

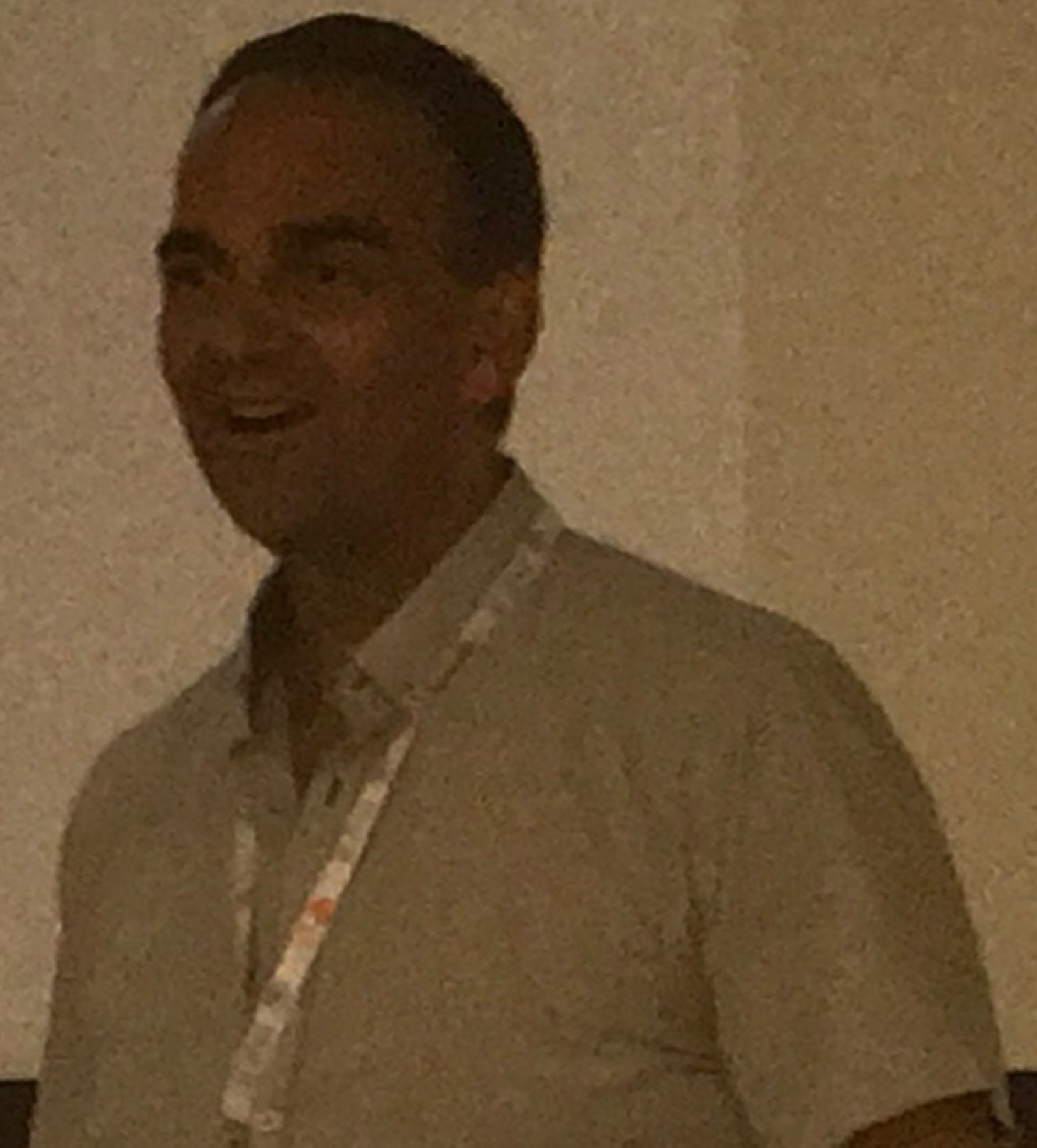


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The Ethics of Inherent Trust in Care Robots for the Elderly

HCC13: This Changes Everything

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Overview

- Background
- Method
- Sample scenario
- Results
- Discussion

Background

Care-giver shortages for the elderly – a worldwide challenge. For example, Finland

- Advocates personalised care, spends more on elderly care than the OECD average, yet fails to meet its own policies, especially in rural areas.
- 27.2% of its population in 2015 were elderly and that is forecast to rise to 32.4% by 2050.
- Similarly, countries which spend significantly less caring for their elderly, such as Canada and Australia are facing shortages of carers for the elderly, particularly in rural and regional areas.

