

Elderly care: From independence to interdependence

Shubhangi Gupta
Student
Georgia Institute of Technology
+1 530 407 6154
shubhangi@gatech.edu

1. PROBLEM AND HYPOTHESIS

There has been an increase in the number of family members living away from their older parents. This has been accompanied by a decrease in the time available to family members to care for their elderly parents as the family members struggle to have a successful work-life and care for their own younger kids while also maintaining a healthy and social life for themselves. This has prompted designers to think about how best to care for the elderly and has created an attractive space for technology companies to deploy AI-based monitoring technologies. A popular approach to elderly care that focuses on 'Aging in Place' includes installing cameras or sensors in the house to monitor the seniors' day and night routines. In this paper, I focus on the design of a product that takes such an approach called 'Cherry Home' [2]. 'Cherry Home' includes installing cameras in the house to send real-time alerts to family members and caregivers if there is a fall or any other concern. It aims to help the elderly live independently at their own houses without the need for expensive home care, or assisted living.

This approach to elderly care makes several assumptions regarding the needs of the elderly living in diverse social contexts. (1) They focus primarily on the importance of mitigating risks for 'emergency' situations. This leads to the disregard of seniors' well-being as part of their day to day lives. (2) They aim to provide an individualistic model of care while designing for 'independent' living, which can result in isolating and lonely lives. (3) These technologies are designed with a special focus on caregivers or family members, as they are perceived to be the key decision-makers of the family. The products are designed to ensure the peace of mind of family members and help in reducing the guilt they might feel as a result of not being there for their parents. (4) They present serious privacy and autonomy concerns. It is believed that the more information the family members have about the elderly, the better they may be equipped to care for the elderly and contribute to their well-being. However, the very act of acquiring more information through the use of monitoring technologies can potentially hurt their quality of life.

As part of my research, I question these assumptions and argue for a situated approach to care, as demanded by the needs of the elderly and as mediated by the community in which they live. Through my work, I draw focus to the value of 'interdependence' instead of 'independence' as part of the day to day lives of the elderly. This, I hypothesize, will eventually lead to a better quality of life while respecting the privacy of the elderly and taking care of their physical safety.

2. BACKGROUND

While critiquing the use of monitoring technologies for elderly care, various studies have explored the ethical dilemmas in the acceptance of monitoring technologies by the elderly, primarily concerning privacy and autonomy [1, 5, 6, 7]. These studies discuss the willful trade of privacy for safety made by the elderly and their family members. It has been suggested that maintaining a sense of self for as long as possible, by having control of their lives is essential to the elderly [1,7]. Comments by elderly such as *"There will be no cameras in my room for as long as I live!"* or *"When you can be like this, this has a homely atmosphere. . . But there would not be that atmosphere if everything was monitored. . . Then I would not like to live here anymore"* show the resistance of the elderly to the adoption of monitoring technologies [5]. Tech companies are trying to respect the privacy of the elderly by (1) Using abstractly identifiable data (Cherry Home displays members being monitored as stick figures) when on privacy mode or (2) Avoiding the use of intrusive cameras and using sensors or sound/thermal monitoring. These approaches view privacy as property, where certain visual images (pre-defined) are to be protected in every scenario and disregard the contextual nature of privacy as defined by Nissenbaum [4]

Some products such as ElliQ¹ and PARO Therapeutic Robot² have been designed to act as a friendly and inquisitive companion for the elderly to improve their social and emotional health. These technologies, however, do not account for physical safety and regular check-ins and can continue to be individualistic and isolating in their approach to care.

The present-day technologies are designed around reductive definitions of limited values such as 'privacy' as 'property', 'care' as 'being there for an individual in case of an emergency' and 'independence' as 'living alone in your own homes'. This can be problematic when diverse understandings of these values in various contexts do not align with the pre-defined understanding by the system, adversely affecting the well-being of the elderly. The monitoring technologies are often presented as models that are always watching over your loved ones for you in a relatively inexpensive manner. This makes these ways of caring an attractive alternative as compared to more humanistic ways of caring.

¹ ElliQ: <https://elliq.com/>

² PARO Therapeutic Robot: <http://www.parorobots.com/>

3. METHODOLOGY

The initial phase of my research included a close analysis of the monitoring technologies such as ‘Cherry Home’ that are being used to care for the elderly. As part of my analysis, I assessed the rhetoric of the technology companies and the values they support in their design of products. This helped direct my focus to the importance given to emergencies, independence, and caregivers in the design and use of these products. Drawing from Parvin’s theory of ‘Values as hypothesis’ [3], I analyzed the use of ‘Cherry Home’ from the lens of the values of ‘care during crisis vs overall well-being’, ‘independence vs interdependence’ and ‘privacy as property vs contextual privacy’. This allowed me to understand the nuances of the situation that lead to the adoption of monitoring technologies as an ideal approach to elderly care (such as the busy lifestyle of family members, or the inexpensive nature of the technology). This further led me to question the limited approaches being taken by technology companies to address elderly care. To understand the interactions and relationships amongst the various members within the context, I explored the qualitative studies discussing the effects of monitoring technologies on the lives of the elderly. This helped me understand the problem as it applies to the context of care in relation to the various actors and the environment.

Drawing upon my learnings from the literature review, I carried out a comparative analysis where I compared individualistic technologies with a focus on emergencies (such as Cherry Home, Home sensing technologies, etc. that monitor the elderly 24*7) with community-based systems and products that focus on the day to day life. An example of the latter is a model being used in France [8] where postal workers, while delivering mail, inquire about the well-being of the elderly and inform the program’s subscribers if their elder relatives are in need of assistance (more such examples are Meals on wheels³, The Beacon Hill Village⁴, Age Wells that promote a healthy social and physical lifestyle). This approach is grounded in the local context as Éric Baudrillard, the director of the program stated that there has always been a “natural link between the French and their postal workers”. This analysis of different approaches to elderly care helped inform my hypothesis as stated above.

To test my hypothesis and to take a step towards an alternate design approach as suggested, I have designed a local community-based tool that is focused on ‘interdependent’ day to day life. It encourages neighbors to interact with each other through art pieces that are displayed in their shared galleries. The idea is to create interdependent art with a special focus on their day to day activities and a means to check up on each other on a regular basis. To evaluate my hypothesis, I shall install the system in a community and perform semi-structured interviews with the users of the product. Further, I will also observe the participation patterns of various users and the results will be used to iterate my hypothesis.

³ Meals on Wheels: <https://www.mealsonwheelsamerica.org/>

⁴ The Beacon Hill Village: <https://www.beaconhillvillage.org/content.aspx?sl=1513388909>

⁵ Age Well: <https://www.agewellglobal.com/>

4. CONCLUSION

It is important to be there for your loved ones in case of an emergency and thus designing the technological products to enable that. However, our desire to design products that can cater to any need on a 24*7 basis, for anyone, does not take into account the contextual nature of privacy and values, which may lead to ‘undesirable’ outcomes. I suggest that instead of designing for emergencies and independence while compromising the privacy of the elderly, the designers should aim to design for interdependence and day to day well-being. Such models for elderly care with a focus on ‘interdependence’ will be grounded in the local and contextual interactions and relationships. This allows for a pluralistic understanding of care and privacy as supported by the situation at hand. The real questions to consider are: “How can we make the lives of the elderly better when they have not fallen and are sitting idle in their houses?” “How can we punctuate their lives, so they have something to look forward to in their day?” “How can we better equip them to form and be part of meaningful relationships that would automatically lead to meaningful care?”

5. REFERENCES

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