



HAL
open science

Men's perspectives from reproduction to parenthood: A critical feminist HCI exploration of men, masculinities and fatherhood in and with intimate digital technologies

Lena Rechberger

► **To cite this version:**

Lena Rechberger. Men's perspectives from reproduction to parenthood: A critical feminist HCI exploration of men, masculinities and fatherhood in and with intimate digital technologies. Doctoral Consortium at the sixth decennial Aarhus conference: Computing X Crisis, Aug 2025, Aarhus, Denmark. <hal-05191148>

HAL Id: hal-05191148

<https://hal.science/hal-05191148v1>

Submitted on 29 Jul 2025

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

Men's perspectives from reproduction to parenthood

A critical feminist HCI exploration of men, masculinities and fatherhood
in and with intimate digital technologies

Lena Rechberger
Department of Informatics and
Media
Uppsala University
Uppsala, Sweden
lena.rechberger@im.uu.se

ABSTRACT

Nowadays, even the most intimate areas of our private life are mediated by digital technologies, including commercial applications for reproductive health, pregnancy and childcare. These areas have historically been seen as women's responsibilities, but men are becoming increasingly involved as they take on more active roles in parenthood. However, within the discipline of Human-Computer Interaction (HCI), studies have focused primarily on motherhood and women's experiences with reproduction, leading to a research gap on men's perspectives. This is why in my PhD project I aim to explore how intimate digital technologies mediate and co-construct contemporary experiences of reproduction and fatherhood. To achieve this, I will put user experiences into conversation with the interaction design of commercially available applications a) to study men's perspectives in and with intimate digital technologies used in the context of reproduction and fatherhood; and b) to provide a critical feminist analysis of the socio-cultural entanglements of these technologies with gender relations. I plan to employ a qualitative approach including interviews, walkthrough analyses and digital ethnography, culminating in a series of co-design workshops. Note: this text represents the research proposal for my dissertation and is therefore subject to change.

Computing (X) crisis: The crisis in computing I am addressing in my work is one of continuing gender inequality in the private sphere, and the role of digital technologies in reproducing rather than challenging gender norms in their design. With my research, I aim to contribute to the field of computing and HCI by introducing a unique, but currently missing perspective on men and masculinities within the context of reproduction and fatherhood. Therefore, my proposal in relation to the conference title is "**computing THROUGH crisis**" – meaning that I believe we can **work through the crisis** of social inequality and towards

a better future if we recognize computing technologies as central actors in shaping these complex and intimate socio-cultural realities of gender; take a critical feminist perspective in studying the gendering effects of technologies; and together imagine an alternative future of computing, in which technologies support rather than hinder our efforts to achieve gender equality.

CCS CONCEPTS

• Human-centered computing → Human computer interaction (HCI) → Empirical studies in HCI

KEYWORDS

Intimate digital technologies, Men, Masculinities, Reproduction, Fatherhood, Feminist HCI

ACM Reference format:

Lena Rechberger. 2025. Men's perspectives from reproduction to parenthood: A critical feminist HCI exploration of men, masculinities and fatherhood in and with intimate digital technologies. Aarhus '25 Doctoral Consortium, August 17th, 2025, Aarhus, Denmark.

1 Introduction

Digital technologies have become an integral part of our everyday lives, families and relationships. With the rise of tracking technologies and mobile applications it is now common for people to collect personal data about themselves and their lives for a variety of purposes [14] and this includes even the most intimate areas of life, such as (reproductive) health and bodies, pregnancy and parenting. With this in mind it is safe to say that many of our intimate everyday experiences are mediated by technology, or to take it even further - we as humans are entangled with our technologies [15]. Following Blackwell [7], we can see how "technology becomes a lens through which to understand being human in a changing world."

One aspect of our world that is changing are gender relations, as we move away from the historical division between reproduction and production. A majority of women in western countries are participating in the labor market and men increasingly take on more responsibility in the home and with childcare, rather than acting as the main breadwinner. This can be

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored.

For all other uses, contact the owner/author(s).

