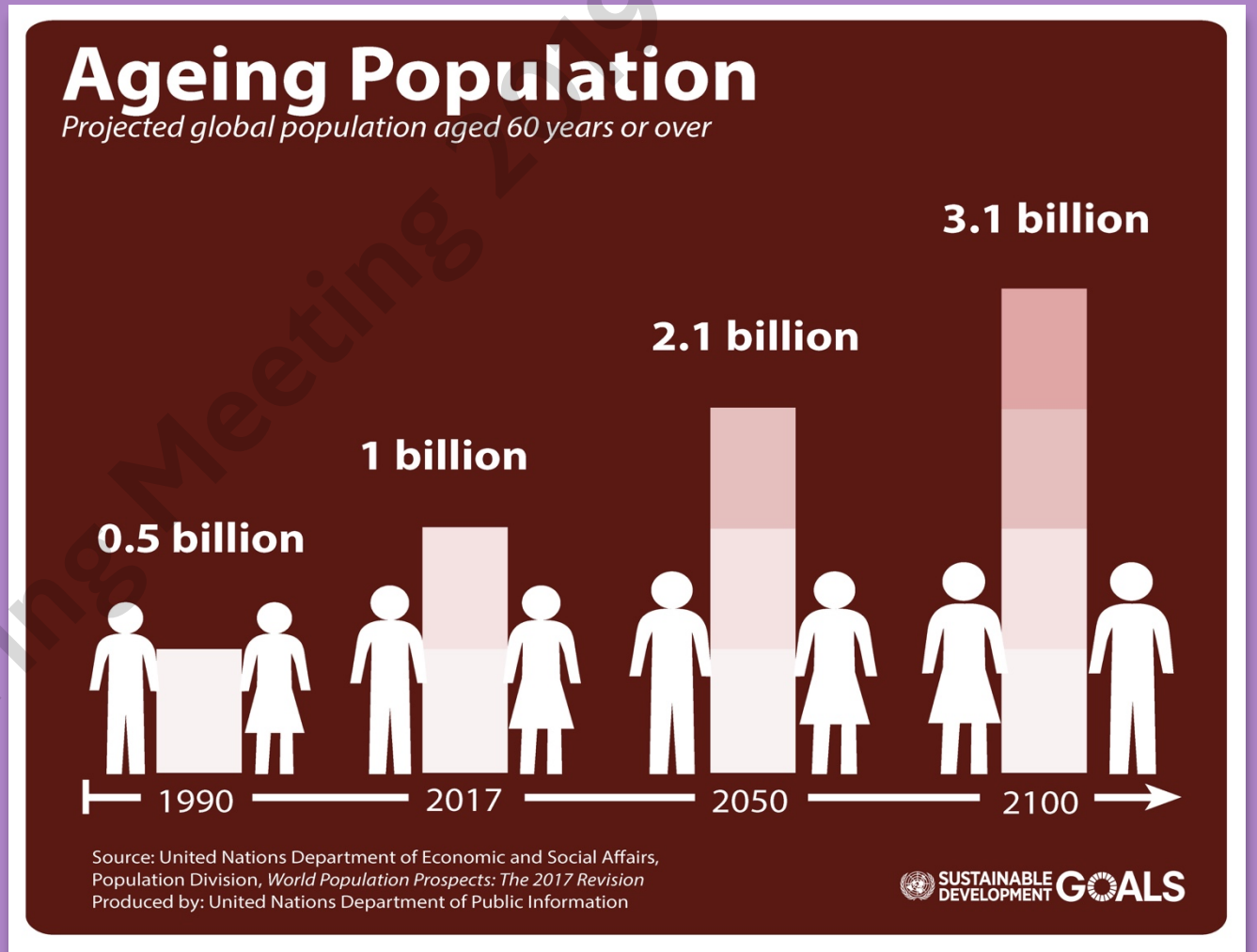


# What is a Companion?

Jordan Abdi  
BGS Spring Meeting  
12<sup>th</sup> April 2019

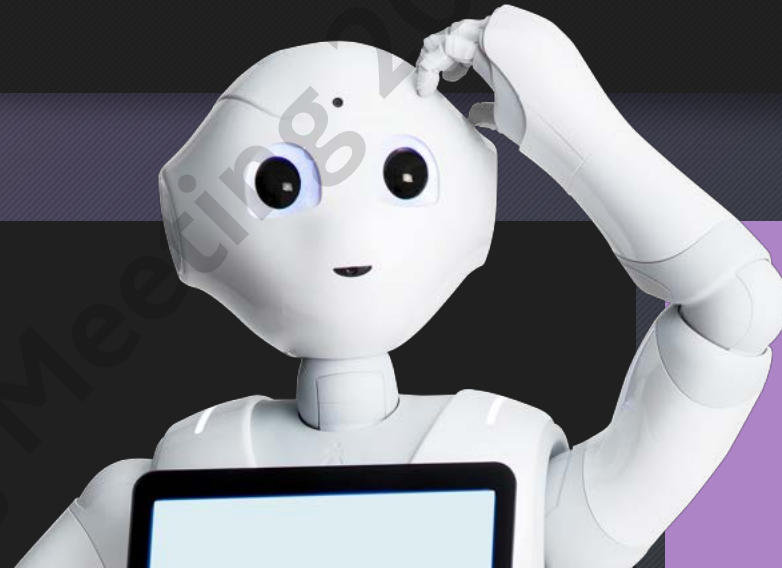
# Our Challenges



What will healthcare look like in 50 years time?







