Electronic Technology & Software Engineering 18 (2021): 2
[3]. Jinxiaozeng "Innovative research on building aging appropriate social media from the perspective of active aging." Public Communication of Science & Technology 17 (2018): 2
[4]. Litongtong, and Wang Ran "Research on the aging development strategy of the Internet in the context of smart media." Journalism Communication 10 (2021): 2
[5]. Liuquansheng, and hanxiaowei "Analysis on the main problems and Countermeasures of intelligent elderly care in China." Chinese and Foreign Entrepreneurs 30 (2019): 1
[6]. Liuyongmou "Technology governance, anti governance and re Governance: taking intelligent governance as an example." Social Sciences in Yunnan 2 (2019): 7
[7]. Meng Bowen, and Yin Wen "Research on the adaptability of new media to the elderly from the perspective of old age communication -- Taking smartphones, wechat, Tiktok and other apps as examples." Media Observer (2021)
[8]. Qian Hao, and Li dingfang "On the aging adaptability design based on the intelligent platform for the middle-aged and the elderly -- Taking the friends app as an example." Observation Scope View(2020)
[9]. Wu Jing, Yu Shuyi, and Zhang Ying "Application status and communication countermeasures of China's aging app in the era of smart media." Chinese Journal of Gerontology39.21 (2019): 4
[10]. Zhang Xi "Research on user experience design of new and old people using smart phones."
[11]. Zhao Na, and Tan Tian "An analysis of active aging in social media -- Based on Maslow's hierarchy of needs theory." Journalism Lover (2021)