

Robots and elder care

[questions and talking points]

[from an interview with Bloomberg]

<https://www.bloomberg.com/news/videos/2021-01-04/robots-bring-smiles-to-care-homes-video>

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Please intro yourself

- Cian O'Donovan
- I'm a social scientist at UCL's Dept of Science and Technology Studies in London
- I research who exactly benefits from technology and innovation, such as AI and robotics
- And why those benefits are so often very unequally distributed amongst people who need them most

What's your background with regards to older people / care homes and robots?

- Innovation in robotics is a form of conversation between needs and possibilities of designers, users and society
- I'm currently researching how robotics that have been previously confined to military and industrial settings are emerging into places like care homes, like hospitals - what conversations are happening. What convos should happen
- I ask what impact do these robots have not only on old people, but on their carers, their families, people who often do unwaged caring.
- A big part of my research is asking how are these technologies tested, configured, and placed in wider care contexts.
- Policy, regulations, accountability structures all matter here.

What do you see as some of the main issues surrounding care for older people?

- Ageing populations, labour shortages are often given as the dominant drivers of innovation in the sector
- But how we think about care is an issue in itself
 - Care is often pitched as a service - regulated like a market
 - Technologies are used to measure how many minutes, or even seconds of care are delivered to old people.
 - Care is more than a market: There's a whole myriad of communities, cultures, values, rules, regulations and yes technologies.
- A big question is how these aspects of care come together - how they might open up or close down certain vulnerabilities - we've seen this in Covid
- Focussing on ageing or labour alone won't solve these issues.

Where do robots come into helping solve these issues?

- Robots are machines that can carry out useful work, often with minimum realtime instructions from humans
- So mundane tasks, for which humans may not have the strength, endurance or accuracy to fulfil on a regular basis.
 - Putting on socks // Providing companionship
 - Very very good at very simple predictable tasks
- But robots also fulfil a political or cultural purpose. They help sell a vision of the future we can all get behind - one that often simplifies the complex problems we have today. Like labor shortages in care homes
 - Result of immigration laws, attitudes to foreigners, attitudes to women and people of colour, low paid work
 - Innovation often distracts us from these thorny issues. Here's a bright sparkly vision of something else.
 - So robotics innovation is doing a very important political job

What are the key challenges around using robots in elder care?

1. Technical challenges

- The limited abilities of robots and algorithms to interpret unforeseen situations and complex environments
- Built infrastructures - often old people live in old houses, or shared houses
- Large capital costs - are owners of care homes (PE firms) willing to bear these

2. Societal challenges

1. Recognising that the drivers of innovation are choices (ageing pop, labour shortages)

3. Socio-technical configuration challenges

1. Understanding why today's configuration of people and things doesn't work so well
 - The danger is we reinforce neglect and vulnerability, not address it
 - e.g. Robotics centralises infrastructures - big data, ai ML, complex repair and maintenance

What are some of the lessons you think have been learned/developments that have happened since these kinds of programs started?

- 1. Design processes which exclude the needs, wants and values of the most marginalised further exacerbate neglect
 - **But** there is some great innovation in design and testing - co-design, participation, radical relation building between people and technology
- 2. Roboticist work with people already on the ground. NGOs, municipalities etc.
- 3. How we measure success is vital
 - Not just technical prowess, or unit sales.
 - It's about about human capabilities - what robots help us achieve, and be
 - and wellbeing in a diversity of people and communities
- For that we need a range of disciplines, not just robotics, CS or even psychology. But anthropology and other social sciences

What are some of the successes you've seen?

- We have to ask what is success. Is it a technical operation. Or. A useful configuration. For me success in innovation is when folks are brought together
- Design: social shaping of robots
 - Growing awareness that robots shape society, and society shapes robots. - obvious, but often ignored
 - Their co-design principles focus on people who are usually excluded from innovation processes are brought into the lab
- Roll out: But it's often not enough to bring people in, there are still exclusions.
 - The six week re-ablement programme at BRL feat. Red Cross and Age UK
 - The programme is the innovation, not the robotics itself.