Aarhus '25 Doctoral Consortium, August 19th, 2025, Aarhus, Denmark

© 2025 Copyright held by the owner/author(s).

attributed to changing paternity leave policies as well as individual and societal expectations concerning contemporary fatherhood. But still, men are far from taking on the role of an equal partner, as is evident when it comes to parental leave taking, childcare, housework and mental load [e.g. 10, 11, 28, 32]. This is even true for the Nordic countries, like Sweden [27, 30], which are often regarded as role models on gender equality. Men are also considered secondary when it comes to reproduction, despite an emerging body of research on paternal effects showing that men's health, lifestyle and age matters not only for fertility, but also for the health outcomes of their children [26]. This shows that gender equality still faces significant challenges, especially considering the area of reproduction and parenthood, which is characterized by biological realities on the one hand, and essentialized socio-cultural assumptions and gendered norms on the other hand.

Understanding technology and society as mutually shaping each other [25], I am reasoning that digital technologies as socio-cultural artifacts might reflect some of these societal conditions in their design and therefore shape user's perceptions of and experiences with them, as well as enable or restrict certain courses of action. Following Bardzell's [6] call for Feminist HCI, there have been increasing numbers of studies on women's (reproductive) health and motherhood in HCI, but studies on men and masculinities have been mostly lacking so far. This is why in my PhD project I plan to explore the men's perspectives and their use of digital technologies from reproduction to parenthood. Raising the question of men in this particular context originates from a social justice motivation in line with Feminist HCI, as I believe that an improved understanding of men's perspectives on intimate digital technologies can ultimately lead to a more gender equal distribution of reproductive and parental responsibilities.

1.1 Related work

It has been over ten years ago that HCI put motherhood and related technologies on the research agenda, focusing on issues such as pregnancy and care-taking [5]. Despite acknowledging the importance of such major life transformations for both women and men, there is little research on fathers, with a few notable exceptions. Ammari and Schoenebeck [2, 3] published on fatherhood and Social Media, and Lu et al. [23, 24] on social aspects and collaborative pregnancy tracking. Others have taken a design-oriented approach, for example designing for fertility tracking as a shared experience [17] or creating wearable artefacts to share the pregnancy experience with the father/partner, e.g. [9] and [21]. Researchers in media and communication studies and gender studies have also studied related applications, such as Langton's [19] PhD project on baby tracking applications or Thomas et al.'s [31] discourse analysis of fatherhood in pregnancy apps. These are just a few examples, as I am currently working on compiling a comprehensive overview of related work from various relevant disciplines. However, based on the preliminary results so far it appears that there is a research gap in HCI on men's perspectives on intimate digital technologies used in the context of reproduction and fatherhood.

1.2 Aim and research question

The aim of my dissertation is to explore how intimate digital technologies mediate and co-construct contemporary experiences of reproduction and fatherhood. I plan to put user experiences into conversation with the interaction design of commercially available applications to study men's perspectives in and with intimate digital technologies used in the context of reproduction and fatherhood; and to provide a critical feminist analysis of the socio-cultural entanglements of these technologies with gender relations. To operationalize this, I ask the following questions:

1. RQ: What is men's perspective on the use of digital technologies for reproduction and parenthood?
2. RQ: How is the design of these artefacts entangled with socio-cultural norms related to reproduction and parenthood?
3. RQ: How can we design intimate digital technologies that support the unique needs and experiences of men/fathers during conception, pregnancy and fatherhood?

The dissertation is planned as a compilation thesis and it will consist of five studies exemplifying these overarching questions, which are described below. The studies are conceptualized as following a typical 'reproductive timeline', covering experiences and technologies related to fertility and (pre-)conception, pregnancy, the newborn stage and fatherhood and culminating in a co-design workshop exploring alternative design futures. The red thread connecting all studies is a critical feminist perspective in studying men and masculinities, which means that I not only want to understand the status quo, but also criticize it and look at potential alternatives, in particular from a gender equality perspective.

I aim to contribute to the field of HCI in multiple ways: first, by suggesting to put men's reproductive health and fatherhood on the research agenda; second, by introducing theoretical concepts from Critical Studies of Men and Masculinities (CSMM) into the field; third, through conducting empirical studies focusing on men and fathers, therefore centering them as a user group of intimate digital technologies and providing an improved understanding of their role for gender equality. The geographical context is limited to the Nordic countries, in particular Sweden, as this provides the cultural background for studying men's increasing engagement in reproduction and parenthood based on a shared understanding of gender equality as a societal goal.

2 Theoretical framework

Due to the interdisciplinary nature of HCI and of my particular topic, I situate my research on the cross-section between feminist HCI, critical studies of men and masculinities (CSMM) and (feminist) science and technology studies (STS).

