

The Predicament Faced by the Elderly Population Constrained by the Digital Divide and the Strategies to Establish Legal Frameworks for Bridging this Gap

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ABSTRACT

As a typical "digital vulnerable group", due to multiple factors such as lack of technological adaptability, limited economic resources and insufficient policy support, the "access gap", "use gap" and "knowledge gap" in the background of the digital age are deeply trapped in the complex dilemma. It is difficult for the elderly to fully enjoy the many conveniences brought by digital technology, which not only seriously restricts their ability to obtain basic life services and effective social participation, but also poses a potential threat to their privacy protection and personal dignity. In view of this, how to use legal means to effectively deal with the digital divide faced by the elderly has become a major issue to be solved. From the perspective of the rule of law, this paper aims to systematically analyze the specific manifestations and deep-seated causes of the digital divide for the elderly, and examine the deficiencies of the current legal framework and policy system. On this basis, this paper will deeply explore the use of the rule of law thinking and means, in order to explore the effective path to bridge the digital divide of the elderly.

KEYWORDS

The elderly group; Digital rule of law; Human rights

1 The Present Situation and Challenge of Digital Divide for the Elderly

1.1 Triple Manifestation of Digital Divide

The specific performance of the elderly on the issue of digital divide can be refined into three dimensions: access, use and knowledge. First, the access gap is clearly reflected in the low penetration rate of Internet and smart devices among the elderly. Taking 2020 statistics as an example, the Internet penetration rate of people aged 60 and above in China is only 12.1%, which is far below the national average, highlighting the significant disadvantage of this group at the level of digital access.^[1] Limited economic conditions and the high cost of smart devices have become key factors restricting the elderly's access to the Internet, thereby depriving them of the opportunity to enjoy the convenience of digital services. Second, the usage gap is reflected in the ability of the elderly to operate smart devices. The complexity of the design of smart devices and applications undoubtedly creates barriers for older people to use digital technology. The lack of accessible design makes the elderly face great challenges in daily operations such as scanning code payment and online booking, further aggravating their marginalization in the digital world. Finally, the knowledge gap, as the deepening of the access and use gap, is manifested as the deficiency of the elderly in the acquisition and understanding of digital technology knowledge. This knowledge gap is not only reflected in the difference in the ability to acquire information, but also reflected in the

difference in the cognition of technological tools and the ability to adapt to social environment. The strangeness and fear of digital technology further aggravate the marginalization of the elderly in the social structure, making their participation and integration in the digital age greatly reduced.

1.2 The Impact of the Digital Divide on the Lives of Older People

The digital divide has a significant negative impact on the quality of life of older people, which is reflected in multiple levels, such as public service access, social participation and intergenerational relations. In the field of public services, older people are unable to effectively use digital technology tools such as health codes, and face challenges such as limited travel and difficulty in accessing basic services. This not only limits their daily activities, but also affects their convenience to enjoy basic life services such as medical treatment, shopping, and entertainment, thus reducing their quality of life. At the level of social participation, the existence of the digital divide exacerbates the sense of social isolation of the elderly. Unable to effectively integrate into the digital society, the elderly are marginalized from many social activities, which reduces the interaction and connection with society, and then affects their mental health and social sense of belonging. The digital divide is also exacerbating intergenerational tensions. As "digital natives", the young generation has a natural affinity and dependence on digital technology, while the elderly gradually lose their position of equal dialogue in intergenerational interaction due to the strangeness and fear of technology. This technical difference not only leads to the aggravation of communication barriers between generations, but also affects the harmony and stability within the family.

2 The Legal Status and Dilemma of the Elderly Digital Divide

2.1 The Status of the Legal Framework

Under the legal framework of protecting the rights and interests of the elderly, China has established a relatively complete legal system, of which the Law on the Protection of the Rights and Interests of the Elderly, as the core pillar, provides detailed provisions on the rights and interests of the elderly in key areas such as life security, medical services and social assistance.^[2] However, in the face of the rapid wave of social digital transformation, the current Law on the Protection of the Rights and Interests of the Elderly has shown obvious lags and deficiencies in the protection of the special rights and interests of the elderly in the digital society. Specifically, the traditional rights and interests protection framework of the law mainly focuses on the physical field, and has not yet included the rights and interests of the elderly in digital technology access, privacy protection and technology adaptation. In the context of the digital era, the elderly have increasingly prominent demands for the right to access information technology, the right to security of personal privacy in cyberspace, and the suitability of technology products and services. However, the lack of the existing legal system undoubtedly brings potential risks to the digital life of the elderly.

