# Digital Housekeeping, Gender and Domestic Work

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#### **ABSTRACT**

This SIG meeting will examine the domestic technologies and routines of diverse households as well as the role of gender in the use and maintenance of these technologies. Our aim is to bring together domestic technology experts and social scientists who study the domestic environment across a range of socio-economic groups to discuss the present and the future of domestic technologies, including their impacts on the lives of those who are often unvoiced, such as paid domestic workers.

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#### **KEYWORDS**

Human-computer interactions; Internet of Things (IoT); Human Geography; gender studies; home studies; science and technology studies (STS); Value-Sensitive Design (VSD)

# **GOALS FOR ORGANIZING A SIG**

Our objectives in organizing this SIG include but are not limited to:

- Discuss which technologies are currently available for housework and how they succeed in substituting or complementing manual labor.
- Map the contours of 'digital housekeeping' - what tasks are done, how often, by whom?
- Explore how digital housekeeping can be understood and represented by different household members (including domestic workers), particularly in terms of ideas of gendered work and skill.
- Examine how the design of domestic technologies contributes to routines and tasks of digital housekeeping and their organization/ allocation within households.
- Broadly discuss the potential effects of digital housekeeping on paid and unpaid domestic labor.
- Discuss the future of home and the future of domestic work.

#### INTRODUCTION

For well over a decade, researchers in HCI have been examining the role of information technologies in domestic life, exploring routines of use [12], effects of life disruptions on usage [10] [13], divisions of labor [12] [13] [15], co-located gameplay [18], communication [8], and coordination [11]. The proposed SIG meeting will focus on these types of 'digital domestic work', the work that is done within the home, maintaining conventional computational technologies such as robots that assist with cleaning, digital assistants to help with household chores like shopping, security for child and pet monitors and through smart locks, and maintaining all of these networked technologies. The novelty of this meeting comes in integrating perspectives from outside the CHI community, namely social scientists who study domestic workers—the nannies, au pairs, cleaners, and other workers who often remain invisible [9], both in the households and in HCI discussions of domestic technology.

Housework has long been understood by feminist scholars as a key site for the creation and negotiation of gendered oppression and gendered identities. Gender identities are inherently performative [3] and as technologies change, so do the tasks that make up housework, their distribution between household members, their meanings and their status [16]. Digital technologies are now increasingly penetrating the routines of domestic life, changing what is possible to do, as well as how tasks are done. However, how these new technologies will be absorbed within household work, how they will affect different household members and how they will be valued, are all unknown and difficult to predict.

While discussing the gendered nature of interacting with technology has become more common place [1] [14], there is still relatively little discussion of the gendered nature of digital housekeeping [14]. At the same time, the histories of housework [6] [16] [17] and studies of paid and unpaid domestic workers [5] [6] show this work to be highly gendered, and technologies themselves can be designed to reinforce or subvert gender inequities [2] [4].

Existing studies, particularly from within HCI, of the adoption of digital technologies have tended to focus on the consumption habits of higher-income households or 'early adopters' who have the resources. This means that less is known about the practices of lower-income or marginalized groups, including aspects related to age, ability, income and race. This SIG will bring together domestic technology experts, as well as social scientists who study the domestic across a range of socio-economic groups. By bridging these two groups, this SIG aims to create meaningful communication to ensure future domestic technologies envision a wide range of potential users.

#### PARTICIPANT RECRUITING

We will recruit applicants widely both from within the HCI community and the social science community. We will announce the SIG via the organizers twitter feeds with the hashtags #gender, #HCI, and #Housework.

Within HCI we will post on CHI-ANNOUNCEMENTS@listserv.acm.org, and on the CHI Facebook group. We will also post to the mailing list for the Association of Internet Researchers (air-l@listserv.aoir.org), Ethnography Praxis in Industry mailing list, AnthroDesign (anthrodesign@yahoogroups.com), the Making Home mailing list (making-home@jiscmail.ac.uk). Finally, we will promote the event with the Royal Geographical Society's research groups on "Gender and Feminist Geographies", the "Digital Geographies Research Group" and the "Space, Sexualities and Queer Research Group."

#### **EXPECTED ATTENDEES**

This SIG would promote discussion among HCI researchers, social scientists, users, industry, designers, activists and other stakeholders who are interested in improving the lives of paid and unpaid domestic workers through socio-technical interventions, as well as attendees who want to learn more about the state-of-the-art of home technologies and understand its challenges.

#### **MEETING AGENDA**

We will start with a short introduction presenting the goals of this meeting. Then, we will encourage the participants to brainstorm and examine a range of technologies that are in varying points in the adoption curve. This includes new Internet of Things technologies such as video doorbells and smart locks, and digital assistants such as Amazon Echo, Google Home, and Apple HomePod, as well as older technologies that are on the cusp of mass market affordability such as robotic vacuum cleaners. We will also discuss other technologies that have potential for incorporation into the home, such as telepresence robots – which offer promising possibilities for child and eldercare – as well as apps and devices used to support domestic tasks such as grocery shopping, laundry, and particularly housekeeping and child care arrangements.

Following this broader discussion, we will introduce a selected set of technologies for digital housekeeping. We will divide into groups of 3-5 people and each will focus on a specific technology for an in-depth discussion, looking at how these new technologies are incorporated into domestic routines of diverse households as well as the role of gender in the use and maintenance of these technologies.

As basis for this discussion, we will introduce Friedman and Hendry's Envisioning Cards [7] which are a toolkit for scaffolding the discussion of values around a technology. Each card has four components: stakeholders, time, values, and pervasiveness. One side of the card includes a title and an evocative image related to the card theme; on the reverse side, the card shows the envisioning criterion, elaborates on the theme, and provides a focused design activity.

We will use these cards to scaffold a discussion regarding the values negotiation that goes on with and through each technology.

By the end of the session, we will summarize the themes that emerge in each group, becoming a starting point for mapping future challenges around digital technologies and domestic work.

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