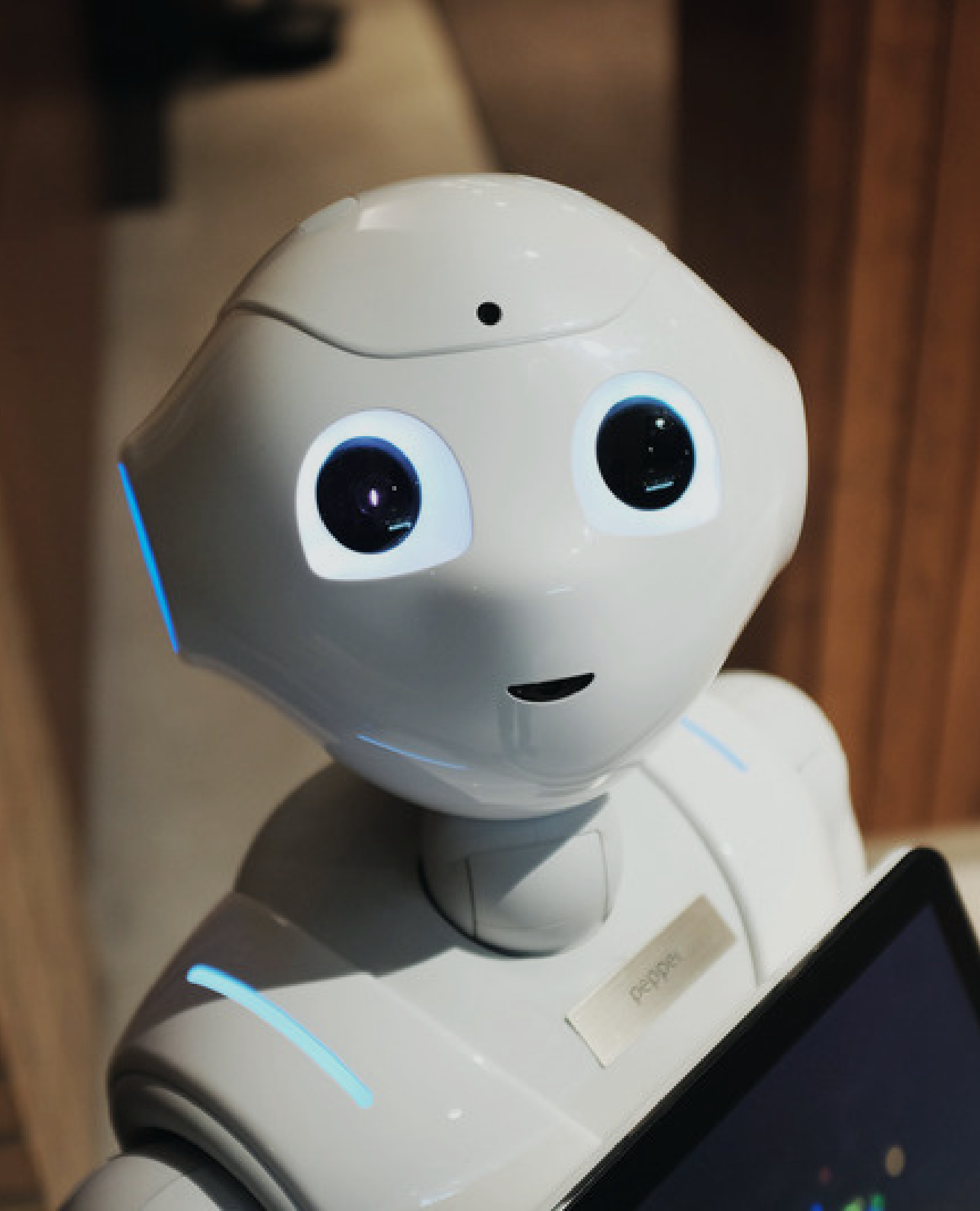




Assistive robotics

Yasmine ALLAL — Hugo LESTRADE

**What is a
socially
assistive robot ?**



→ A socially assistive **robot** is a system that employs hands-off interaction strategies, to **provide assistance** in accordance with a particular assistive context.

