

Adapting to Old Age with Digital Intelligence Technology: Transformation and Development of Gerontological Social Work Talent Cultivation in the Age of Digital Intelligence

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Abstract: Under the dual background of social digitalization and aging, it is particularly important to discuss the cultivation of gerontological social work talents. By analyzing the new requirements and natural transformation put forward by the transformation of social digitalization on gerontological social work, and exploring the effective development path of gerontological social work talents training, we put forward the suggestions of constructing the "Digital Intelligence +" multidisciplinary fusion cultivation system, constructing the compound high-level teacher team, and building the multifaceted collaborative cultivation practice platform, which are conducive to the development of gerontological social work talents in line with the social development and provide favorable support for the construction of gerontological social work talents training.

1. Introduction

In the age of digital intelligence, society has put forward new requirements for geriatric social work, and the cultivation of geriatric social work talents has become particularly important. At the present stage, the aging population continues to climb, and the importance of geriatric social work services is becoming more and more prominent. At the same time, digital intellectualization has formed an unprecedented new quality of productivity, and the rapid development of information technology represented by digital platforms, artificial intelligence, big data, cloud computing, and the Internet of Things (IoT) has promoted the transformation of social work to digitalization and intelligence, but there is a lack of technical geriatric service personnel in China ^[1]. The digital-intelligent transformation of geriatric social work brings an incision to reconfigure the talent team and puts forward new requirements for traditional geriatric social workers.

Therefore, in order to adapt to the development trend of society, it is necessary to accelerate the cultivation of a new type of gerontological social work talent team, and the gerontological social work talent training system needs to be innovatively reconstructed. How to understand the new demand and new transformation of gerontological social work talent training, how to build the path and strategy of talent training system, and how to cultivate more complex talents who can adapt to the transformation and development requirements of gerontological social work have become the topics that need to be discussed in depth.

2. New Requirements for Gerontological Social Work in the Age of Digital Intelligence

2.1. Mastering deeply integrated digital intelligence technology

The service objects to be faced by geriatric social work and the problems to be intervened are constantly and profoundly constructed by digital technology, then the technology utilized by social workers must go beyond the traditional intervention technology and explore the use of digital technology ^[2]. Gerontological social work needs to incorporate elements of digital technology in its practice to enhance digital literacy and skills. The form of social work services is rapidly changing from traditional to intelligent, and social workers are being asked to use artificial intelligence technology to replace most of the data processing methods and forms of communication with service users ^[3]. Therefore, mastering traditional work skills while simultaneously improving the

ability to use AI technology so that the new technology can effectively work with the original work model to maintain relationships with clients as well as provide continuity of care, necessary emotional support, and communication puts new demands on the learning ability and creativity of social workers [4]. Geriatric social work professionals need to continuously learn new digital technologies, algorithms, and data analysis methods to adapt to the needs of the digital-intelligent era. They should cultivate innovative thinking and utilize digital intelligence technology to solve practical problems and promote social progress.

2.2. Helping to build an age-friendly and intelligent society

While changing the traditional way of increasing convenience, the digital intelligence construction of social work has also brought technical barriers for the elderly groups who really need the services. More convenient access to social work services is based on the premise that the service users have a certain ability to use them, and if the service users lack the necessary skills, they will not be able to enjoy the convenience brought by the digital intelligence change. Compared with other social groups, the elderly have lower digital literacy and have difficulties in accessing information and using platform services. On the one hand, geriatric social workers should pay attention to the problem of digital divide among the elderly, solve the troubles of the elderly who are "afraid to use" and "not good at using", and help the elderly to better integrate into the smart society and adapt to the development of social digitalization, so that the elderly can share the development dividends of digitalization. The elderly groups can share the dividends of digitalization development. On the other hand, geriatric social workers should promote the construction of an age-friendly smart society, and gain a deeper understanding of the problems and needs of the elderly in a digital society, so as to provide a basis for the development of age-friendly products and services.

