Supporting Long-Distance Parent-Child Interaction in Divorced Families

Abstract
Children in divorced families benefit from meaningful contact with both parents. Currently, there are few technologies that effectively support distributed contact between parents and children. This work presents the results of interviews with 10 parents and 5 children from divorced families to better understand the challenges and needs of this group.

Keywords
Children, parents, divorce, computer-mediated communication

ACM Classification Keywords
H.5.2. Information interfaces and presentation (e.g., HCI): User Interfaces: User-Centered Design

Introduction
In the US, 32% of children live apart from one of their parents [3]. The most common reason for this is divorce or separation. Having both parents participate in the upbringing of the child is related to positive outcomes such as academic success and emotional adjustment [2]. However, typically, the non-residential parent’s involvement tends to be limited. Current visitation practices (i.e. short or infrequent visits supplemented by phone contact) make it difficult for
the non-residential parent to contribute equally to raising a child [10]. This work attempts to expand our understanding of the needs of parents and children in divorced families in order to inform the design of technologies to address these challenges.

I begin by discussing related literature on supporting distributed families and parenting after divorce. I then give an overview of the methodology and demographics of the participants. Finally, I present the major themes that resulted from the semi-structured interviews of 15 members of divorced families.

**Related Work**

**SUPPORTING DISTRIBUTED FAMILIES**

There has been a significant amount of interest in HCI in supporting distributed families. The InterLiving Project [6] explored communication between two households in a family, but focused on interaction between adult members (such as adult siblings, or an adult and an elderly parent). The ASTRA Project [7] and Hermes@Home [8] supported distributed interaction between family members at home and a family member who are away. Though these projects have inspired my own work, there has been little focus on supporting long-term long-distance communication between parents and young children.

Dalsgaard et al. [4] explored parent-child interaction through a set of interviews and cultural probes. They discovered that parents and children establish intimacy through two types of interaction: care and play. Care interaction is directional, from parent to child, and includes activities such as setting rules, providing resources for learning, and assisting with everyday tasks and activities. Play activities are equally important to parent-child intimacy and include collaborative everyday tasks, activities with shared artifacts, and physical play behaviors. In this work, I explore how this model of interaction is different for divorced families.

**PARENTING AFTER DIVORCE**

Divorce has received a considerable amount of attention in psychology. These studies tend to use surveys with a large number of participants correlating variables of divorce with various measures of childhood adjustment. Amato’s meta-analysis [1] provides a synthesis of this work, showing that children of divorce score lower on measures of academic achievement, social relations, and psychological well-being.

Few studies examine the specific nature of the parent-child contact after separation. Furstenberg et al. [5] showed that the distributed parent was likely to be involved socially in the child’s life, but rarely set rules or assisted with care activities such as helping with homework. Seltzer and Bianchi [9] showed that quality and quantity contact with the distributed parent decreased dramatically after the first year of separation.

While these studies were helpful in informing my own work, they are difficult to translate into needs or design implications because they do not provide a rich description of the specific challenges faced by children and parents in divorced families.

**Methodology**

We recruited 10 parents and 5 children (ages 7-14) through word-of-mouth and craigslist.org. Refer to
Table 1 for the demographics of the parents and children that we interviewed.

I conducted a 30-minute semi-structured interview with each participant. The questions asked focused on the way the parent and the child interacted in person and apart, technology they used (if any) to support their interaction and the perceived challenges of staying close. At the conclusion of the interview, I asked the parent to describe a hypothetical future technology that families 10 years from now could use to stay in touch. Children were asked to draw and describe a magical device that would make it easier to stay in touch with their parents. The conversation was audio recorded and transcribed.

The transcripts were analyzed using a data-driven approach. Statements of interest were extracted from each interview and grouped together by theme. With each pass through the interview data, these were refined until a set of distinct themes emerged. A single segmented interview was coded for these by two independent coders. The Cohen's Kappa value of agreement between the observers was 0.79 (for 35

<table>
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<th>#</th>
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<th>Age</th>
<th>Profession</th>
<th>Classification</th>
<th>Children</th>
<th>Marital Status</th>
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<td>Remarried</td>
<td>11 Female: summer 1 month 10 Male: every other weekend</td>
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<td>41</td>
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<td>Primary / Secondary</td>
<td>12 Female 16 Male 17 Male</td>
<td>Divorced</td>
<td>12 Female: once a week, 1 holiday Males: only apart every other weekend</td>
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<td>3 days a week</td>
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statements), which is classified as substantial and almost perfect agreement. I then proceeded to code the rest of the interviews with those themes. While space constraints prevent me from addressing each theme in detail, I present an overview of the results in thematic clusters in the next section.

