



## Applications for the elderly of Artificial Intelligence (AI) in Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province

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### Abstract

This research aims to 1. To study the application of AI in the elderly Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province. Use qualitative research. It is a documentary research, analysis and synthesis of documents and related research. The results were analyzed and presented using descriptive statistics. The research results found that the application of AI in the elderly Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province 1) Feedback from the perspective of providing information, and it can be a simple AI Q&A. It is very convenient for the elderly to have AI as a friend to ask questions and solve their problems immediately. In addition, AI as a data friend, AI can also provide advice and guidance on how to access appropriate information for the elderly. 2) AI as a learning assistant, which means that learning has changed from using a real tutor to AI, which has the advantage of being more personal in learning. 3) Virtual coach, which means that many elderly people may have problems with forgetfulness. It would be great if there was a coach who could give you advice on health management and remind you about how to spend money and improve yourself. It will help you increase your mental strength to improve yourself. Encourage the elderly who do not want to improve themselves after retirement to change their attitudes and become energetic elderly people. 4) Mental Assistant, that is, The use of AI as a mental assistant not only helps users take care of their physical health, but also acts as a mental assistant that can provide advice, suggestions and support for mental health.

**Keywords:** Applications, The elderly, Artificial Intelligence (AI)

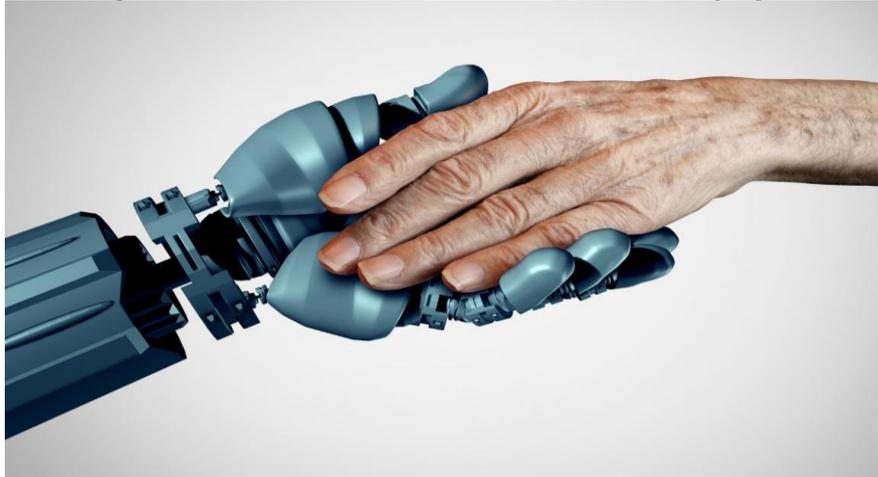
### Introduction

Currently, the population of the elderly group has been increasing continuously. In the future, there will be a phenomenon called the aging society, which has the potential to become a global crisis due to the problem of a significantly reduced birth rate, and it seems that the trend will continue to decrease.

According to the World Health Organization, it is predicted that in 2030, 1 in 6 of the world's population will be over 60 years old, and this number will double by 2050. In addition, about 2 out of 3 of the population over 60 years old will be concentrated in low-income and middle-income countries or developing countries, including Thailand.

When talking about "the elderly" or "the aging society", many people may think and see these elderly people in a negative way, such as those who have retired, have no income, are sick, are not physically strong, cannot help themselves, or do not have the potential to continue working. This idea is a serious misunderstanding. There are many elderly people who want and are able to continue working. But they have to retire and stop working involuntarily. Research by Bonsang, E., & Klein, T. J. (2012). In 2012 stated that involuntary retirement is a major factor that makes many older people have difficulty in living. The main

reason is that those who retire involuntarily still need to earn more income before retirement. Therefore, involuntary retirement is no different from "forced unemployment"



**Figure 1** Artificial Intelligence for the elderly: applications and business opportunities  
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applications and business opportunities Nagusi Intelligence Center Aita Gotzon Street

The role of a type of technology that the author would like to call Cognitive augmentation technology or “AI, a new friend (brain) of the elderly” Cognitive augmentation technology is a technology that helps promote knowledge and understanding, which plays an important role in helping the elderly, both in terms of work and daily life in many aspects. As mentioned, one of the powers that the elderly have over the new generation of workers is expertise and experience, including expertise that has been accumulated for a long time. If Cognitive technology is used to promote the work of the elderly, it will further strengthen the power in this area of the elderly. One of the technologies that is considered cognitive augmentation that is currently popular is Artificial Intelligence or known by the abbreviation AI.



**Figure 2** Activities organized for the elderly in Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province

Many people have different definitions of AI or artificial intelligence. Alan Turing, a pioneer in the AI industry, defined artificial intelligence as “artificial intelligence is the science of engineering in creating intelligent computers, especially the creation of computer programs that can plan, reason, learn, perceive, create perspectives, knowledge, and communicate naturally.”

