Artificial Intelligence

Its Impact on the Senior Care Industry

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Disclaimer

I am not an Artificial Intelligence expert or computer/software engineer or any of that sort. I am a senior living healthcare expert deeply concerned about the wellbeing and welfare of older adults in our care.

“A village without the elderly is like a well without water.”

African Proverb

Where are we with AL in general

- The artificial intelligence (AI) market is seeing a swift growth overall. It's now an industry of its own estimated to reach over $42 billion in 2023.
- AI democratization will continue and with that, AI is becoming a fundamental differentiator for business
- Generative AI will become commercialized: Examples are such products as ChatGPT, Chatbox etc.
- AI ethics will become a top priority: While there is proven value and great potential, AI still has complex legal and ethical issues that remain unanswered.

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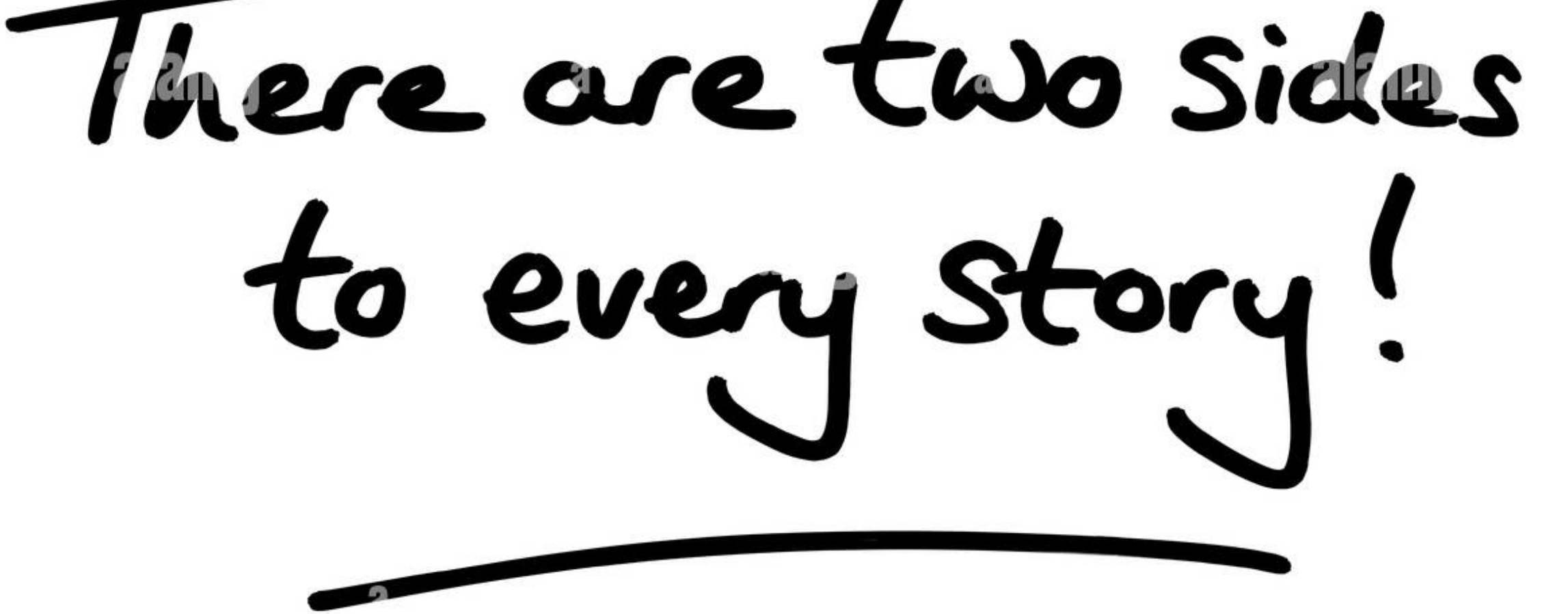
There are two sides
to every story!

AI in Elderly Care

- There has been a noticeable surge in the use artificial intelligence technologies in elderly healthcare worldwide.
- However, there is currently a lack of clarity about the types and roles of AI technologies in elderly healthcare.
- This presentation is aimed to provide potential areas of AI technologies use in elderly healthcare.