Healthcare robotics

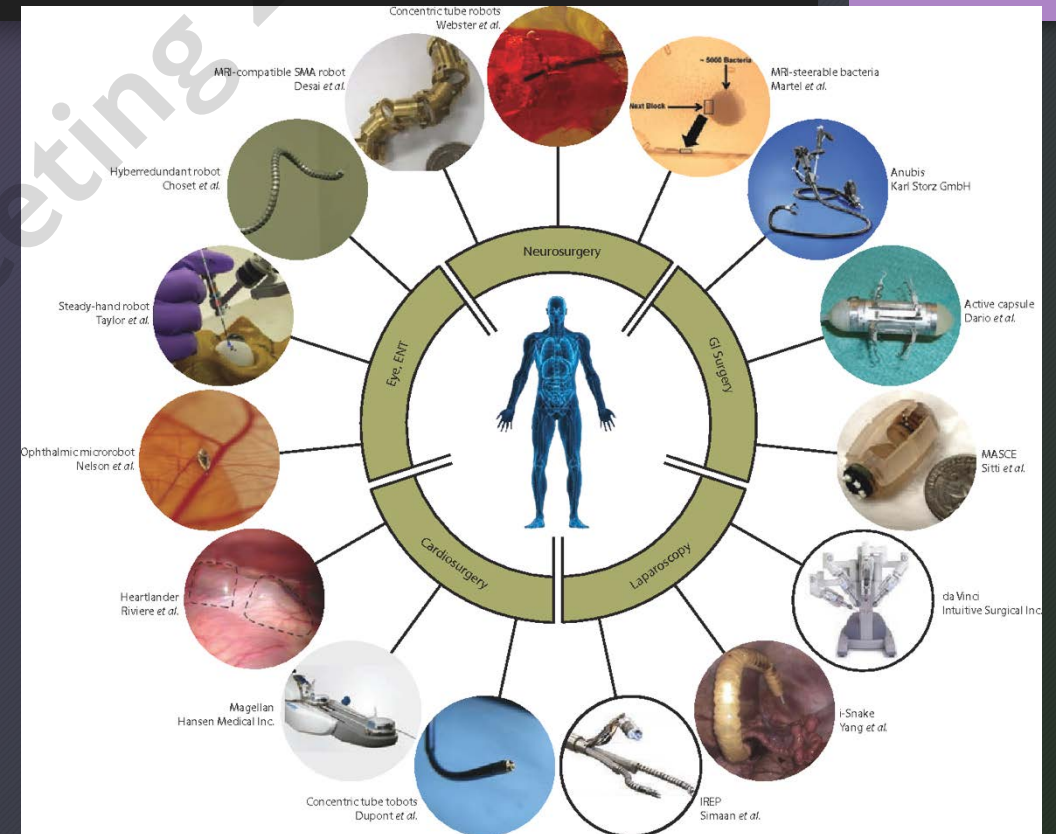


# Physically Assistive Robots



# Surgically Assistive Robots

- Aids surgical procedures
- Surgeon operated
- Utility in:
  - Minimally invasive surgery
  - Remote surgery
  - Automated surgery



