

## Panel 58. Caring for “Care”: Feminist STS Perspectives on Re-searching Robots and AI

Convenor:

*Stevienna de Saille, University of Sheffield*

**Keywords: Feminist STS, health and social care, ontologies of care, robots and AI**

In some languages, such as Italian, there is a distinction between caring for/caring about (“cura”) and providing health or social care (“assistenza”). In other languages, particularly English, “care” can become a catch-all encompassing the emotive, the transactional and the systemic. This semiotic slippage, particularly in discussions about emerging technologies such as robots and AI, means that things which cannot actually care are increasingly touted as the solution for “the crisis of care” for disabled and older people, ie. those who advanced capitalist societies tend to care the least about.

Based on the work of Tronto and Bellacasa, this panel asks how “care” becomes constructed, deconstructed, entangled, detangled, implicated and alienated in these discussions in different languages and different cultural contexts. It asks how those of us doing empirical research on the use of robots and AI in care can develop scholarship that uses feminist STS sensibilities, paradigms and practices to inform our participation. How can the confluence of the robotic, the human and the social be studied with care, when neither the problems, context, purpose nor users are well defined and the language of “care” is not universal? What other forms of knowledge production could we utilize as an antidote to instrumental engineering imaginaries, particularly where these claim to be solving the “problem” of caring for societally vulnerable groups? How do we as STS scholars work against technosolutionism, and avoid being co-opted into instrumental imaginaries when working on interdisciplinary projects? In other words, how do we care for “care”?

This panel invites papers which discuss these and similar questions about mobilizing STS sensibilities to help transform and make visible the care in care robotics, in ways which can shape and influence the trajectory of engineering projects. We are especially interested in qualitative empirical research that examines the positionality and reflexivity of STS scholars with regard to the study of “robots/AI for care”, as well as those examining the new and experimental forms of normativity and relationality which are beginning to arise around robots, AI and human engagement in this field. Contributions may include (but are not limited to) those which discuss “care” as:

- an ontological object, an ontology, an object conflict;
- an epistemology;
- a verb, an action;
- an ethics, a politics, a moral imperative, a normative orientation;
- a set of relations, a system;
- a metaphor;
- a synonym for maintenance, responsibility, nurturance...
- or any other way of approaching robots and AI in care as a topic for (feminist) STS.



12 JUNE 2025 11.30 - 13.00

## ID 351 - From Theory to Prototype: Designing Care Robots for Older Adults through feminist STS perspectives

Ralf Vetter, ITU – Interdisciplinary Transformation University Austria

Anna Dobrosovestnova, Technische Universität Wien

Christopher Frauenberger, Interdisciplinary Transformation University Austria

**Keywords: Care Robots, Good Care, Matters of Care, Participatory Design, Design Process, Speculative Design**

The imaginaries of robotic technologies designed to address tensions in elder care, such as staff shortages, loneliness, and physically demanding tasks, raise fundamental questions about how robots enter the socio-material fabric of care. Typically introduced from functionalist or instrumental perspectives, robots risk reducing care into isolated, mechanisable tasks. However, care is relational, emotional, embodied, and shaped through human and non-human actors. In the project "Caring Robots//Robotic Care", we draw on feminist STS perspectives of care to re-envision our design processes of robots.

Building on Maria Puig de la Bellacasa's Matters of Care, we understand care as an entangled practice, both material and affective, carrying significant ontological, epistemological, and ethical implications. Conceptualising care as an ongoing intervention in human and non-human relations reframes robots as socio-material actors that shape relationalities, reconfigure labour, and mediate ethical dimensions. Understanding how to care best demands a dual approach: examining the status quo and desires from situated perspectives while also speculating on alternative futures. This underscores the active role researchers and designers play in shaping the technological mediation of care.

Our methodological framework highlights the performative, relational, and subjective facets of care by emphasizing co-creation, critical reflection, and speculation. Using participatory design (PD) approach, we collaborate with care recipients, caregivers, and other stakeholders in iterative processes that prioritise what care robots should do over what they could do. We draw on speculative design, to shift inquiries from problem-solving to question-asking. This allows us to engage with the inherent tensions and ambiguities when robots enter everyday care.

In our project, we first conducted ethnographies in geriatric care contexts capturing how care is embodied, negotiated, and relationally enacted through trust, emotional reciprocity, and routines. Next, we explored which and how participants envision relations with robots through engagement with technologies such as computer vision and large-language models. We then worked with care workers and experts co-create and enact care scenarios with low-fidelity prototypes, critically analysing their potential to configure meaningful care relations. Currently, we are co-designing working prototypes for real-life settings, assessing how they intervene in care relations.

Our contribution will demonstrate how feminist STS and relational ontologies reorient designing care robotics towards ethical and situated interventions. Our approach foregrounds care robots as an ongoing negotiation of relations, ethics, and socio-material entanglements rather than a fixed system to be optimised. By integrating participatory and speculative design, we not only reconsider how care robots are developed but also trace evolving care configurations such designs might enable or constrain. Looking forward, we intend to explore how our prototypes function over time, addressing tensions between imagined interventions and realities and constraints in care contexts.