At the same time, the Personal Information Protection Law, as an important cornerstone of privacy protection in the digital age, provides a solid legal support for all citizens' data rights. However, current laws do not adequately address the special needs of the elderly, a specific and vulnerable group. For example, in the process of informed consent, complex privacy clauses or technical barriers may lead to difficulties in understanding, which in turn poses a potential threat to the information rights and interests of older people. Especially in the field of Internet services, the formulation of privacy policies often ignores the reading and comprehension ability of elderly users, which not only aggravates the use barriers of elderly people in the digital environment, but also further expands their vulnerability in information protection.

In addition to the Law on the Protection of Rights and Interests of the Elderly and the Personal Information Protection Law, the Network Security Law and the E-commerce Law also provide indispensable legal support for the standardized development of the digital society. These laws emphasize the security of the overall network environment and the protection of user data, laying a solid foundation for the construction of a safe and orderly digital ecology.^[3] However, while these laws play an important role in ensuring cybersecurity and data protection, they fall short in terms of protection for digitally vulnerable groups, particularly the elderly. Specifically, the legislative focus of the Network Security Law mainly focuses on the strict requirements for enterprise data protection and the standardization of network operation, while the law does not provide specific and targeted provisions for the technical obstacles, operational difficulties and suitability problems that the elderly may encounter in the actual use of network services. As a result, the elderly often lack effective legal protection when facing complex network operations, which increases the risk and inconvenience of using digital technology.

Similarly, although the E-commerce Law clearly stipulates the protection of consumer rights and interests in e-commerce activities, there are certain gaps in the specific protection measures for the elderly, a special consumer group. The elderly may face higher risks and challenges in e-commerce activities such as online shopping and payment due to complex technical operation and difficulties in information identification. Therefore, how to further strengthen the legal protection of the elderly under the existing legal framework has become an urgent problem to be solved.

2.2 Problems in the Practice of Rule of Law

Beyond the legal system, the role of policy-level practice in narrowing the digital divide among older people cannot be ignored. Among them, the "Help the Aged Smart" initiative is an important policy practice launched in recent years to meet the needs of the elderly in digital services. The initiative provides strong support for the integration of the elderly into the digital society through a series of measures such as popularizing training on the use of smart devices, building an age-appropriate service platform, and setting up digital skills education courses. In some regions, the government has worked closely with communities to carry out training courses on smartphone use to help the elderly master basic digital skills such as scanning code payment and health code applications, which has not only improved their digital literacy, but also significantly enhanced their trust and acceptance of technology.^[4] However, in the process of policy implementation, some practical problems have also been exposed. On the one hand, there are some limitations in the popularization and depth of the policy. Due to the lack of resources, it is difficult for the elderly in some remote areas to enjoy the corresponding training and services. Especially in rural communities, there are many challenges in organizing digital skills training, which further aggravates the marginalization of the elderly in the digital society. On the other hand, policy implementation is highly dependent on the initiative of local governments and lacks national unified implementation standards and continuous support mechanisms. Due to the uneven distribution of resources, it is difficult to build a long-term mechanism in some regions, resulting in obvious regional differences in policy effects.

3 The Path to Bridge the Digital Divide of the Elderly Group by Rule of Law

In order to effectively solve the problem of digital divide faced by the elderly and build a comprehensive and effective path of rule of law, we should start from two core dimensions: first, strengthen the perfection of the legal system, and second, clarify and strengthen the responsibility of multiple subjects.^[5] On this basis, it is necessary to achieve close coordination and deep

integration at multiple levels such as legislative planning, policy design and practical operation, so as to build a systematic and comprehensive solution system.