# Telepresence Robots

- Communication
- Patient and Doctor operated
- Utility
  - Virtual ward rounds
  - Remote surgical input
  - Monitor at risk patients
  - Virtual consultations





# Task Automation

- Pharmacy robots
- Cleaning Robots
- Delivery Robots
- Healthcare assistants





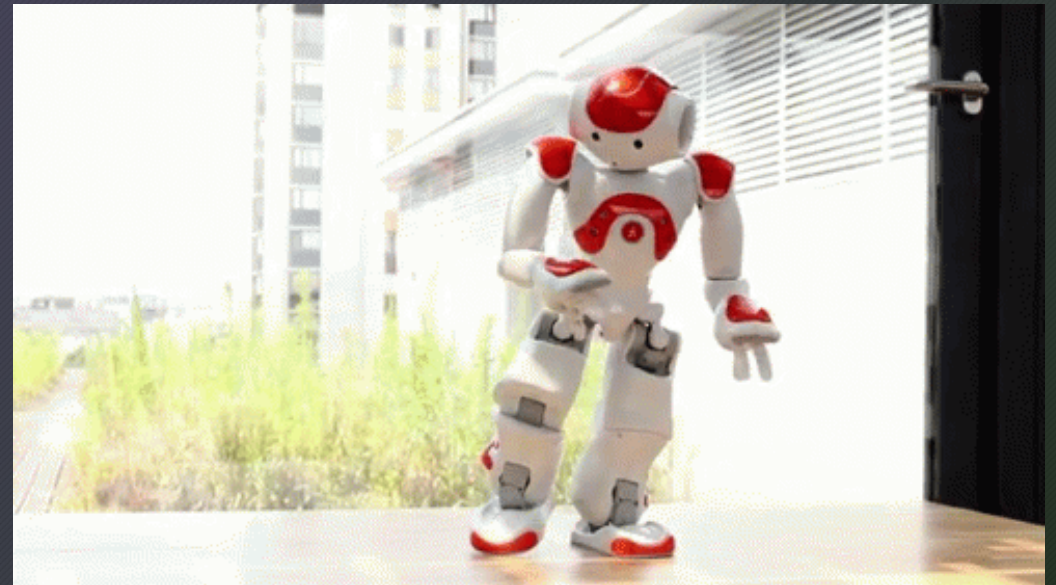


What about real robots?



