Exploring the Diversity of Families: Designing Technologies for the Contemporary Family Life

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Abstract

In recent years, the HCI community has expanded its interest to include exploring the role of technology within the domestic domain; particularly in the context of families and technology. Numerous studies have focused on mapping the challenges and opportunities faced in designing technologies that are appropriated to the needs of contemporary families. However, few research lines have focused on supporting families with diverse structures and situations (i.e. divorced, same-sex, dealing with death as well as work-related periodic separation and reunion). This workshop aims to bring together researchers, practitioners and designers who are interested in exploring the research space of family design and furthering our understanding of what it means to design technologies for diverse family structures. During the workshop we will readdress the meaning of a diverse family, the methods used to conduct family research as well as discuss design and evaluation techniques with a focus on user experience.

Keywords

Diverse families, technologies, design, user experience

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms
Human Factors, Design

Introduction

In recent years, the interest of the HCI community has broadened to include everyday domestic activities. Most of this focus has centered on the role of technology in family life and the social practices surrounding the interactions between family members when technological interventions are present. Numerous research lines have explored the role of technology in mediating essential interactions between parents or grandparents and children as well as between intimate couples [4,10,12]. Other studies have depicted the need to better understand the outcomes of technology use that go beyond the actual use of technology focusing on the experience that this use produces [2].

Even though these works have touched the surface for designing for the family there exist other dimensions of the contemporary family life that are ubiquitous yet underexplored. Diverse families encompass the many different forms of families that exist within contemporary society. We also recognize that while such families can be characterized as 'atypical' or 'alternative', we expect that a large portion of families will fall into one of these categories at one time or another. Examples of these family types include those separated by divorce, families that experience continuous transitions between being together and apart due to work-related reasons, foster and many-children families, same-sex and multi-cultural families, as well as families experiencing chronic illnesses.

Within HCI only very recently have different forms of these families and their relationship with technology been studied. Researchers have studied the role of communication technologies within divorced families (i.e. [14]) as well as the notion of understanding technology use within dynamic family structures or families dealing with death [5,9]. Furthermore, the existence of numerous families that experience work-related separation has spurred the interest of research lines in exploring and designing for the parent-child interaction within these families [13]. Recent studies have also focused on how technology can be designed to support multi-cultural families [1] and to probe the understanding of social class related values that emerge when technology is used within this context [3]. At the same time, works like Turkle's [11] have noted the importance of taking into account the both the negative and positive influences of technology on the interpersonal relationships between family members. It is evident, therefore, that the current research on 'atypical' families and technology is still in the early stages and there exist numerous issues and challenges to be addressed.

Motivation and Topics of Interest

The proposed workshop aims to address the issues and challenges that arise when we design for diverse families. Our motivation stems from the desire to better understand the type of family related research that has been excluded from current HCI work and discuss how the HCI community could be more inclusive in family related research. We expect this workshop to extend the current research space on designing for the family by concentrating on the following topics of interest within diverse families:

Exploring the contemporary family
We aim to start the discussion by asking: what can a family look like? We hope that through understanding

and exploring the range of families we will better ground our discussions throughout the course of the workshop, and also form a basis for future family discussions. Even though it is troublesome to create a family definition, it is, nevertheless, essential to explore what constitutes contemporary family life and have a shared and broadened understanding of what is encompassed before we engage within the space of family technology.

Supporting family needs
One of the roles of technology within the family domain is to support the needs of family members. Nascent work has depicted some ways with which technologies can support these different family forms, yet we have barely scratched the surface, and there are many more challenges that deserve to be discussed and reflected upon. These challenges could include but are not limited to:

- *Connection in the context of division*: For example, a parent may desire for their child to have contact with their separated spouse while avoiding contact himself or herself. What other challenges does technology create or solve for families that balance supporting connection in the midst of division?

- *Transitioning between being together and apart*: Separation may happen due to changes in employment, military service, or discovery of an illness. More generally this also occurs as children going off to college or aged parents move to a care home. How do technologies help or hinder in these times of transition?

- *Understanding the challenges that contemporary families face*: Jobs, health, and many other external circumstances can lead to a home life that looks very different than the traditional family image. What kinds of challenges do these families face? What should we consider when designing to support these families?

- *Balancing ethics*: How do we integrate respect and awareness into studies where the subjects are vulnerable due to family circumstances? Is it ethical to intervene at these times, and if so how can we proceed in a manner that limits further 'injury' to the participants?

Specific Issues to be addressed
In order to make sure that this one-day workshop will be of value to the participants we propose the following set of issues.

a) **Defining the Space**: Definition of the contemporary family life with a focus on the diverse family forms. What are the attributes and characteristics of these types of families? How does this challenge our previous beliefs when designing for families? Although we do not expect to come to a definitive definition for "family", we do hope that through this discussion we will begin to represent the depth and breadth of what contemporary family life looks like.

b) **Understanding and Designing**: Are the needs of the family members of diverse families addressed with the current technologies? What design considerations should we take into account? What do we need to consider prior to designing? Are there tensions that arise between designers and users? Through these questions and others we aim to critically examine the methods applied and how they can be appropriated in the context of contemporary families. Finally, another topic within this subset is the ethical considerations that we have to take into

account when studying and designing for a diversity of families.

c) ***Evaluation***: How can we evaluate family technologies within the context of diverse families? What are the best practices? How can we evaluate the technologies used when focused on the holistic and individual user experience? What about the ethical considerations which encompass the lives of these families and how can we take into account and reflect on the sensitive issues that arise when we evaluate the technologies in use?

This workshop builds on previous workshops held at CSCW 2008, GROUP 2010 as well as a SIG at CHI 2009 [6,7,8]. We hope for this workshop to be the first in a series at CHI exploring how the community can better understand diverse families into the design and evaluation process in thoughtful and meaningful ways.

Conclusions

This workshop aims to address questions arising within the practices surrounding the technology design and use in diverse family forms. We aim to attract researchers, designers and practitioners interested in the different aspects that encompass the contemporary family life and inform the design of technologies that are appropriated to the needs of contemporary families.

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