3. Transformation of Gerontological Social Work Training in the Age of Digital Intelligence

3.1. Cultivation goal: from traditional skill cultivation to complex talent cultivation

The requirements for the quality of geriatric social workers in the era of digital intelligence have been extended from traditional social work knowledge to the comprehensive enhancement of interdisciplinary ability, technology application ability and intelligent management ability. Nowadays, geriatric social work needs to cultivate high-quality comprehensive talents who master nursing, medical treatment and information technology [5]. At present, the enrollment scale of undergraduate colleges and universities and vocational colleges and universities related to senior care service has increased significantly, and the education of industry practitioners is mostly graduated from vocational colleges and universities [6]. Vocational colleges and universities focus on cultivating skill-based talents, and the cultivation goal focuses on cultivating talents who have basic social work theory, methodology and practical ability, and who can provide life care, psychological support and other services for the elderly. This single training goal can no longer meet the needs of digital and intellectual transformation and development, and should be changed to digital and intellectual composite orientation. The required training talents should not only be proficient in traditional geriatric social work professional knowledge and skills, but also cultivate composite talents who can analyze the demand characteristics of the elderly using big data, develop ageing-friendly service products with the help of artificial intelligence technology, and build a smart elderly service system through Internet of Things technology, so that they can become versatile talents who know both professional and technical skills.

3.2. Cultivation system: from single-discipline cultivation to multi-discipline integration cultivation

The traditional education system of gerontological social work has gradually failed to meet the demand for professionals in social development, especially in the cross-cultivation of multiple disciplines. The digital and intellectual transformation of geriatric social work emphasizes the

application of intelligent equipment and information technology, such as cloud wisdom social work service platform, big data monitoring system, etc., and emphasizes the mastery and use of digital and intellectual technology. Currently, the disciplinary training setup within universities is relatively homogeneous, neglecting the required multidisciplinary cross-cutting knowledge, such as information technology, artificial intelligence, and data analysis knowledge. Although some colleges and universities have begun to add courses related to smart aging in recent years, on the whole, the training mode of related professionals has not yet realized a systematic and comprehensive innovation, and has failed to effectively meet the urgent demand for composite talents. Therefore, gerontological social work talents cannot only rely on the specialized knowledge of a single discipline, but must have the comprehensive quality of multiple disciplines. For example, the integration of sociology and intelligent technology helps develop intelligent products that meet the needs of the elderly and provide personalized services. Multidisciplinary intersections can promote innovation in elderly services and improve service quality and efficiency, thereby better meeting the increasingly diverse needs of older persons.

3.3. Curriculum: from traditional curriculum to digital teaching

The traditional curriculum system of geriatric social work is dominated by courses such as basic theory of social work, geropsychology, gerontology, etc., and there are fewer courses related to digital and intelligent technology. In order to adapt to the transformation of the digitalization of society, the curriculum system should be reconstructed to incorporate courses related to digital technology and intelligent application. On the one hand, additional digital literacy courses should be set up to systematically teach students the operation of digital tools, information processing, data security and other knowledge, on the other hand, the traditional professional courses should be revamped and upgraded to incorporate digital intelligence elements into them, such as adding new technological means such as case studies of digital services, the operation of online service platforms, and psychological interventions of virtual reality to the curricula. In addition, cross-border integration courses can be offered to broaden students' knowledge horizons and cultivate their ability to integrate resources across borders. New achievements of digital development such as big data, cloud extremity, artificial intelligence, etc. are integrated into the teaching of the curriculum, and disciplinary crossover and digital-intelligence integration are integrated into the construction of the curriculum, so as to promote the construction of the curriculum itself and to form a new growth point of the curriculum construction. Fully integrate the achievements of digital development into curriculum teaching, enabling students to acquire knowledge that aligns with the evolving needs of society and fostering a spirit of digital innovation.