Please talk about the testing processes: what gets tested, what doesn't, etc.

- This issue of testing is really important.
- Increasingly robotics is tested closer to society
 - living labs replicate aspects of the world
 - Cars are tested on our roads
 - But typically these tests offer only a limited and partial view. They use just a handful of data gathering techniques
 - The goal is either demonstrating autonomy, or garnering binary views of public acceptance
- Missing are investigations of how technologies shape societies in more profound ways. How we have to adapt our infrastructures to 'fit' the technologies. And who pays for all of this.
- And issues of maintenance, repair, and sustainability are often entirely absent from tests.
- Moreover, in many of these tests, it's not clear whether failure is even an options

Who should fund these kinds of programs, is accountability an issue, or is it such a simple/easy win that these programs should just be rolled out immediately?

- Experts are already saying our care infrastructure need urgent action
 - The current model of service provision cannot be sustained without additional public funding
- Accountability is key in technology's role here.
 - Innovation can do two things.
 - It can hide accountability, make it harder to hold powerful interests to account. By neglecting data points, through apps that distribute but don't enter into dialogue
 - Or it can open up processes of accountability, through public forums, citizen juries, participatory innovation and governance.
 - Broadening out the innovation process so it includes families, carers, management, municipalities or local government is really important.

Is it easy to be sceptical of robots / have that whole 'robots are taking over' mindset?

- The key takeaway here is that automation is not automatic
 - Tech like robotics emerge with the imprint of their designers, their funders, their regulators. Social and political choices have been made all along the way
- If we forget that, then promises of tomorrow that allow us relinquish accountability today
- Second point
 - When technologies are introduced, society shifts, I think we need to have a health dose of scepticism at all times
 - It is easy to get sucked into innovation speak - who benefits, who decides?
 - Softbank portfolio managers? Elderly people? Their families

Has covid illuminated the benefits of robots in social care?

- Covid has shone a harsh light on vulnerabilities in the social care sector
- A combination of **poor political planning** and **systemic failings of infrastructure and services** undermined local efforts to adapt to the crisis
- These vulnerabilities stem from neglect in how care is provided and regulated.
- But also in what kind of technologies are researched and supported by public and private R&D
- **WHAT WE NEED TO DO**
 - Situate decisions/accountability locally
 - Consider issues of maintenance and repair all along the way
 - Build up human, as well as robotic capabilities for taking care of people who are most vulnerable in society.
 - Robotics can contribute to this agenda, but it will have to address these issues explicitly

Are robots in social care here to stay?

- Technology has always been a part of care
- Science has led to incredible break-throughs - polio for example
- Robotics of course has something to add here. But the terms of their stay are important
- Robots will have a place in care homes if they can collaborate not just with old folks, but with carers, families and communities.
- If they can improve accountability, not sweep it under the carpet
- That's exciting!

What would you like to see happen in terms of development and implementation in the next few years?

- Move from big data technologies to thick data technologies
 - that accounts for relations and obligations of care within communities of workers, end-users, and unpaid family carers.
- Focus on the issues and people that are traditionally neglected by innovation
- Focus on the other end of scale, across communities, not markets
- Open up processes of innovation to these people. We know how to do this already.

Anything else to add?

- There's a role for policy here because the problem is not a lack of innovation
 - Good policy recognises the challenge not as a deficit of innovation but as a process to be opened up so that a broader range of viewpoints and values might influence the direction along which innovation proceeds
 - More so during epidemics when powerful actors and institutions tend to close down around ideas that emphasise control and stability, underplaying longer-term, less controllable dynamics
 - But these dynamics are exactly the reality of care in the community, which is diverse, unpredictable and laden with all sorts of values.
 - Social robotics, to succeed, will have to understand these social and political dynamics



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