Many of the onto-epistemological perspectives and entanglement theories Frauenberger [15] picks up on in his proposal of a fourth wave in HCI resonate with my understanding of humans and technology in the world, especially within the

context of intimate digital technologies. This includes for example a relational ontology, questioning the inherent separateness of humans and technology and emphasizing the importance of understanding the world as a socio-material configuration [15]. So far, I have started to engage with Actor-Network Theory, Agential Realism and socio-materiality, figuring out how I can think with these perspectives to make sense of my empirical material. This is also where the connection theoretical connection with (feminist) STS becomes apparent.

In her scoping review on masculinities in HCI, Seaborn [29] points out the importance of recognizing not only women but also men as gendered in order to not conceal men and masculinities and to address men as agents for necessary social change. This in line with basic premises of CSMM, which emphasizes the importance of conducting research on men as gendered beings, as well as seeing men and masculinities as socially constructed in a particular context, and including both the material and the discursive, all while highlighting a critical view on men's position within gendered power relations derived from feminist scholarship [16]. As I position my research within this critical tradition on masculinities and gender relations, I consider my research as following Bardzell's [6] call for including gender perspectives into HCI research.

Within the topical area of men, masculinities and reproduction there is a small range of work to build upon, such as Almeling's [1] historical and political overview of men's reproductive health, Daniels' [12] four common misconceptions about reproductive masculinity and Lohan's [22] theoretical framework, which is "feminism-informed, reflecting on the social shaping of intimate relationships across societies, on the materiality of the body, and on technologies in intimate relationships." She also notes the importance to consider how both the institutional organization of social life and everyday experiences of men are interconnected [22]. As her framework covers central theoretical aspects of my research topic, I will engage with it further to see how I could use it as analytical tool in my own work. I will also consider emergent [18], caring [13] and hybrid [8] masculinities as analytical lens to understand how men/fathers might contest common masculinity ideals and how they develop new masculine identities and practices.

3 Outline of planned studies

Here I provide a short overview and description of the five studies I am planning to conduct:

1. Construction of men's role in fertility tracking/reproductive health technologies

Following Bacchi [4], I ask how fertility tracking apps represent reproduction, and in particular men's role in reproduction, to find out how the 'problem' of reproduction is constructed in reproductive health technologies. For this, I plan to study the design, discourses and visuals used by apps and related

materials such as websites and social media, using Bacchi's [4] 'what's the problem represented to be?' framework to guide my analysis.

2. Men's/partner's experiences of using pregnancy apps

The second study focuses on men's perspectives in the context of pregnancy apps, asking how the partners' experience of pregnancy is shaped by the use of pregnancy apps, and how the partner is addressed in the content and interaction design of pregnancy apps. Here I will put results from an interview study with fathers/partners into conversation with the results from walkthrough analyses [20] of pregnancy apps they used.

3. Collaborative use of baby tracking apps by new parents

Moving on to new parents and their shared use of technology in childcare, I will explore these questions: How is the entanglement of baby tracking apps and parent-child relationships perceived by new parents? How might these apps support or hinder an equal distribution of care work? For this, dyadic interviews with couples of newborn babies and their collaborative tech-supported practices will be central.

4. Fatherhood and masculinity on social media

This study considers the importance of representations of fatherhood online, asking how fatherhood and masculine identity is constructed by 'dad influencers' and their communities through the use of social media. Using digital ethnography, I plan to explore why some fathers engage as 'dad influencers', how they portray contemporary fatherhood and masculinity online and what role social media use plays for them.

5. Co-designing alternative digital futures with fathers

Building on the results from previous studies, I want to invite fathers to co-design workshops to tackle the question: How can we design intimate digital technologies that support the unique needs and experiences of men/fathers during conception, pregnancy and fatherhood?

REFERENCES

- [1] Rene Almeling. 2020. *Gynecology: The missing science of men's reproductive health*. University of California Press.
- [2] Tawfiq Ammari and Sarita Schoenebeck. 2015. Understanding and Supporting Fathers and Fatherhood on Social Media Sites. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, April 18, 2015. ACM, Seoul Republic of Korea, 1905–1914. <https://doi.org/10.1145/2702123.2702205>
- [3] Tawfiq Ammari and Sarita Schoenebeck. 2016. "Thanks for your interest in our Facebook group, but it's only for dads": Social Roles of Stay-at-Home Dads. In *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*, February 27, 2016. ACM, San Francisco California USA, 1363–1375. <https://doi.org/10.1145/2818048.2819927>
- [4] Carol Bacchi. 2012. Introducing the 'What's the Problem Represented to be?' approach. In *Engaging with Carol Bacchi: Strategic interventions and*