APPLICATION DOMAINS

**Senior
individuals**

Individuals
with
Physical
recovery

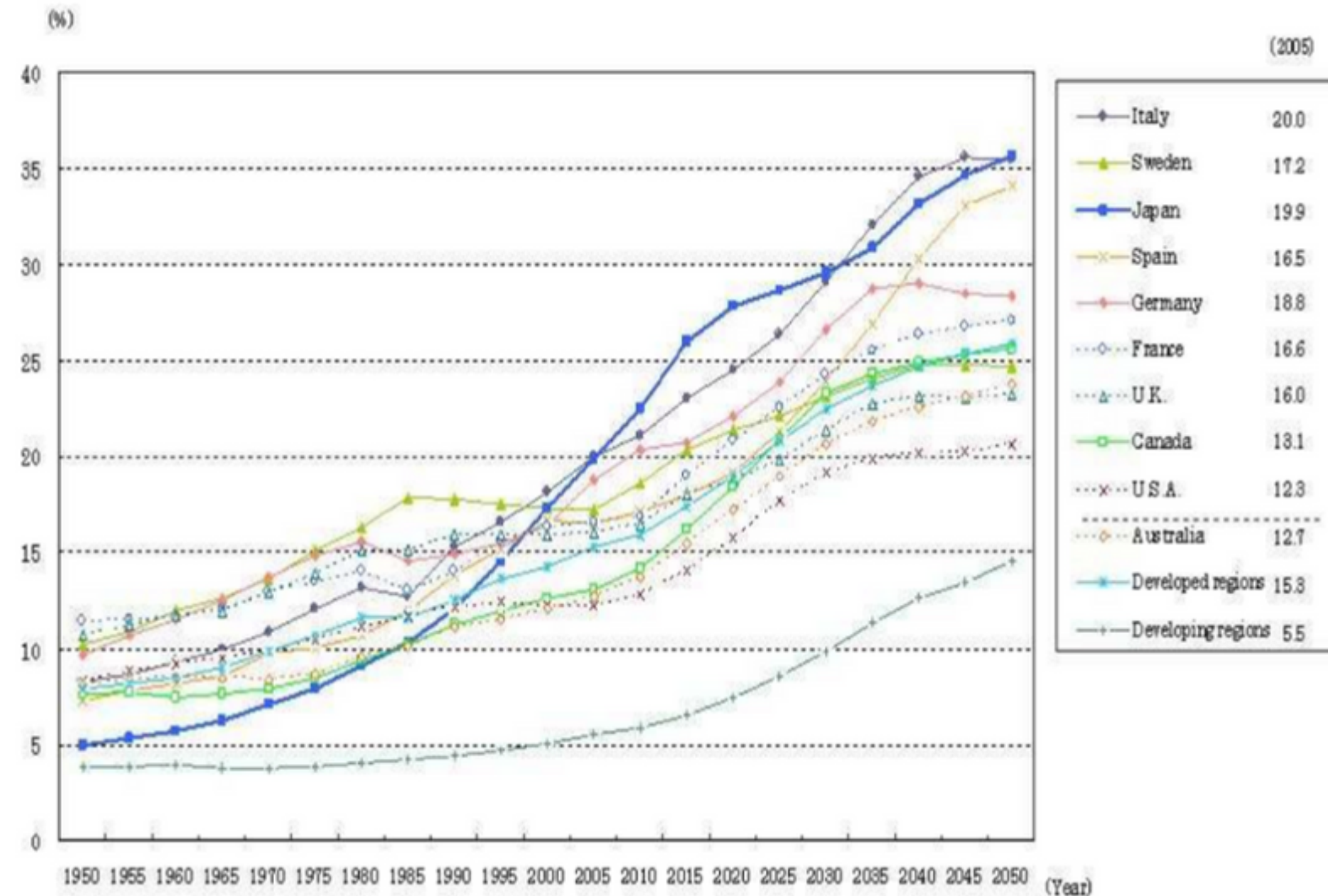
Individuals
with
Cognitive
disabilities



The older you get, the more help you need

It is estimated that in 2050, there will be three times more people over the age 85 than there are today

