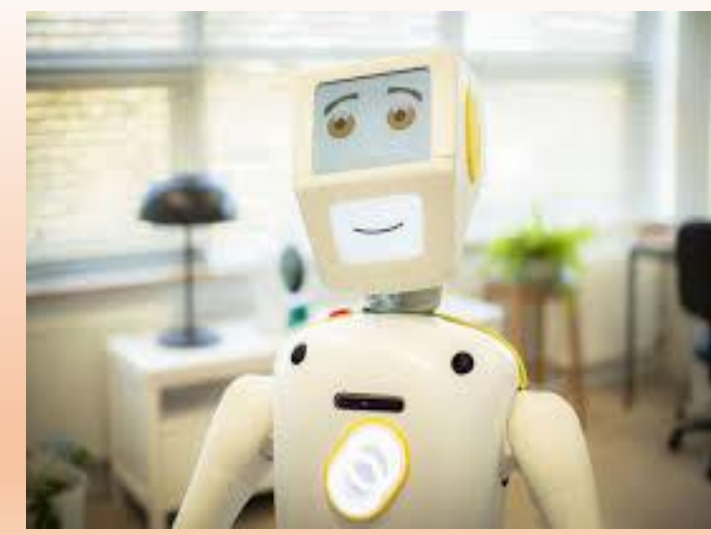# Robots and elderly care
"Social imaginaries and values in design and use"

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Robots in elderly care

It has been argued that robots can provide a practical solution to address the problems associated with the shortage of healthcare professionals and a growing elderly population (EURobotics 2020). Robots in elderly care have a degree of autonomy and may be programmed to have social capabilities in order to socially interact with users (Vandemeulebroucke et al 2019: 128). In addition, most of them must be connected to the internet, allowing them to communicate and share information with other smart devices and platforms (Simoens, Dragone and Saffiotti 2018: 1).

Many countries are now exploring the possibilities of using robots for elderly care. Robots are expected to **reduce care costs, help the caregivers with their heavy workload and provide users with the possibility of independent living.**

Studying the care robots is important as they would alter elderly care and redefine not only the relationships between humans and robots but also the concept of care. Social scientists have been highlighting a range of social and ethical concerns associated with using robots in elderly care settings. More extensive deployment of robots will impact carer/patient relationships and employment in healthcare, it also raises a range of other social and ethical concerns such as robot's autonomy, safety, dataveillance and lack of privacy, patient dignity, social isolation, and deskilling of caregivers (Mittelstadt et al 2016).

Research aims

- To identify the emerging, counter and dominant social imaginaries of robots in care settings.
- To understand the impact of robots on elderly care and care relations.

Research questions

What are the dominant social imaginaries shaping the design and use of robots in elderly care settings?

How are robots in care settings being represented in traditional and digital media and policy documents?

How do the designers and engineers of robots understand the process of ageing, elderly care, autonomy, and independent living?

What goals and social values do the designers and engineers of care robots aim to achieve?

What are the experiences of caregivers and family members of care-receivers with using robots in care-settings?

Theoretical framework:
Social imaginaries of technology and care

"Socio-technical imaginaries" are defined as **"collectively held and publicly performed visions of desirable futures animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology"** (Jasanoff & Kim 2015: 25).

These imaginaries manifest how different policies, innovations and actors with different ideas, concerns, political priorities and cultures shape the ways the socio-technological futures may develop (Jasanoff & Kim, 2015). Social imaginaries of technology shape a cloud of ideas, hopes and fears linked to what future technology can produce or destroy.

Social imaginaries could be diverse and conflicting with each other. This is because the values they embrace could be very divergent and contested. Therefore, social imaginary is not a single definite process or ideology. There are always alternative imaginaries that are criticizing and contesting the dominant socio-technical imaginaries. Social imaginary of technology is a relatively open concept that provides means of portraying the different ways in which actors make sense of the dynamics of technological innovations.

The dominant socio-technical imaginary of care robots suggests that introducing more advanced robots into elderly care settings could be a practical solution to the problems associated with the growing elderly population. However, imaginaries of care suggest that care is no longer seen as a system limited to the relationship between the caregiver and care-receiver. It is considered a very complex matter with social, cultural and ethical dimensions. Therefore, care should not simply be reduced to a mere engineering problem that is addressable through technological innovations.

Methodology

In the first stage, I will conduct a content analysis of the existing documents on the topic of robots in elderly care settings. By analysing the relevant documents such as media, newspapers, related websites, forums and policy documents (such as relevant documents released by the UN, the EU, governments, research centres and state agencies), I aim to map and identify the main themes, values, ideas, process and social imaginaries that are forming the debate.

The second stage is identifying the main actors involved in the use and design of robots in care settings (in Ireland and other European countries) and conducting semi-structured qualitative interviews with them. The actors could be engineers, designers, companies, academics, members of relevant civil societies, etc… In addition, I will interview professional caregivers who have had experiences with robots as well as the family members of care-receivers.

In the third stage, I will conduct participant observation in a care home or a research lab where a robot is being designed, used or tested. This stage will help me understand the design part of the process and observe how these robots are being implemented in care settings.