This study is Applications for the elderly of Artificial Intelligence (AI) in Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province. In order to find answers to the planning of AI development that is appropriate for use, and the adaptation of the elderly is also necessary, which is the origin of this study.

### **Research objectives**

To study the application of AI in the elderly Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province.

### **Research Methodology**

This research is qualitative research by analyzing and synthesizing documents and articles published both domestically and internationally by analyzing the content and summarizing the results descriptively.

### **Research Results**

The application of AI in the elderly Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province. Found that

Artificial intelligence (AI) is rapidly advancing in healthcare due to its potential to unlock the power of big data, derive insights that support evidence-based clinical decision-



making, and enable value-based care (S.C. Chen et al. (2022) . AI refers to the use of machines, such as computers and robots, to learn and solve problems by simulating human intelligence. These machines are often programmed to mimic human cognitive functions rather than the human mind (Lee DH. & Yoon. S.N.(2021). The use of AI has facilitated disease prediction and monitoring, morbidity or mortality risk assessment, disease diagnosis and treatment, and health policy and planning (Guo et al., 2020; Calabrò, R.S. et al.(2019); Schwalbe, N. & Wahl, B. (2020).

David Mhlanga sad the chapter comprehensively examines how AI can revolutionize healthcare, assistive technologies, and social engagement for the elderly, offering solutions that promise increased independence, improved health management, and reduced social isolation. Simultaneously, it addresses the pivotal concerns of privacy, autonomy, and the need for human-centric care in the AI-augmented landscape. We emphasize the importance of developing AI technologies that are not only technologically advanced but also ethically sound, inclusive, and transparent. The chapter proposes a multidisciplinary approach involving seniors, caregivers, healthcare professionals, and AI developers in the conversation, ensuring that AI adoption in elder care is aligned with the real needs and preferences of seniors. By presenting current state-of-the-art developments, potential benefits, and ethical guidelines, this chapter seeks to foster a responsible and beneficial integration of AI into the lives of seniors, enhancing their quality of life while upholding their dignity and agency.

Ma, B.et al.(2023) sad in the adoption of artificial intelligence (AI) technologies in elderly healthcare worldwide. However, in the advancement of AI technologies, there is currently a lack of clarity about the types and roles of AI technologies in elderly healthcare. This scoping review aimed to provide a comprehensive overview of AI technologies in elderly healthcare by exploring the types of AI technologies employed, and identifying their roles in elderly healthcare based on existing studies. A total of 10 databases were searched for this review, from January 1 2000 to July 31 2022. Based on the inclusion criteria, 105 studies were included. The AI devices utilized in elderly healthcare were summarised as robots, exoskeleton devices, intelligent homes, AI-enabled health smart applications and wearables, voice-activated devices, and virtual reality. Five roles of AI technologies were identified: rehabilitation therapists, emotional supporters, social facilitators, supervisors, and cognitive promoters. Results showed that the impact of AI technologies on elderly healthcare is promising and that AI technologies are capable of satisfying the unmet care needs of older adults and demonstrating great potential in its further development in this area. More well-designed randomised controlled trials are needed in the future to validate the roles of AI technologies in elderly healthcare.

1.Artificial intelligence (AI) technologies can satisfy the growing unmet healthcare needs of older adults and compensate for the current situation of insufficient healthcare resources.

2.There exist multiple roles of AI in elderly healthcare and the impact of AI technologies on elderly healthcare is promising.

3.More well-designed randomised controlled trials are needed to validate the roles of AI technologies in elderly healthcare.

Padhan. S. et al. (2023). sad There are calls to redefine ageing. It is unacceptable to use derogatory terms like the "tsunami of ageing." This is unfortunate as it comes at a time when geriatrics is trying to hang on a precarious balance. The rise in geriatricians is coming too late to supply a sufficient number of medical professionals to meet the needs of a rapidly aging elderly population. Global ageing poses significant challenges to health systems and the delivery of elderly care. In recent years, artificial intelligence (AI) and robotics have



emerged as promising technologies to address these challenges by enabling independence and improving the quality of life for older adults. This review article examines the application of AI and robotics in elderly care, focusing on their role in promoting independence, health monitoring, support, and enhancing social interaction. It also discusses ethical considerations, challenges, and future directions in implementing AI and robotics in elderly care.

### Summary

1) Is a response from the perspective of providing information, and it may be a simple AI Q&A that answers questions about information that bothers you. It is very convenient for the elderly to have an AI as a friend to ask questions and solve their problems immediately. In addition, AI as an AI information companion can also provide advice and guidelines to access information suitable for the elderly, such as recommending books and articles related to the interests of the elderly and appropriate news on health and exercise. The advantage of this AI from the elderly's perspective is that it can solve the problem of the elderly not being able to keep up with technology or being unable to use certain technologies, and it can also solve the problem that some people are afraid to ask others.

