Sociotechnical Systems of Care

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Abstract

The goal of this workshop is to bring together CSCW audiences who engage in studies and interventions related to care work. Our aims are to understand how care has been conceptualized in the extant CSCW community, identify core issues and concerns, and formalize how CSCW concepts could be used as a lens to inquire into this domain. We will explore the following themes: the invisibility of care work; the evolution of care labor; how care can often be sentimentalized, formalized, or infantilizing; and how we can attend to—and design for—the multiple experiences of care. Participants of this workshop will be invited to participate in future journal special issues and external grant writing activities.

Author Keywords

Design; Care Ethics; critical theory; feminist HCI; sociotechnical systems; value-sensitive design

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

This workshop will be devoted to understanding how notions of "care" shape the methods, contexts, and practices of CSCW researchers. By shifting focus from care (a term that often connotes particular contexts for research) to care-ing (practices that involve care), we

will trace patterns across multiple genres of research: from those that we typically associate with care-work (e.g., healthcare, eldercare, childcare) to those in which care motivates research objectives (e.g., social justice, sustainability) and perspectives (e.g. postanthrocentrism, feminism). This shift brings with it an expanded notion of how we might understand and design with care by framing care as a term that congeals certain sets of practices and orientations to the subjects of research. As she describes an extension to Latour's "matters of concern" to "matters of care", Maria Puig de la Bellacasa writes that care "adds a strong sense of attachment or commitment to something. Moreover, the quality of care is more easily turned into a verb: *to care.* One can make oneself concerned, but 'to care' more strongly directs us to a notion of material doing" [10]. With this in mind, the aim of this workshop is to bring multiple practitioners to question how CSCW researchers practice and can practice "caring" within multiple realms of research. For instance, how might insights from studies of caregiving in healthcare settings apply to research involving care for the environment? How can care shape how our research is practiced and presented? How might care force us to confront and motivate action in areas for which we have long been concerned?

This workshop builds on and extends a workshop on everyday care in communities held at the DIS 2018 conference in Hong Kong, which explored the theme of care in the design of technologies for community interactions [14]. Through this workshop, participants developed a series of questions that designers of community technologies can ask themselves during the design process to ensure their systems ultimately support care practices. These questions were categorized into preliminary clusters and themes, which included, among others: care as reciprocal; care as power; and the care-related tensions of resources, boundaries, and self-care. The proposed workshop seeks to extend those considerations to domains of relevance for CSCW, while simultaneously broadening the scope of the themes and lenses made possible through the concepts of care and caring. We invite both contrasting and complementary themes to enrich this conversation.

One way of orienting the concepts of care and caring toward CSCW includes working to understand how the design and study of collaborative, cooperative, and multi-user sociotechnical systems can engage deeply with the complex interpersonal and social needs of those who are implicated in those systems. Using a healthcare setting as an example of how care-work is typically considered, a first-pass list of stakeholders would include:

- Patients;

- Healthcare staff; and

- Primary caregivers (loved ones, family, friends, neighbors).

However, including a broader understanding of care as a lens to investigate this setting can help us reconsider how that stakeholder list should also include:

- Those whom the cared-for are, in turn, caring for (their dependents, their friends, the loved ones they comfort in implicit ways, and their active roles in their own care [8]);

- The healthcare technologies themselves (especially as individuals develop interdependencies with those healthcare technologies and their related data [2, 3, 5]);
- The designers of healthcare technologies and systems (see [6], for a discussion of the care-based responsibility that designers have toward those for whom they design);
- Health policy decision-makers, who have a responsibility to those depending on them;
- And other, related influencers for the sociotechnical systems through which we engage.

We also want to broaden our understanding of care labor and caring beyond medicalized and formalized understandings of care. For example, we can consider the covert and implicit care that individuals within a friend group show toward each other that help generate feelings of belonging and acceptance [1]. As interpersonal and community interactions are increasingly facilitated through the technologies we design, how can we ensure that these covert, implicit interactions are still able to take place? How might we be able to improve their efficacy? To paraphrase Joan Tronto, the more we are able to recognize the inherent interdependence of all people, the more we will be able to develop a caring citizenship [16].

Extending this line of thinking, we believe we can leverage care and caring to understand our own research practices, as well as how those practices are presented. This includes deepening and broadening our stakeholder lists, as in the healthcare example above, but it also includes:

- Re-examining our interests and our engagements in our research contexts, from a personal level;
- Considering the types of care that our participants demonstrate for us and for our research [15];
- Seeking methods for attending to, tracing, and describing complex or "wicked" problems where solutions are nonexistent or troubling [12];
- Seeking methods and practices that extend care to the more-than-human human to foster more livable futures [4, 7].

How we, as CSCW and sociotechnical researchers, can build on understandings of care and "care-ing" in these contexts and domains is the focus of this workshop.

Workshop Theme(s)
We invite position papers that address one or more of the themes listed below. Activities and discussions for the workshop will be aligned with accepted submissions.

- **The invisibility of care work**. This theme addresses both the care work between people, as well as the care work entangled in making technologies (such as healthcare technologies) function. Consider how the invisibility of care work changes as the individual performing the labor shifts; who is most likely to become overburdened, and what other sociotechnical elements (e.g., maintenance schedules, transportation requirements, etc.) are implicated in this shift of labor? Relatedly: how can we design for invisible forms of care work that are importantly informal? [11].
- **The evolution of care work**. How has care work changed, both in terms of the actual actions of care

work as well as its perception, and how will it change? Consider how this change can be conceived of both historically as well as personally. For example, how can care technologies change over time with the individual [3], such as in the face of increasing or declining technical capability? How might we broaden our thinking around care work to include caring actions oriented toward a community? [9, 13].