Canva



APPLICATION DOMAINS

**Senior
individuals**

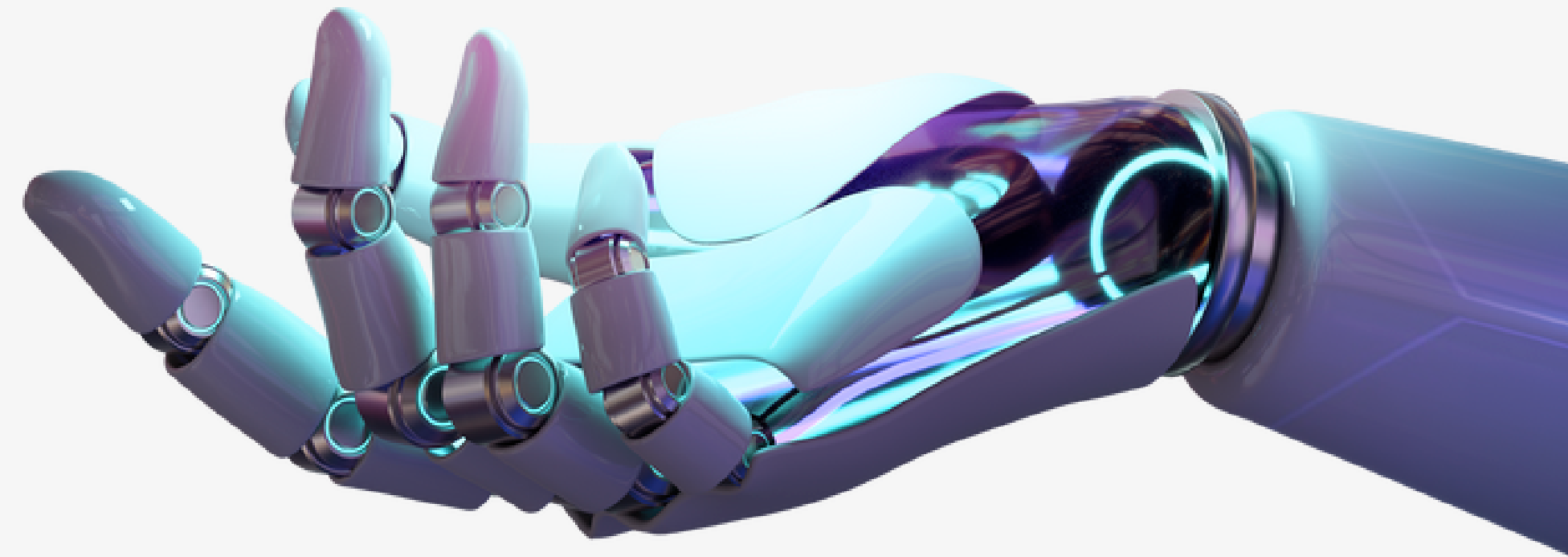
**Individuals
with
Physical
recovery**

**Individuals
with
Cognitive
disabilities**

Physical Recovery

Rehabilitation and Training Needs

Post-stroke rehabilitation is one of the largest potential application domains, since stroke is a dominant cause of severe disability in the growing ageing population.



Motivation

Motivation is recognized as the most significant challenge in physical rehabilitation and training



Coaching

Socially assistive robotics, provides a means of addressing active rehabilitation exercises

