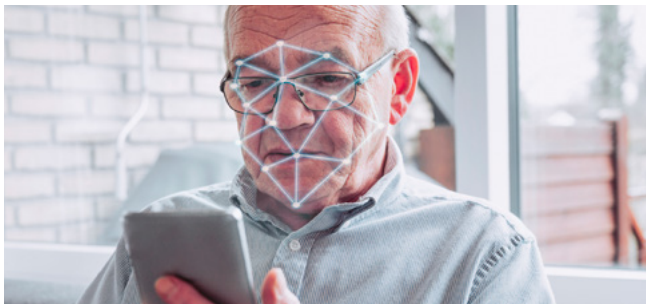# Types of Technology in Aged Care:
Artificial Intelligence

Aged care services are increasingly embracing innovative digital technologies to improve the care experiences of older people and to enable care workers to do more, even with fewer resources (e.g., staff, financial). This information sheet on Artificial Intelligence is part of a series covering types of technology currently used in aged care. These information sheets are available on the ARIIA website.

What is artificial intelligence?

Artificial intelligence refers to the use of technology to mimic human cognitive functions. [1] However, AI can process large amounts of information in ways that people cannot. AI may be used for visual perception, speech or pattern recognition, and decision-making.

How is AI used in aged care?

Artificial intelligence is increasingly playing a role in the care of older adults. Artificial intelligence is often combined with closed-circuit television (CCTV) or a wearable device and might be used for detecting:

- Falls or requests for help
- Pain levels
- Changes in human behaviour (e.g., wandering)
- Changes in routine that may indicate a health issue (e.g., bathroom trips or eating behaviour). [2]

This information may be used to alert family or aged care services.
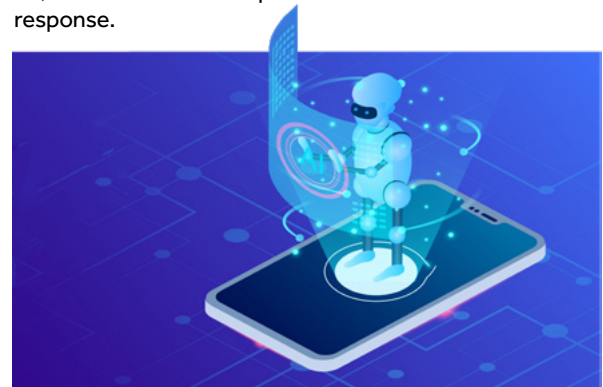
How can AI benefit the aged care sector?

AI may improve care and allow older adults to remain in their own home for longer, improve quality of life, and help families feel more comfortable. However, it is important to note that the introduction of AI is often accompanied by fear or concerns over privacy. [3]

Examples of artificial intelligence technology in aged care

Some artificial intelligence technologies include:

- PainChek® A universal pain management app that can be used to identify the presence of pain, even when it's not obvious, using AI technology.
- HomeGuardian: Uses AI to look at a room/ area and determine what is and what is not normal. it can be used to detect curtains being closed in the afternoon or an oven left on, and is able to make a phone call or activate an alarm in response.

References

1. Jiang F, Jiang Y, Zhi H, Dong Y, Li H, Ma S, et al. Artificial intelligence in healthcare: Past, present and future. Stroke and Vascular Neurology. 2017;2(4):230.
2. Corbyn Z. The future of elder care is here – and it's artificial intelligence. Guardian Australia [Internet]. 2021 [cited 2023 Feb 21]. Available from: https://www.theguardian.com/us-news/2021/jun/03/elder-care-artificial-intelligence-software
3. Williams M. AI can provide aged care greater choice and control. Australian Ageing Agenda [Internet]. 2021 [cited 2023 Feb 21]. Available from: https://www.australianageingagenda.com.au/contributors/ai-can-provide-aged-care-greater-choice-and-control/

Cite as: ARIIA Knowledge & Implementation Hub. Types of Technology in Aged Care: Artificial Intelligence. Adelaide, SA: ARIIA; 2023.