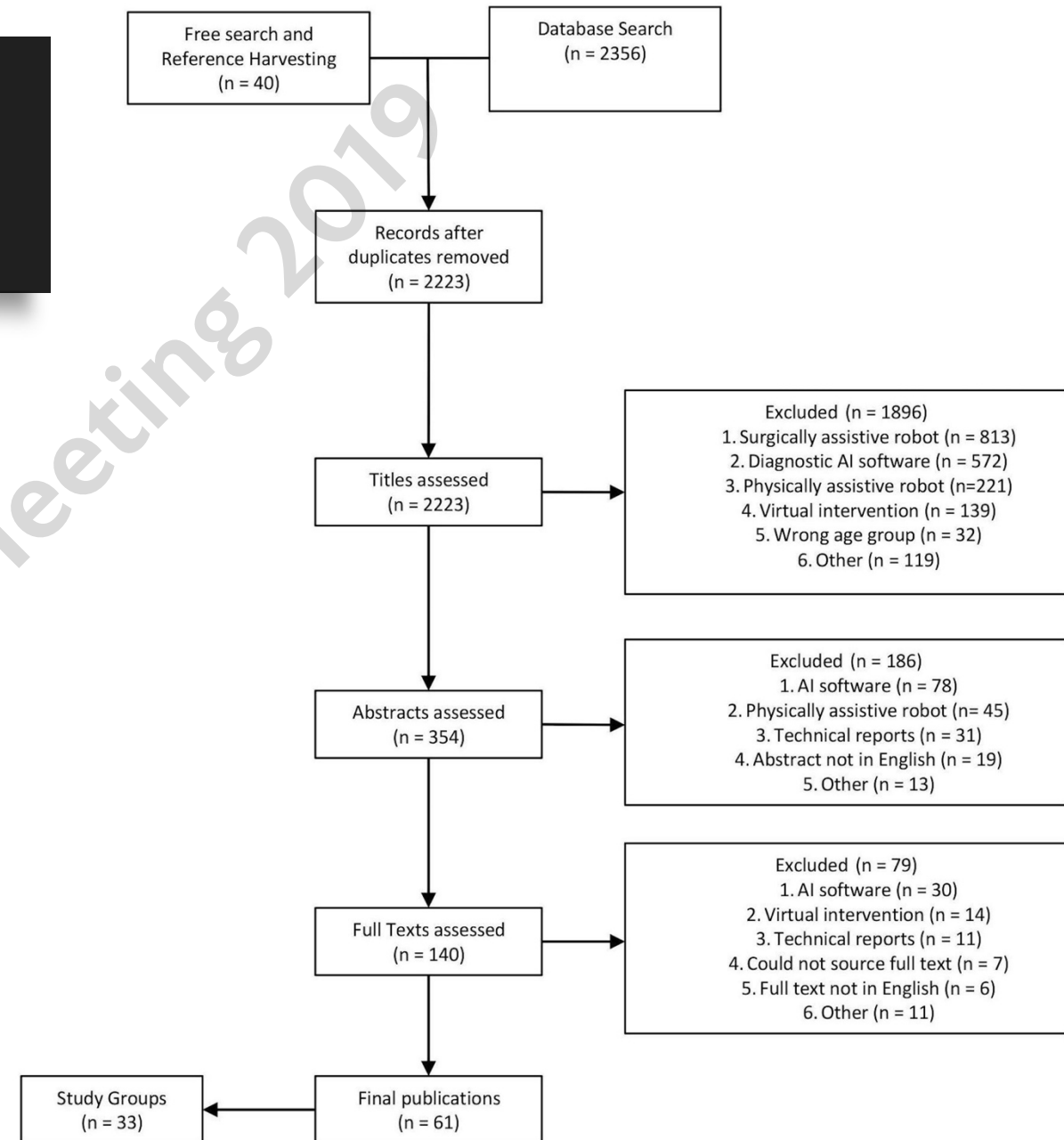
# Socially Assistive Robots

- Interactive Robots
- Multi-purpose
- Automated
- Utility:
  - Elderly care
  - Emotional support
  - Home-monitoring





# What does the data show?





What were the robots being used for?

Affective Therapy



# What were the robots being used for?

Cognitive therapy



What were  
the robots  
being used  
for?

Social Facilitation





What were  
the robots  
being used  
for?

Companionship



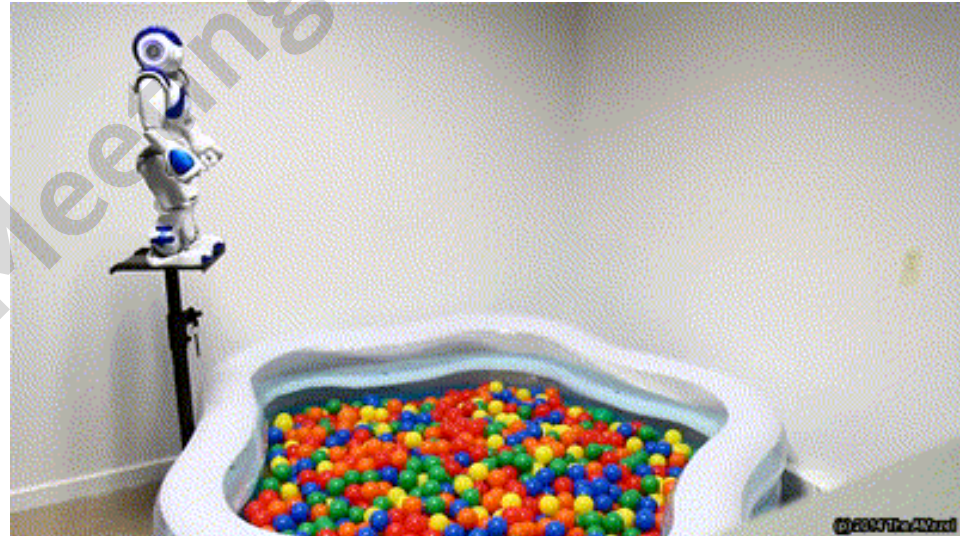
What were  
the robots  
being used  
for?