CURRENT USE

- ❑ Rehabilitation therapists
- ❑ Emotional supporters
- ❑ Social facilitators
- ❑ Supervisors
- ❑ Cognitive support activities

Common AL Devices in Elderly Healthcare

- ❑ Robots
- ❑ Exoskeleton devices
- ❑ Intelligent homes
- ❑ AI-enabled health smart applications and wearables
- ❑ Voice-activated devices
- ❑ Virtual reality

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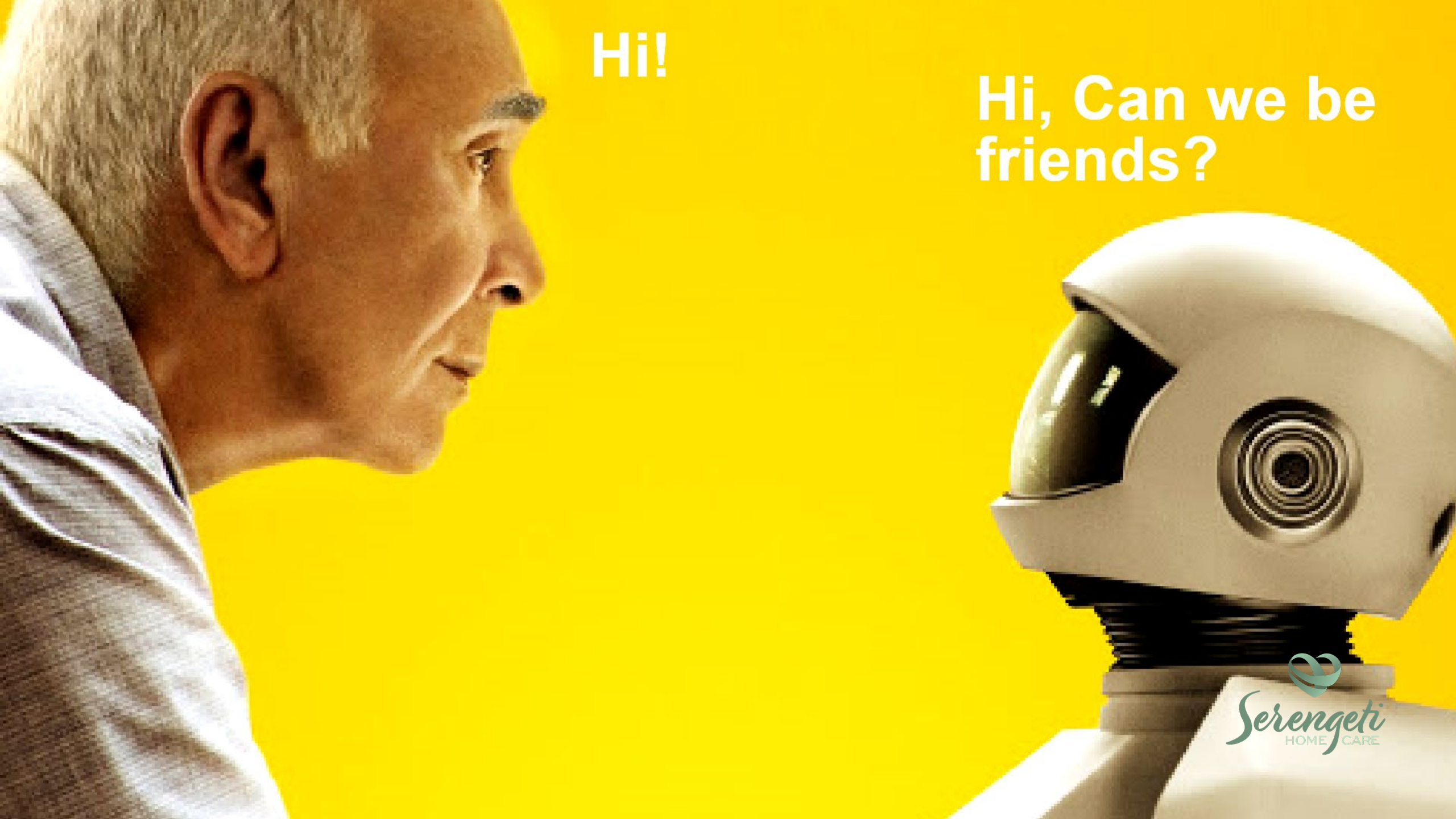
Hi!
Hi, Can we be friends?
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Meet ELLIQ - The active aging companion

https://youtu.be/URcuVfzwB4g?si=n02iIxLZlF9bTWfb

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Artificial Intelligence-It's Not As Bad…

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Artificial Intelligence can provide seniors with cognitive stimulation through engaging activities, games, and brain exercises designed to improve memory, attention, and problem-solving skills.

This can help slow down cognitive decline and maintain overall brain health

The Dark Side

Voice Recognition and deceit –implications on cyber crime

"HUMANS SHOULD BE WORRIED ABOUT THE THREAT POSED BY ARTIFICIAL INTELLIGENCE."
-BILL GATES
SupplyChainToday.com
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Technological progress has merely provided us with more efficient means for going backwards.