- **Care as sentimentalizing, formalizing, or infantilizing**. Technologies developed for healthcare settings can often be built upon infantilizing assumptions, including assumptions that violate a care recipient's privacy and autonomy. Systems developed outside of a healthcare setting, such as Amazon's Alexa, are being appropriated for healthcare practices as a way to avoid such infantilization. How can we ensure that built-for-purpose care technologies are designed without these assumptions? What other technologies can be appropriated to counteract designed sentimentalization and infantilization?

- **Attending to and Designing for Experiences of Care.** How might we attend to the experiences and emotions associated with caregiving and care-receiving as a resource for design, rather than qualities to delegate away? How does a focus on "empathy" shape orientations towards care of users and things? How might experiences that exist at the peripheries of care—such as vulnerability, humility, and precarity—be embraced in the design process?

While addressing these workshop themes, we also encourage prospective participant position papers to consider concepts that exist in productive and

generative tensions with care and caring in CSCW and HCI contexts.

Workshop Goals

The primary goal of this workshop is to foster *interdisciplinary* discussion and engagement around care and "care-ing" in our research settings. We will solicit submissions from researchers and practitioners within HCI, CSCW, STS, and other related fields. Based on these interdisciplinary discussions, we will choose a venue for publishing an initial report of our discussions and engagements. This initial report will be leveraged to organize a special issue for a journal, such as Science, Technology, and Human Values (ST&HV), ToCHI, IJHCS, or HCI.

Workshop Recruitment

To help broadcast the workshop and generate interest, a website will be created at https://hcdd.purdue.edu/cscw2018_sociotechnical_care . This website, along with the Call for Papers, will be distributed through CHI-Announcements, PhD-Design, the ACM SIGCHI Facebook page, and the CSST Facebook page, among others.

Prospective participants will submit a 3-4-page position paper in the ACM extended Abstract format. Submissions will be judged by the workshop organizers based on promise of facilitating interdisciplinary conversation. We encourage position papers to address the workshop themes through one of the following ways:

- Introducing theoretical or philosophical framings and perspectives from other fields that will be of

relevance to—or help broaden—the workshop themes.

- Examples and counterexamples that push the conversation in a particular direction.
- Methods for reflecting on care, or revealing care that is often hidden in or obfuscated by our sociotechnical systems.

Workshop Activities

Prior to the workshop, accepted participants will be added to a shared Google Drive folder, through which the pre-workshop and the during-workshop activities will be facilitated. Pre-workshop activities will include participants mapping out their current understanding for how care and "care-ing" fit into their current research practices, relying on the prompts developed through the DIS 2018 workshop. These maps will be used to facilitate the activities on the day of the workshop.

This one-day workshop will entail the following activities:

First morning session. Disciplinary lens - What is influencing your perspective? We will engage with the multiple lenses and approaches for including concepts of care in our research practices. This will serve to broaden our understandings of how we can leverage these concepts in our own research, as well as to help us reach consensus about what we mean by "care" for the rest of the day's discussions.

Second morning session. Methodological challenges - Where has care been challenged by approaches and methods used? We will push our thinking to consider

how we practice research, and what we might need to change—personally, institutionally, and systemically—to approach our research from positions of care.

First afternoon session. Thematic alignment of care. We will aim towards a definition and set of perspectives for other researchers to cite and align their perspectives.

Final afternoon session. Journal special issue creation. We will write the CfP, identify where to elicit papers, and determine collaborations for paper submissions between workshop attendees.

Workshop wrap up and (optional) dinner.

Required facilities

This workshop will require typical conference workshop facilities, such as a room to hold between 12 and 20 people (including the organizers), power sockets for laptops, whiteboards or similar collaborative workspaces, sticky notes, and AV equipment for presentations.

Organizers

Austin Toombs (toombsa@purdue.edu) is an Assistant Professor in the Department of Computer Graphics Technology at Purdue University. He studies the impact that digital technologies have on how communities develop, are maintained, and foster (or not) strong interpersonal relationships, including how those technologies are implicated in explicit and implicit forms of care and social support.

Laura Devendorf (laura.devendorf@colorado.edu) is an Assistant Professor in the Department of Information Science and ATLAS Institute Fellow at the University of

Colorado Boulder. She is a designer and researcher studying how technology shapes our relationships to ourselves, cultures, and environments through a feminist lens.

Patrick C. Shih (patshih@indiana.edu) is an Assistant Professor in the Department of Informatics at Indiana University Bloomington. His research focuses on the study of sociotechnical systems and mechanisms to enhance physical and mental wellbeing and to facilitate civic engagement and environmental stewardship.

Liz Kaziunas (ekaziunas@gmail.com) is a postdoctoral researcher at the AI Now Institute. Her research investigates the practices and politics of care in an age when data-driven decision making is increasingly used in health settings, including the labor involved in maintaining and interacting with these systems and new forms of patient expertise required to live with algorithmic models of medicine.

David Nemer (david.nemer@uky.edu) is an Assistant Professor in the School of Information Science at the University of Kentucky. His research and teaching interests cover the intersection of ICT for Development (ICT4D), science and technology studies (STS), and human-computer interaction (HCI). Nemer is an ethnographer who is specifically interested in studying ICTs in less industrialized parts of the world to understand the effects of ICTs on the development and empowerment of marginalized communities.

Helena Mentis (mentis@umbc.edu) is an Associate Professor in the Department of Information Systems at the University of Maryland, Baltimore County. She investigates how collaboration and coordination in healthcare contexts are achieved and better supported through technology, including how patients are empowered in their own care.

Laura Forlano (lforlano@id.iit.edu) is an Associate Professor of Design at the Institute of Design at Illinois Institute of Technology. Her research is focused on the aesthetics and politics at the intersection between design, emerging technologies and futures.

Acknowledgements

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