APPLICATION DOMAINS

**Senior
individuals**

**Individuals
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**Individuals
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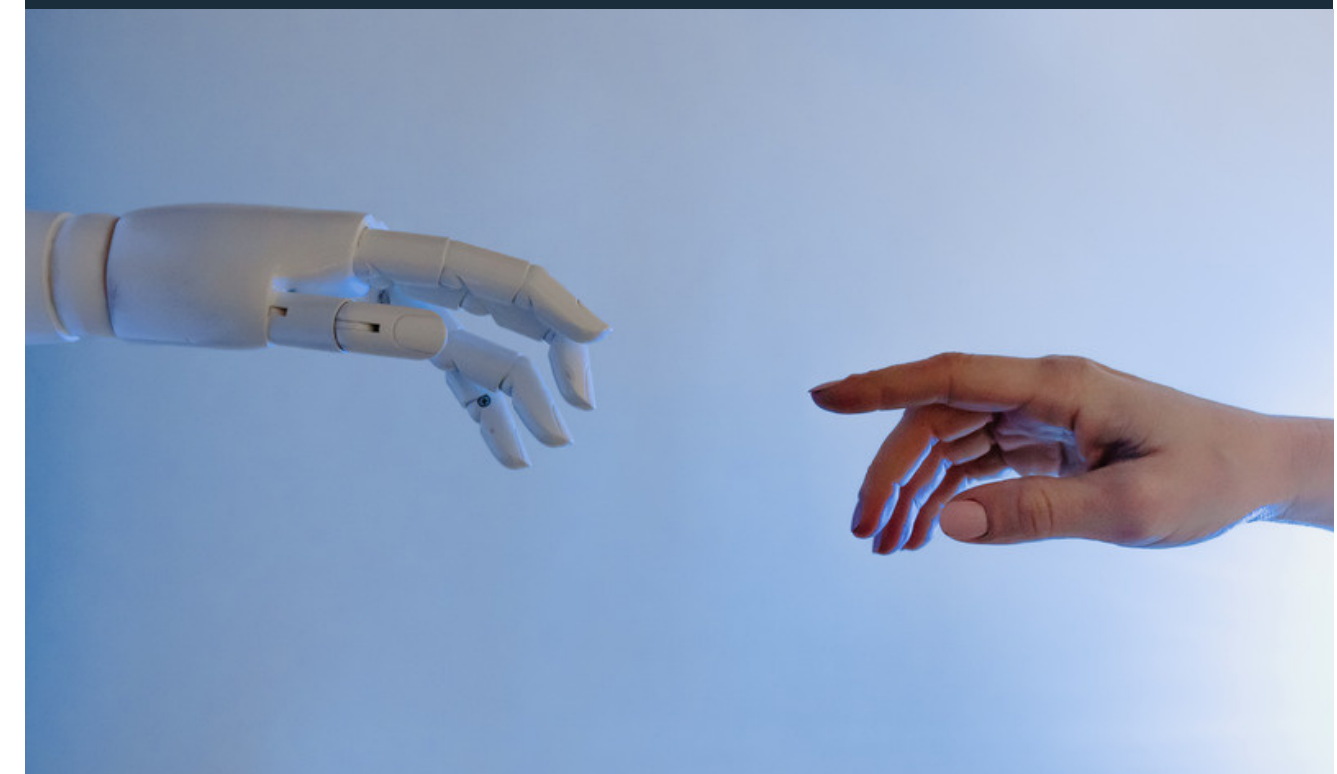
Care of Individuals with Cognitive Disabilities

✓ **1 in every 300 children will be diagnosed with ASD**

Individuals with cognitive disabilities and developmental and social disorders constitute another growing population that may benefit from assistive robotic.

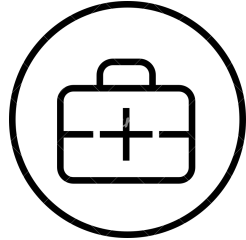


Medicine is the science and practice of treating, preventing



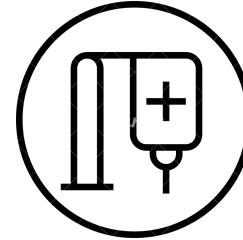
FOCI OF STUDY IN SOCIALLY ASSISTIVE ROBOTICS

We propose to organize the challenges of socially assistive robotics around three broad, and naturally inter-related, research.



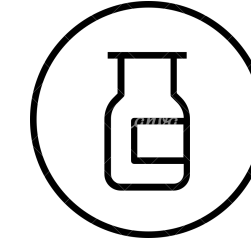
Embodiment

The robot's physical embodiment plays a key role in its assistive effectiveness. It denotes not only physical reality.



Empathy

Empathy is a provocative construct, evoking debate over its measurement in any context, and its potential applications in robotics.



Adaptation

Learning to communicate and adapt our behavior to the information we receive have been fundamental to human evolution



Thank You

May I inquire if you have any queries?

