‘That's Something for Children’: An Ethnographic Study of Attitudes and Practices of Care Attendants and Nursing Home Residents Towards Robotic Pets

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Otherware, Field, Practices

- Our qualitative study is inspired by the ***otherware*** (Hassenzahl et al. 2020) concept in HCI.
- Semi-rural **nursing home** in western Germany.
- **Participatory and auto-ethnographic study,** three weeks (+ two weeks of preparation / methods training for care-home staff).
- Focus on **attitudes and experiences** of nursing-home residents and staff regarding off-the-shelf (Weibert et al. 2017) **robotic cats and dogs**.

→ **Attributions** of robotic pets **change** depending on the situation, context, group dynamics, and related biographical and work-related concepts.

Digitally Supported Ethnography

For the practical implementation, we used approaches of digital ethnography, because we could not be on site ourselves (Pink et al. 2015):

- **Digital processes of data collection**
- **Preparatory video calls with staff**
- **Walking interviews after the usage phase**

Main participants on staff side

Participant	Sex	Age	Role
1	Male	32	Care attendant supervisor
2	Female	49	Care attendant
3	Female	62	Care attendant
4	Male	26	Care attendant

Care attendant = sozialer Dienst

Impressions



Left: a robotic cat (silver); center: a robotic dog (gold); right: a robotic cat (orange tabby).

Emotional labor and emotional burden

The use of the robotic pets poses **ethical challenges** and additional **responsibilities** to the care attendants:

"Then I already noticed how the woman, [name 2] [00:07:48], always looked from the side [...] and always said: "That doesn't suit me, that doesn't suit me." And then it got worse and worse. She looked at it [here robotic cat] with envy and at some point, she jumped up and they [here the residents] started a really heated argument: "That's mine, you can't have it", and that was really bad. [...] So that hurt my soul that I had to take [...] the [robotic cat] away."
(**Interview: Care Attendant 2**)

Creating mutual learning spaces

Care attendants also told us that there is still much to learn and much to explore in terms of possible long-term usages of robotic tools and their integration into care processes.

"How to behave in the situation, whether you prefer to do this constantly in individual situations or with an entire group, how to deal with the dynamics. These are all things that can be better explained by such studies at some point."

(Interview: Care Attendant 4)

Negotiation and learning spaces for care

- Residents more often responded that robotic pets are something for people with severe dementia or for children. However, at the same time had joy in the interaction with the care attendant and the pet.
- The care attendants see themselves at the beginning of a learning process, which still has to be narrowed down by establishing additional learning spaces.

→ Negotiation and joint learning spaces between researchers, care staff and residents -> co-learning spaces to stimulate organizational reflection and development in care environments

Learning spaces needed for the co-creation of robotic systems in care

- Specifically for robotics there is a large distance between actual and future practices (Ehn 1992). We did so by introducing off-the-shelf technology and by thus opening up a joint learning space for all participating actor groups.
- HCI researchers have a big responsibility within their work as they co-shape images of age/ing and of good care
- We have been able to gain a better insight into complex care contexts and can now use this knowledge to contribute to the discourse on the necessity of new design paradigms for care environments (regarding ways of handling, ethical problems, approaches to care, etc.).

References

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Thank you very much for your attention!

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Data

The numbers of audio and video materials provided and transmitted via the smartphones

- Total number of **photos: 67**
- Total number of **text messages: 4**
- Total number of **videos: 25**
- Total duration of the **videos = 29:36 (min : sec)**

Setting and Methods

	Phone 1	Phone 2	Phone 3	Phone 4
Number of photos	5	16	20	26
Total number of photos: 67				
Number of text messages	2	0	1	1
Total number of text messages: 4				
Number of videos	1	4	6	14
Total number of videos: 25				
Duration of the videos (min : sec)	01:13 ∑ 01:13	00:06 00:10 00:28 00:30 ∑ 01:14	00:18 00:17 00:19 00:11 00:17 00:20 ∑ 01:42	02:37 00:30 01:10 02:32 02:38 02:10 01:41 03:26 04:06 00:15 00:04 00:58 01:38 01:42 ∑ 25:27
Total duration of the videos 01:13 + 01:14 + 01:42 + 25:27 = **29:36** (min : sec)				