12 JUNE 2025 11.30 - 13.00

## ID 371 - Robot imaginaries and ontologies of "care"

*Stevienna De Saille, University of Sheffield*

**Keywords: feminist STS, robots and AI, health and social care, sociotechnical imaginaries, matters of care**

At present, millions of pounds are being poured into research on robots to ameliorate the shortage of workers for social care for health-related issues. Amongst those tasked with developing these technologies, however, social questions tend to fall into two categories: how to make the robots "trustworthy" (ie. reliable, safe, effective) and how to make them desirable (ie. functions, aesthetics, cost). What is not generally asked is "How might X robot fit (or not) into the health-social care system we presently have and how will that reconfiguration affect what it means to care?"

This paper addresses that question using data from two connected projects, both funded by the UKRI-Trustworthy Autonomous Systems hub. In "Imagining Robotic Care" we examined the socio-technical imaginaries (Jasanoff & Kim 2009) held by care system stakeholders, care users, publics 18-75, academic researchers and roboticists in the UK with regard to the use of robots to fill social care needs arising from health issues. In our follow-on project, "Mapping Trustworthy Systems for Robots in Social Care" we brought a dressing robot currently in the early stages of development to two day-long workshops with care managers and workers from different local councils, developing an interactive, 3D map of their adult social care system to explore what adaptations to robot and system might be needed for it to be productively deployed.

Drawing from the work of Joan Tronto, Maria Puig de la Bellacasa and Annemarie Mol, this paper discusses the ontologies of "care" revealed through thematic analysis of the narratives employed by this broad range of stakeholders. How do different conceptions of "care" – as a service, an emotive response, a reciprocal relationship, a task to be performed – shape the sociotechnical imaginary of a useful robot, and how does this differ from the imaginary embedded in policy documents directing funding towards the development of robots and AI for adult social care? Is it even possible to develop an ontology of care which can be translated into machine design specifications, without advancing an agenda that reduces "care" to its most transactional elements? The results aim to contribute to the development of "matters of care" (de la Bellacasa, 2017) as a theoretical paradigm for feminist STS, as well as to the practical design of robots for care.

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## ID 674 - Technosolutionism and the Care Crisis: AI, Platformisation, and the Feminist Politics of Care

*Angelica Martinez Ochoa, University of Texas at Dallas*

**Keywords: FemTech, Digital Platforms, AI and Care, Matters of Care, Technosolutionism**

In the ongoing U.S. care crisis, the FemTech industry has received unprecedented investment, positioning technology as a solution to labour shortages and care infrastructure gaps. In 2024, the Biden administration allocated \$1 billion to women's health research, while venture capital firms invested another \$1 billion across 111 FemTech deals. Despite this surge in funding, the crisis persists. This paradox raises urgent questions about how technological imaginaries frame care as a "problem" to be solved and how AI-driven solutions risk reinforcing, rather than alleviating, structural inequalities.

This paper examines how AI-driven FemTech platforms conceptualize and intervene in care through case studies of maternal well-being technologies: Emma, a Generative AI assistant evolving from Social Mama, a platform combating maternal isolation; Maven Clinic, the largest virtual maternal health provider in the U.S.; June Care, a childcare-sharing platform; Nanni AI, a cry detection app that "translates" a baby's needs; and Sonio, an AI-powered voice recognition tool for OBGYN ultrasound reporting. While all five platforms employ AI to mediate care, they articulate distinct visions of care: Nanni AI and Sonio frame care as voicing authority, using AI-powered sound recognition to enhance parental and medical decision-making. AI is not



just facilitating care but reshaping which forms of knowledge – baby cries, ultrasound interpretations, medical guidance, or childcare exchanges – are legitimised within an increasingly technologized landscape.

Using discourse and platform analysis, this research interrogates how these technologies frame care at the intersection of digital platforms, economic investment, and maternal responsibility. It situates these platforms within broader historical patterns of technologized care, drawing on Jennifer Denbow's (2024) analysis of how policy shifts in the Reagan and Nixon eras reconfigured care as an individual burden while expanding private investment in applied technologies. Additionally, it builds on José van Dijck et al.'s (2018) work on platformisation to examine how digital infrastructures shape expectations around maternal responsibility.

This study engages feminist theories of care, particularly María Puig de la Bellacasa's (2017) concept of "matters of care," which challenges the instrumentalization of care by foregrounding its affective, ethical, and relational dimensions. Rather than treating care as a problem to be optimised, this framework situates it as a practice entangled with social, material, and political infrastructures. Through this lens, the study explores how AI-driven care technologies construct new norms of relationality between caregivers, care receivers, and institutions and how these digital interventions reconfigure both the labour and meaning of care.

Further, this research examines who ultimately benefits from AI-driven care technologies and in what ways. By analysing the beneficiaries – whether investors, platform owners, employers, or users – this study sheds light on dominant understandings of care within FemTech, which often mobilizes care under the narrative of improving women's wellness and health.

This research contributes to feminist STS debates by asking: What imaginaries of care are embedded in AI-driven platforms? How do these technologies construct new normative expectations around care relationships? By moving beyond critiques of AI's discursive framing to interrogate its material and economic effects, this paper offers a nuanced analysis of the tensions between investment in FemTech and the persistence of the care crisis.