4. The Innovative Path of Gerontological Social Work Talent Cultivation in the Age of Digital Intelligence

4.1. Constructing "Digital Intelligence +" Talent Training Mode

In the era of digital intelligence, the training of gerontological social work talents should be fully integrated into the current digital intelligence technology resources, based on the high-quality development demands of the digital intelligence era, and construct the "Digital Intelligence +" interdisciplinary curriculum system, so that the gerontological social work talents not only have the knowledge reserve of gerontological social work, but also have a certain degree of knowledge of other digital intelligence-related professional disciplines. Quality. In recent years, some colleges and universities have gradually opened cross-curricular modules for talent cultivation. For example, in order to build a new mode of cultivating compound professional talents for the transformation of Chinese society into digital intelligence and to serve the overall situation of national strategic development and the needs of local social development, Fudan University has launched a dual bachelor's degree program of "social work-artificial intelligence" [7]. In the process of "Digital Intelligence +" integration training system construction practice, digital thinking is deeply integrated into the talent training system, realizing the synergistic effect between gerontological

social work and digital technology, artificial intelligence and other disciplines, promoting cross-border integration in multiple fields, and giving rise to new professional growth points. By breaking the disciplinary boundaries between traditional gerontological social work, social psychology, computer science, and data science, this approach combines the analysis of service needs among elderly populations with intelligent algorithm design and data mining techniques, thereby forming a novel knowledge system and practical framework.

4.2. Construction of compound high-level teacher team

Building a high-level faculty team with composite knowledge structure, rich practical experience and strong teaching ability is crucial for the gerontological social work specialty to carry out the transformation of digital intelligence, and it is also an important prerequisite for cultivating composite talents. Attract teachers with expertise in artificial intelligence, machine learning, big data analysis, intelligent interaction design, and related fields to join. Teachers with cross-disciplinary backgrounds can not only integrate cutting-edge technological knowledge, such as machine learning and intelligent interaction technology, into curriculum teaching, but also inject digitalized teaching concepts and innovative thinking into traditional social work education. Enhance the teacher training system by encouraging and supporting faculty participation in academic conferences and expanding opportunities for interdisciplinary academic exchange. Regularly organize field research and study tours for teachers, particularly to smart elderly care institutions and enterprises, to gain insights into cutting-edge industry developments. Leverage school resources to build a robust school-enterprise collaboration platform, integrating resources in the field of digital and intelligent elderly care services. This will help teachers stay informed about industry trends and promote effective communication and knowledge sharing among them.

4.3. Constructing multi-dimensional collaborative cultivation practice platform

Talent cultivation of gerontological social work cannot be separated from practice, and it is especially important to build a multi-collaborative practice platform. First of all, "government, school, enterprise and society" should be deeply integrated to build an integrated talent training practice system. Strengthen in-depth collaboration among universities, social institutions, and government departments, while engaging enterprises and social organizations to jointly develop practical courses. Special attention is paid to strengthening cooperative relationships with intelligent senior care institutions and intelligent senior care service enterprises, so that students can gain a deeper understanding of the digital transformation of the senior care industry, and master the use of intelligent health detection equipment, digital management of senior care service information and other cutting-edge technologies and concepts. Second, build an online big data platform to share industry advice and resources. It can be easily applied in teaching and research to provide data support for talent training. Finally, strengthen communication and collaboration among all stakeholders by holding regular academic exchange meetings, initiating joint research projects, and co-developing practical teaching resources.

5. Conclusion

Under the dual background of digitalization and aging, gerontological social work is faced with a digital transformation, which promotes the urgent demand for the training of complex gerontological social work talents. At present, the digital and intellectual transformation of society has put forward new requirements for gerontological social work talents, and high-level composite gerontological social work talents is the goal of talent training established by gerontological social work. To establish a 'Digital Intelligence+' talent cultivation model, it is essential to strengthen interdisciplinary integration and the development of practical skills, ensuring that the training system aligns closely with society's digital transformation and industry frontiers, thereby better responding to the complex needs of the modern world. By actively adjusting the training objectives, training system, curriculum and teaching methods according to the social development trend and dynamic needs, and timely training and construction of teachers, the current training mode of

gerontological social work talents can be further improved, and the digitalized transformation of gerontological social work can be promoted, so as to cultivate the complex talents needed by the society.

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