Physiological therapy





Isn't this  
all just a  
bit of fun?



What does this  
mean for jobs?





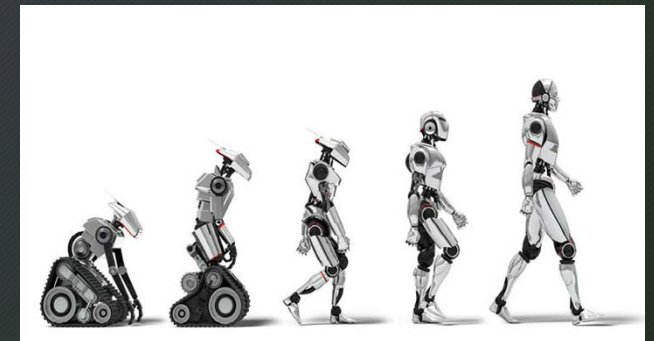
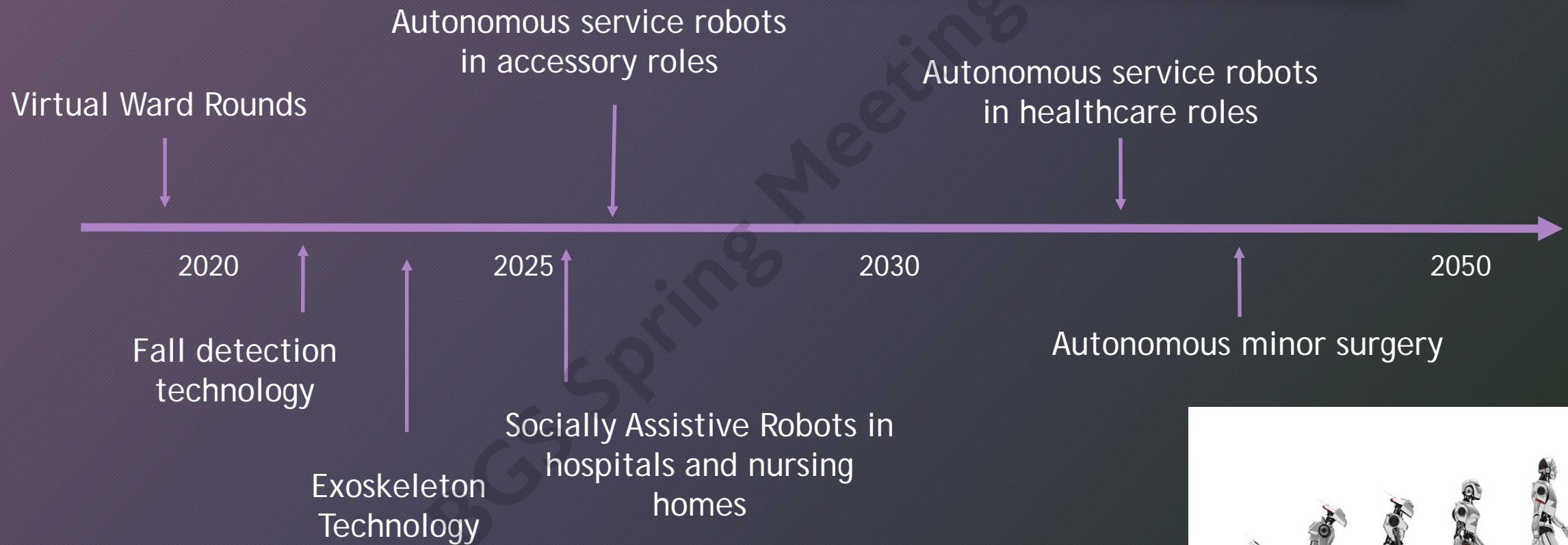
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*“It’s difficult to make predictions,  
especially about the future”*

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- Niels Bohr

# The Future of HealthTech





# Acknowledgements

I would like to thank:

Dr Vizcaychipi's Research Group

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Neuroscience Department @ Imperial College London

APMIC @ Imperial college

Robotic Engineering @ Imperial College

Chelsea and Westminster Hospital

Imperial College  
London



# Thank you for Listening!



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