3.1 Improving the Legal System

Improving the legal system is undoubtedly a fundamental measure to narrow the digital divide and protect the digital rights and interests of the elderly. From the construction of the legislative framework to the improvement of the judicial remedy mechanism, the normative and mandatory nature of the law provides a certain degree of protection for the rights and interests of the elderly. At present, although the Law on the Protection of the Rights and Interests of the Elderly has widely covered the rights and interests of the elderly in the traditional life field, its protection is still insufficient in the rapidly changing digital society. Therefore, we strongly suggest that when the law is amended, new provisions such as "digital privacy", "Internet access" and "ageing-appropriate services" should be incorporated to keep pace with The Times, so as to ensure that the elderly can also enjoy an equal and barrierless legal basis for using digital resources in the digital world. In addition, in order to protect the special rights and interests of the elderly in the digital society in a more comprehensive and in-depth way, we propose to formulate a special Digital Inclusion Law.^[6] As a special legislation, the law will create a comprehensive and detailed legal protection framework for the unique needs of the elderly in the digital society. In this process, we can learn from advanced concepts such as the "right to be forgotten" in the European Union's General Data Protection Regulation (GDPR) to provide more intimate and thoughtful legal protection for the elderly.^[7]

As major providers of digital products and services, enterprises play a pivotal role in promoting age-appropriate design. Therefore, it is necessary to clarify the age-appropriate requirements of enterprises in product design through legal means, including but not limited to optimizing interface design, simplifying operation processes, and providing convenient voice assistance functions. At the same time, the law should also stipulate that enterprises must provide professional and patient technical support services for elderly users to ensure that they can obtain timely and effective guidance and help when using digital services.^[8]

In order to effectively protect the legitimate rights and interests of the elderly in the digital society, it is also necessary to establish special judicial relief channels. When the rights and interests of the elderly are damaged due to privacy leakage, operational errors and other reasons in the process of using digital services, the law should provide them with clear and clear complaint procedures and judicial support. In addition, we recommend the establishment of an independent monitoring body to regularly review and evaluate the performance of the government and enterprises on aging services to ensure that the policy measures are effectively implemented.

3.2 Strengthening the Responsibility of Multiple Subjects

Based on the solid foundation of legal protection, the collaborative participation of multiple subjects is undoubtedly a key bridge to narrow the digital divide of the elderly and promote their better integration into the digital society. The active guidance of the government, the responsibility of enterprises and the extensive support of society complement each other to build a more friendly and inclusive digital environment for the elderly.

As the backbone of public services, governments should always put the needs of older people at the heart of digital public services.^[9] By carefully building a public service platform suitable for aging and continuously optimizing the government service interface and operation process, the elderly can more easily use digital technology to obtain the services they need. In addition, the government also needs to vigorously promote the training of smart devices and basic skills education at the

community level, especially in remote areas, and to ensure that every elderly person can enjoy equal opportunities to use technology through policy support and special funding, so that no elderly person will miss the dividend of the digital age due to geographical restrictions.

Enterprises also play a pivotal role in promoting the development of aging technology. The government can stimulate the innovation vitality of enterprises through policy incentives and tax incentives, and encourage them to actively develop age-appropriate digital products and services that better meet the needs of the elderly.^[10] At the same time, as a bridge connecting the government and the people, social organizations should also give full play to their unique advantages and provide necessary help and support for the elderly by organizing public welfare activities and carrying out digital skills training. Some volunteer teams have achieved remarkable results in this regard. They provide valuable technical guidance and psychological counseling for the elderly through one-on-one teaching, community lectures and other forms, and effectively improve their digital literacy.

The importance of home as the primary environment for the elderly to contact digital technology is self-evident. The government and all sectors of society should encourage the younger generation to take the initiative to take the responsibility of "digital re-feeding" and actively help the elders master basic digital skills through policy publicity and education. This kind of mutual assistance and cooperation between generations not only helps to bridge the technological gap and enhance the emotional connection between family members, but also stimulates the enthusiasm of the elderly to learn, so that they can find their own fun and value in the digital world.

4 Conclusion

With the acceleration of the digital process of society, the impact of the digital divide on the elderly has become more and more prominent. As a "vulnerable group" in the digital society, the elderly not only face restrictions on their quality of life and social participation due to their lack of access to and use of digital technology, but also weaken the goals of social equity and technology popularization to a certain extent. The problem of digital divide is not only a challenge of technology adaptation, but also a right protection problem that needs to be solved through the way of rule of law.

Based on the analysis of the legal framework and practice status, this paper reveals that the core of the digital divide of the elderly lies in the insufficient protection of the emerging digital rights and interests of the law, as well as the resource and coverage problems in policy implementation. In order to meet these challenges, we need to build a systematic path of legal protection from two aspects: perfecting the legal system and strengthening the responsibility of multiple subjects.

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