многие инструменты ИИ так и не найдут своего применения в образовании, но очевидно, что запретить полностью рассматриваемую технологию в работе преподавателей и студентов не удастся.

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Background on game modeling as a means of education for the elderly

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Annotation:

Considering the current situation and background of elderly education, it is shown that game modeling has certain potential as a teaching method of elderly education.

In today's society, with the acceleration of the global ageing process, the number of older people and their proportion of the total population of society

have shown a significant growth trend. According to the 1956 United Nations Standard on Population Ageing and its Socio-Economic Consequences, if more than 10% of a country or region's total population is over the age of 60 or more than 7% is over the age of 65, it means that the country or region has entered an ageing society. China has already entered an aging society, especially around 2050, when the aging of the national population will reach its peak1. It is mentioned in Centennial Trends of Population Ageing in China that, according to the 2000 census data, the population aged 60 and above is expected to reach 430 million by 2050, which means that China will maintain the largest elderly population in this century2. Compared with the sixth national census in 2010, the proportion of the population aged 60 and over increased by 5.44 %, and the proportion of the population aged 65 and over increased by 4.63%3.

In China, the trend of aging is accelerating. According to the National Statistical Office, the social criterion for deep ageing is that 20 percent are over 60 years of age and 14% are over 65 years of age. Among other things, a summary of the UN's Population Ageing and Development (2019) and the population data from the NBS shows that the growth of China's 65-year-old population from 2000-2019 was 99.51%, and in only 20 years, the number of people aged 65 years and over in China has nearly doubled. This represents the fact that aging is growing faster in China than in other countries and will continue to grow rapidly4.

The growth of the older population brings with it specific needs for education and learning resources. Based on three important theories: lifelong learning theory, cognitive development theory and motivation theory show the needs and significance of learning and teaching of the elderly. Firstly, the theory of life-long learning not only caters to the new needs of the aging society for the education of the elderly, but also provides a path for the elderly to practice their personal social values. Through lifelong learning, older people can keep up with the times and stay connected to society, which in turn can lead to a happier life. Meanwhile, Cognitive development theory helps us understand the cognitive challenges and changes in the learning process of the elderly. This will not only help us to improve the quality of life and social participation of older people, but also contribute to the goal of active ageing. Lastly, through a deeper understanding of motivation theory and its application to the practice of geriatric education, further research can more effectively stimulate older

adults' motivation to learn and help them achieve the goals of lifelong learning and active ageing.

Traditional models of education have tended to focus on the education of children and young people, while the learning needs of older people have been relatively neglected. However, as the older population grows, so does their need to continue learning, improve themselves and remain socially active. The number of older adults participating in online learning has increased by more than 30 percent in the last five years, a statistic that clearly demonstrates the remarkable change in the learning needs of older adults5. No longer satisfied with traditional leisure activities, they are more actively seeking to enrich their later lives and keep up with the times through learning.

Against this background, games are beginning to be seen by researchers and educators as an emerging learning tool. For older adults in particular, games offer a fun and educational way of learning that can stimulate their interest in learning while meeting their social and cognitive development needs. More than 60% of older adults said that they would be willing to try to learn something new through games, a statistic that shows a high level of acceptance and anticipation of game-based learning modes among older adults5.

Game mechanics, game interface, game rules, game storylines, and game feedback systems are the primary elements of game modeling. The use of game modeling has increased dramatically in the Internet age. The field of education has seen a deeper and more varied application of game modeling due to the rapid development of virtual reality (VR), augmented reality (AR), and artificial intelligence (AI) together with the advancement of Internet technology.

In the field of elderly education, the application of game modeling has special significance and value. As they grow older, they often face a series of challenges in cognition, memory, and learning motivation. Traditional teaching methods often struggle to stimulate their interest and enthusiasm for learning, while game modeling provides a new way of learning for the elderly through its unique charm and advantages. The challenging and interesting nature of the game can stimulate the intrinsic motivation of the elderly, so that the elderly can master new knowledge and skills while enjoying the game. Social interaction and teamwork in games can also have a positive impact on the mental health of older adults by promoting

a sense of social engagement and enhancing their self-confidence and sense of accomplishment.

The growth of the elderly population and changes in learning needs provide a broad application space for game modeling as a teaching tool. With the depth of research and accumulation of practice, game modeling is expected to become an important way to improve the quality of life, social participation and mental health of older adults. In the future, how to further optimize game design to better match the learning characteristics and preferences of older adults will be an important issue for researchers and educators alike.

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