SES-1928547, Future Matrix of Care: Communities, Networks, and Technologies
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Motivation & Goals

The number of older adults with dementia in the US is projected to grow from 7 million to 14 million by 2060. This will intensify the pressure on an already overworked and undervalued workforce, the majority of whom are women, minorities, and immigrants. Intelligent interactive technologies promise to decrease the care burden but may also increase social and economic inequalities faced by these workers.

We engage with home workers who provide dementia care to develop an empirically-grounded conceptual model of technologically supported care as community-based work that can guide the design of future sociotechnical infrastructures to deliver care.

Methods

In Fall 2021, we conducted four codesign workshops with 6 home care of people with dementia. Participants discussed the rewards and challenges of their work; they then watched presentations about emerging technologies (see Fig 1) and speculated about the advantages and drawbacks of using them in home-based dementia care.

Starting in June 2021, we conducted 13 semi-structured interviews with 11 home care workers and one home care agency director. We probed deeper into the technologies that home care workers currently use and their practices of coordination and information sharing.
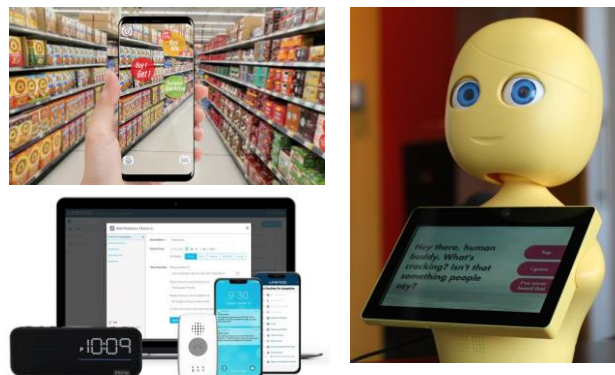

Fig. 1 We presented augmented reality, voice activated assistants, and social robots to workshop participants.
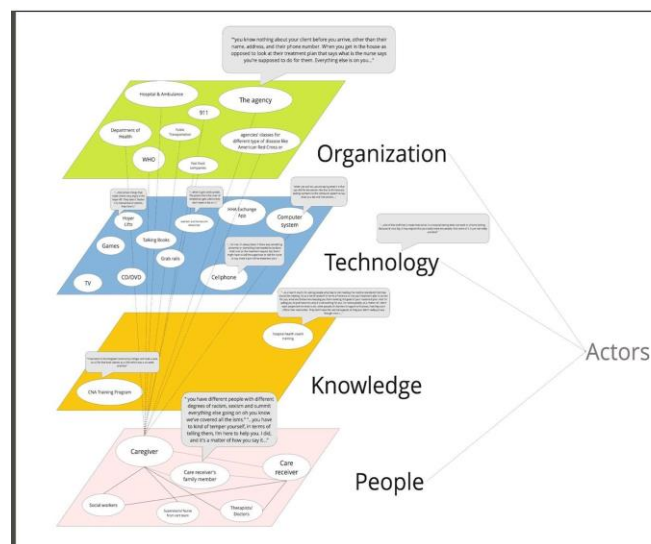

Fig. 2 A sample participant's "matrix of care".

Findings

The matrix of care – Caring for a person with dementia is not the work of isolated individuals; it is a collective endeavor that involves a variety of people, technologies, and organizations, and takes place within a complex regulatory landscape. We have begun to map this "matrix" of care, based on our interviews and co-design workshops, to identify places where communication between different parts of the matrix is not well-supported, resulting in challenges for care workers (see Figure 2 for example).

Importance of continuity care – The ideal home care scenario is long-term care relationships between client and their aides. Aides who work regularly with a client learn their routines and preferences, tknow what to expect from their workday and how to be successful, and can maintain the client's routine without the need for constant explanations. Bridging discontinuities (e.g. when an aide has to cover a shift with a client they don't know) is a major focus of information and coordination work for home care agencies.

Personal safety and social dynamics – The work context for home care is the intimate space of others. In this situation, home care workers can experience threats to their personal safety and that of their clients, as well as a lack of familiarity with the home and its other inhabitants. Information technology might be able to address these concerns through providing situationally relevant information or unobtrusive communication channels..