- Exchanges*, Angelique Bletsas and Chris Beasley (eds.). University of Adelaide Press, 21–24.
- [5] Madeline Balaam, Judy Robertson, Geraldine Fitzpatrick, Rebecca Say, Gillian Hayes, Melissa Mazmanian, and Belinda Parmar. 2013. Motherhood and HCI. In *CHI '13 Extended Abstracts on Human Factors in Computing Systems*, April 27, 2013. ACM, Paris France, 3215–3218. <https://doi.org/10.1145/2468356.2479650>
- [6] Shaowen Bardzell. 2010. Feminist HCI: Taking Stock and Outlining an Agenda for Design. In *Proceedings of the SIGCHI conference on human factors in computing systems*, 2010. ACM, Atlanta GA USA, 1301–1310. <https://doi.org/10.1145/1753326.1753521>
- [7] Alan F. Blackwell. 2015. HCI as an Inter-Discipline. In *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems*, April 18, 2015. ACM, Seoul Republic of Korea, 503–516. <https://doi.org/10.1145/2702613.2732505>
- [8] Tristan Bridges and C. J. Pascoe. 2014. Hybrid Masculinities: New Directions in the Sociology of Men and Masculinities. *Sociol. Compass* 8, 3 (March 2014), 246–258. <https://doi.org/10.1111/soc4.12134>
- [9] Vanessa Julia Carpenter and Dan Overholt. 2017. Designing For Meaningfulness: A Case Study Of A Pregnancy Wearable For Men. In *Proceedings of the 2017 ACM Conference Companion Publication on Designing Interactive Systems*, June 10, 2017. ACM, Edinburgh United Kingdom, 95–100. <https://doi.org/10.1145/3064857.3079126>
- [10] Allison Daminger. 2019. The Cognitive Dimension of Household Labor. *Am. Sociol. Rev.* 84, 4 (August 2019), 609–633. <https://doi.org/10.1177/0003122419859007>
- [11] Allison Daminger. 2020. De-gendered Processes, Gendered Outcomes: How Egalitarian Couples Make Sense of Non-egalitarian Household Practices. *Am. Sociol. Rev.* 85, 5 (October 2020), 806–829. <https://doi.org/10.1177/0003122420950208>
- [12] Cynthia R. Daniels. 2006. *Exposing Men: The Science and Politics of Male Reproduction*. Oxford University Press. Retrieved from <https://doi.org/10.1093/acprof:oso/9780195148411.001.0001>
- [13] Karla Elliott. 2016. Caring Masculinities: Theorizing an Emerging Concept. *Men Masculinities* 19, 3 (August 2016), 240–259. <https://doi.org/10.1177/1097184X15576203>
- [14] Daniel A. Epstein, Clara Caldeira, Mayara Costa Figueiredo, Xi Lu, Lucas M. Silva, Lucretia Williams, Jong Ho Lee, Qingyang Li, Simran Ahuja, Qier Chen, Payam Dowlatyari, Craig Hilby, Sazedra Sultana, Elizabeth V. Eikey, and Yunan Chen. 2020. Mapping and Taking Stock of the Personal Informatics Literature. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 4, 4 (December 2020), 1–38. <https://doi.org/10.1145/3432231>
- [15] Christopher Frauenberger. 2019. Entanglement HCI The Next Wave? *ACM Trans. Comput.-Hum. Interact.* 27, 1 (2019), 1–27. <https://doi.org/10.1145/3364998>
- [16] Jeff Hearn and Richard Howson. 2020. The institutionalization of (critical) studies on men and masculinities. In *Routledge International Handbook of Masculinity Studies*, Lucas Gottzén, Ulf Mellström and Tamara Shefer (eds.). Routledge.
- [17] Sarah Homewood, Harvey Bewley, and Laurens Boer. 2019. Ovum: Designing for Fertility Tracking as a Shared and Domestic Experience. In *Proceedings of the 2019 on Designing Interactive Systems Conference*, June 18, 2019. ACM, San Diego CA USA, 553–565. <https://doi.org/10.1145/3322276.3323692>
- [18] Marcia C. Inhorn and Emily A. Wentzell. 2011. Embodying emergent masculinities: Men engaging with reproductive and sexual health technologies in the Middle East and Mexico. *Am. Ethnol.* 38, 4 (November 2011), 801–815. <https://doi.org/10.1111/j.1548-1425.2011.01338.x>