— Aldous Huxley —

AZ QUOTES

All Because of the Dark Web

The part of the World Wide Web that is only accessible by means of special software, allowing users and website operators to remain anonymous or untraceable.

The Dark Web poses new and formidable challenges for law enforcement agencies around the world

It has become appallingly obvious that our technology has exceeded our humanity.
Albert Einstein
EVERYDAYPOWER

EVERY YEAR

Cybercriminals steal approximately $ 40 billion from vulnerable older adults in the United States alone

COMMONLY USED TACTIC

Impersonating to be a government official such as IRS Tax agent

EMAIL SCAMS

Among the top 5 scams targeting older adults

With AI at everyone's disposal, It's getting very bad!

Voice Cloning

- Also known as voice synthesis or voice mimicry, is a technology that uses machine learning to simulate a specific person's voice.
- This technology requires a certain amount of voice data to analyze and learn the unique vocal characteristics of the individual.

NBC News on Voice Cloning

https://youtu.be/V6_jCGzR020?si=OREJocia-6t7LBHh

60 MINUTES

https://youtu.be/lDCXHG2l3Es?si=JpTyFJgdcBXdVV6b

Potential Implications of Voice Cloning

- You can be talking to a wrong person without knowing it. This is already happening and is one of the supreme dangers of artificial intelligence.
- Any one can be deceived via this method but older adults especially those with some cognitive deficits remail extremely vulnerable.
- This means criminals can cause harm of every kind in much direct ways than before.

Fake Person

- https://www.google.com/search?q=examples+of+voice+cloning+obama&client=safari&sca_esv=562561242&bih=772&biw=1397&hl=en&ei=sQb2ZMKcOdKq0PEPz_OUmAc&ved=0ahUKEwiCuaL9sJGBAxVSFTQIHc85BXMQ4dUDCBA&uact=5&oq=examples+of+voice+cloning+obama&gs_lp=Egxnd3Mtd2l6LXNlcnAiH2V4YW1wbGVzIG9mIHZvaWNlIGNsb25pbmcgb2JhbWEyBRAhGKABMgUQIRigATIFECEYoAFIhg9Q4ARY6gxwAXgBkAEAmAFqoAH1A6oBAzUuMbgBA8gBAPgBAcICChAAGEcY1gQYsAPCAgUQIRirAsICCBAhGBYYHhgd4gMEGAAgQYgGAZAGCA&sclient=gws-wiz-serp#fpstate=ive&vld=cid:db0d1bf5,vid:AmUC4m6w1wo

Picture or Video Cloning

The ability to clone yourself or someone else with video.

IMPLICATIONS OF VIDEO CLONING

You can see a real video of me and my voice recording talking to you but the person behind is someone else. More likely, some kind of a criminal.

Think of what this might mean for older adults and and children using technology.

Call to Action: Recommendations

- ❑Protection of seniors in our care against cyber crime-Update your processes and policies.
- ❑Protection Against Abuse, Neglect & Financial Exploitation
- ❑Invest in AL Technology such as robots
- ❑Artificial Intelligence can be used to bully and scare older adults and cause serious psychological harm
- ❑Artificial Intelligence can be a lethal weapon to financial defraud seniors of financial resources.

Life Enrichment

- It’ is time to have a budget line item that also include investments in advance technology
- Robots have been delivering articles in hotels and hospitals for a while saving organizations time and resources to be dedicated elsewhere
- Robots and other forms to create cognitive engagement among the older adult population remain a huge and untapped fortune

Artificial Intelligence technology can be used to cover gaps in care such as a robot delivery a message, a news paper etc. and prevent neglect

WHO is Concerned that:

- If left unchecked, AI technologies may perpetuate existing ageism in society and undermine the quality of health and social care that older people receive.
- The data used can be unrepresentative of older people or skewed by past ageist stereotypes, prejudice or discrimination.
- Flawed assumptions of how older people wish to live or interact with technology in their daily lives can also limit the design and reach of these technologies.
- They can also reduce intergenerational contact or deepen existing barriers to digital access.
- To ensure that AI technologies play a beneficial role, ageism must be identified and eliminated from their design, development, use and evaluation.

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Summary

- 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.
- If we are not already using some form of AI in our communities, it's time to explore and get on board.
- In terms of safety, we have at the very least, a responsibility to be aware of areas exposing our seniors and do all we can in our power to keep them safe.

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- Nick Bostrom
www.datasemantics.co

"AI IS THE NEW ELECTRICITY."

- Andrew Ng, Co-founder of Google Brain

Thank you

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