2) AI is a learning assistant, which means that learning with a tutor (a real human) is much easier than learning through an online system. However, changing from using a real tutor to an AI has the advantage of increasing privacy in learning, but some people may feel embarrassed or afraid to ask a real person. In addition, AI Tutor technology can adjust learning formats and recommendations to suit the learner's needs and learning situation, allowing AI to learn from multiple high-quality sources, making learning more efficient and each person's learning method more consistent. The quality of learning content will be even more effective.

3)Virtual Coach This means that many elderly people may have problems with forgetfulness. It would be great if there was a coach who could give advice on health management and remind you about how to spend money and self-development. It will help you to improve your mental strength to improve yourself, encourage elderly people who do not want to improve themselves after retirement to change their mindset and become powerful elderly people. For example, a startup called Care Predict, founded in the United States, applies AI technology to track and analyze the daily behavior of elderly people, compare it with the average of other elderly people, and check and warn if there is an abnormality. Abnormal behavior.

4)Mental Assistant, that is, the problem of depression in the elderly caused by thinking that you are not worth it, boredom in daily life, has led to a problem facing many countries. The use of AI as a mental assistant not only helps users take care of their physical health, but also acts as a mental assistant that can provide advice, suggestions and support for mental health, especially for the elderly, when they feel lonely or isolated, or are stressed from having to adapt to new environmental changes, having to stay at home, not having friends to talk to, not being able to socialize, etc.

### Discussion of Results

The application of AI in the elderly Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province. Found that

1) Response from information, using information by voice command instead of typing or typing in cases where data can be entered will help search for information for the elderly. Nagusi Intelligence Center(nd.) same way These perceive their environment by acquiring



data, interpreting the structured or unstructured data, reasoning about the knowledge or processing the information derived from the data, and deciding the best action or actions to take to achieve the set goal. Knowledge-based systems or inference programs, are a category of computer programs designed to address problems in a non-procedural way, imitating human reasoning. Their intelligent activity is focused on problem solving, and to achieve this, they use knowledge acquired from experts. It is important to differentiate between information and knowledge. Unlike information, which exists in isolation, knowledge goes further by involving the processing of information such as giving it context or using it to accomplish a specific task.

2) AI is a learning assistant for the elderly. Having tools that make learning easier, especially education, does not stop. The elderly need to apply knowledge in their daily lives or improve their skills for life or careers, which is consistent Kanont, K. et al (2024) With Results showed that expected benefits, perceived usefulness, attitudes toward technology, and behavioral intentions all significantly influenced students' adoption of generative AI. Interestingly, perceived ease of use was negatively correlated with perceived usefulness, questioning traditional TAM assumptions. This study highlights the need to address language barriers, foster a culture of innovation, and establish ethical guidelines to promote responsible use of AI in education. Despite inherent limitations, this study contributes to our understanding of AI adoption in educational environments and can help develop strategies for equitable access and responsible innovation. Results demonstrated that the easier a tool is to use, the less likely learners are to find value in it in their learning process.

3) Virtual coach with the current technology, we can see that AI techniques are a virtual knowledge transfer, imitating humans in a way that is indistinguishable, so it is called virtual learning. This is consistent with research. Sandra J. Diller (2024). Identify concerns about In addition, the first artificial intelligence (AI) tools have emerged as coaching interventions for self-development and well-being. However, the complex nature of the digital environment coupled with the unregulated nature of the coaching profession pose a significant risk for ethical mismanagement. This paper discusses the potential ethical risks in digital and AI coaching that can arise from the (non)human coach, the client, a third party, or the (digital) coaching context. Derived from this, the need for coach training and supervision as well as a sound coach selection based on ethical competencies is emphasized. In addition, the limitations of AI coaching are addressed, suggesting an integrated approach of AI alongside a human coach.

4) Mental Assistant the utilization of AI-powered virtual assistants in mental healthcare holds promise due to their potential to provide immediate and personalized support. Alanzi, T. (2023); Damij N, & Bhattacharya S. (2024); Alanzi, T. (2023); Cheng Y, Jiang H. J (2020) However, the acceptance of AI-powered mental health virtual assistants can be influenced by various factors, including familiarity with technology, attitudes toward mental health, concerns about privacy and data security, and preferences for human interaction in sensitive contexts

### **Suggestions**

This study is a study of document synthesis. There will be specific perspectives on issues collected from published research. Applications for the elderly of Artificial Intelligence (AI) in Bang Somboon Subdistrict, Ongkharak District, Nakhon Nayok Province If information is sought from relevant persons, more perspectives may be found, and this information is important for planning further development.



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