- [19] Katrin Langton. 2024. Constructing contemporary parenthood in digital spaces: Infant feeding and baby tracking applications and the mediation of Australian parenthood. Doctoral Thesis. Queensland University of Technology. <https://doi.org/10.5204/thesis.eprints.248729>
- [20] Ben Light, Jean Burgess, and Stefanie Duguay. 2018. The walkthrough method: An approach to the study of apps. *New Media Soc.* 20, 3 (March 2018), 881–900. <https://doi.org/10.1177/1461444816675438>
- [21] Jingyu Lin and Danni Chang. 2020. Babe: An Experience Sharing Design for Enhancing Fatherhood During Pregnancy. In *Design, User Experience, and Usability. Design for Contemporary Interactive Environments*, Aaron Marcus and Elizabeth Rosenzweig (eds.). Springer International Publishing, Cham, 87–98. https://doi.org/10.1007/978-3-030-49760-6_6
- [22] Maria Lohan. 2015. Advancing research on men and reproduction. *Int. J. Mens Health* 14, 3 (September 2015), 214–232. <https://doi.org/10.3149/jmh.1403.214>
- [23] Xi Lu, Jacquelyn E. Powell, Elena Agapie, Yunan Chen, and Daniel A. Epstein. 2024. Examining the Social Aspects of Pregnancy Tracking Applications. *Proc. ACM Hum.-Comput. Interact.* 8, CSCW1 (April 2024), 1–30. <https://doi.org/10.1145/3637328>
- [24] Xi Lu, Jacquelyn E Powell, Elena Agapie, Yunan Chen, and Daniel A. Epstein. 2024. Unpacking the Lived Experience of Collaborative Pregnancy Tracking. In *Proceedings of the CHI Conference on Human Factors in Computing Systems*, May 11, 2024. ACM, Honolulu HI USA, 1–17. <https://doi.org/10.1145/3613904.3642652>
- [25] Deborah Lupton. 2014. Apps as Artefacts: Towards a Critical Perspective on Mobile Health and Medical Apps. *Societies* 4, 4 (October 2014), 606–622. <https://doi.org/10.3390/soc4040606>
- [26] Sebastian Mohr and Rene Almeling. 2020. Men, masculinities, and reproduction – conceptual reflections and empirical explorations. *NORMA* 15, 3–4 (November 2020), 163–171. <https://doi.org/10.1080/18902138.2020.1831156>
- [27] Charlott Nyman, Lasse Reinikainen, and Kristina Eriksson. 2018. The tension between gender equality and doing gender: Swedish couples’ talk about the division of housework. *Womens Stud. Int. Forum* 68, (May 2018), 36–46. <https://doi.org/10.1016/j.wsif.2018.01.010>
- [28] Natalia Reich-Stiebert, Laura Froehlich, and Jan-Bennet Voltmer. 2023. Gendered Mental Labor: A Systematic Literature Review on the Cognitive Dimension of Unpaid Work Within the Household and Childcare. *Sex Roles* 88, 11–12 (June 2023), 475–494. <https://doi.org/10.1007/s11199-023-01362-0>
- [29] Katie Seaborn. 2023. Interacting with Masculinities: A Scoping Review. In *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems*, April 19, 2023. ACM, Hamburg Germany, 1–12. <https://doi.org/10.1145/3544549.3585770>
- [30] Statistics Sweden. 2022. *Women and men in Sweden: facts and figures. 2022*. Örebro.
- [31] Gareth M. Thomas, Deborah Lupton, and Sarah Pedersen. 2018. ‘The appy for a happy pappy’: expectant fatherhood and pregnancy apps. *J. Gen. Stud.* 27, 7 (October 2018), 759–770. <https://doi.org/10.1080/09589236.2017.1301813>
- [32] Julie Holliday Wayne, Maura J. Mills, Yi-Ren Wang, Russell A. Matthews, and Marilyn V. Whitman. 2023. Who’s Remembering to Buy the Eggs? The Meaning, Measurement, and Implications of Invisible Family Load. *J. Bus. Psychol.* 38, 6 (December 2023), 1159–1184. <https://doi.org/10.1007/s10869-023-09887-7>