Method

Research question

Are the ethical decisions made by a care robot, which was designed according to the attento framework, valid?

- The framework requires care robots to make value trade-offs during run-time, as opposed to all value decisions being hard-coded.

Phases

- Heuristic, expert evaluation
- Survey with 102 global participants

Scenario

Patient values privacy

Imagine you are getting out of bed and are only partially dressed, having woken up late to take your medicine. Your care robot is deciding whether to either enter your room or knock, so that it can ask you if you want it to retrieve your medicine. It doesn't know that you're partially dressed and it assumes that you're awake because it is late in the day. Usually, you don't like to be disturbed, you are a very private person. Your care robot knows this so it decides to respect your privacy and simply knock, instead of entering.

Scenario

Patient values independence

Now imagine that you value your independence more than privacy. Your care robot can hear you inside your room. It loudly announces that it is beginning its medicine delivery rounds but the announcement is not directed specifically at you. It does this in the hope that you will remember to take your medicine independently, instead of being directly told, which may make you feel dependent on your care robot. If you fail to remember still, it will then call for a human carer to make a decision on what to do.

Scenario

Patient values social connectedness

Now imagine that you value being social and love an unexpected visit from all members of staff and all patients. You welcome people to just let themselves into your room. Your care robot knows that you value being social more than you are concerned at being seen partially dressed, so it lets itself into your room to deliver your medicine.

Results

“Would you inherently trust your care robot or would you need to understand how it makes its decisions?”

- 34% of elderly participants answered “Yes, I would inherently trust the care robot”
- Whereas, only 16% of participants under 50 years of age answered the same.

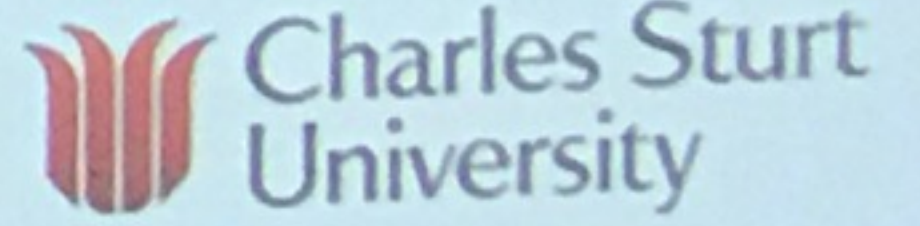
“Would you want the ability to change how your care robot makes its decisions?”

- 83% of elderly participants said “Yes”

“How likely are you to accept and use your care robot in your everyday life?”

- 66% of elderly participants said either “Very likely”

Inherent trust in something you want to change



83% of elderly participants wanted to be able to change how the care robot made decisions and 58% wanted to be able to examine its decision making process to ensure the care provided is personalized. At the same time, 34% of the elderly participants said they were willing to trust the care robot inherently, compared to only 16% of the participants who were under fifty.

The majority of elderly participants professed inherent trust in the care robot but also wished to control and change it, this is somewhat contradictory. This contradiction of inherent trust and simultaneous wariness about control gives rise to the phenomenon.

Phenomenon found: Elderly in need want control over their care to ensure it is personalized, but many may desperately take any help they can get.

Possible causes of the phenomenon

Possible causes

- Failure to implement government strategies that prioritise patient-centred, value-driven elderly care
- Lack of human carers to accommodate the rising number of elderly
- Fear of ill-intentioned caregivers in elderly care

Conclusion

Inherent trust in care robots is unfounded as they are still in their infancy. The inherent trust in our care robot also concerns us as it is theoretical and untested.

Elderly participants of our study were found to inherently trust a care robot that they also want the ability to change. The results demonstrate a phenomenon that reflects poorly on current elderly care; that elderly in need want control over their care to ensure it is personalized, but many may desperately take any help they can get. Additionally, the existence of the phenomenon may result in substantial care robots being distributed which take advantage of the inherent trust.

Discussion and questions



What other possible causes might there be for the elderly of our study being willing to inherently trust a care robot that they also want to ability to change?

Does the scenario presented inspire inherent trust in our care robot?

Questions?