Results

CURRENT USE OF TECHNOLOGY

Every family interviewed reported using the telephone as a primary method of staying in touch while apart. However, every parent expressed dissatisfaction with the phone. Often, parents and children would only have short (2-10 minute) conversations to “check in.” Four of the parents mentioned using videoconferencing to stay in touch. All four agreed that adding video considerably improved their interaction with the child. However, only one of these parents reported using videoconferencing more than 5 times. In general, parents mentioned that they would only use it when they could not make their regular visitation time. They cited difficulty in coordinating a time and space to videoconference as a deterrent to using it regularly.

REDEFINED FAMILY ROLES

Each household functions with little input or support from the other. Typically, little communication about the child’s activities occurs between parents. The parent is responsible for creating and enforcing his or her own rules while the child is visiting. Similarly, the parent takes over all aspects of caring for the child while together. The only exception was that children reported that they were much more likely to roughhouse or play sports with their fathers and go to their mothers to “talk about feelings” or cuddle.

The primary parent is likely to spend more time caring for the child and more likely to set rules, because he or she usually has the child for “school nights” rather than weekends or over the summer. This causes tension as the primary parent feel that he or she misses the fun times with the child, while the secondary parent feels that he or she has few opportunities for input into the child’s schooling or activities.

DESIRE FOR GREATER CONTACT WITH THE CHILD

All but one of the parents I interviewed stated that they would like more contact with the child than they currently have. One of the ways they mentioned responding to this is by trying to maximize the perceived quality of the time they spend together, with an emphasis on family and educational activities. Four of the parents reported working longer hours while the child was away in order to be able to take time off work while the child was visiting. The desire for greater contact also manifested itself in a sense of competition over the child’s time and affection. While parents try to hide this competition, three of the children I interviewed explicitly mentioned noticing it and acting to mediate it.

MOTIVATING CHILD’S CONTACT

Like the parents, children mentioned wanting more time together. However, children reported shying away from distributed contact because “it’s boring” or they “just forget.” All but one of the parents reported that it was difficult to find topics to talk about while apart and that conversations often devolved into short episodes of “what’s up?’ ‘nothing.” Two of the children and three of the parents mentioned that they would often think of things that they want to discuss but forget them by the time the conversation occurred. Three parents
Child’s depiction of a holographic system to help her talk to her father

mentioned that having interests in common greatly aided in “breaking the ice” and getting the child excited about the conversation.

PRIVACY FOR DIVORCED FAMILIES
Desire for privacy is often seen as a deterrent to divorced families adopting new technologies. There were three distinct components to “privacy” discussed by the participants. First, there is the ability of one parent to access the other parent’s personal life, such as finding out about a new significant other. All but one of the parents stated that this was not a reason that they would reject a technology. Parents are already in the habit of managing their behavior and topics of conversation around the child, assuming that anything that occurs in front of the child can be related to the other parent. Making sure that a camera is off or managing where a technology gets used is seen as a natural extension of this.

The second component of privacy identified by parents is the security of the child. Four of the parents worried about introducing technologies which the child could use to contact (or get contacted by) somebody other than the parent, such as social networking sites, videoconferencing, or a cell phone. Parents want to be able to “lock” a technology to restrict available contacts.

The third component of privacy was the ability to maintain autonomy in raising the child during custody times. Six of the parents mentioned that any sense of “spying” or “stalking” on their daily care for the child would be greatly disturbing to their households. This was the only form of privacy explicitly mentioned by the children interviewed. Three of them worried about sharing information that may get the other parent “in trouble” or losing freedoms that they enjoy in one household but not the other.

CHALLENGES IN LONG-DISTANCE INTERACTION
The first challenge cited by participants is that audio-only communication is very difficult. Parents mentioned that in-person they use the child’s expression or manner to inform how they guide the conversation. This is much more difficult to do over the phone. Eight of the parents and one of the children included a video component when talking about ideal future technologies for staying in touch.

The second challenge mentioned was that it is difficult to share thoughts or feelings as they occur without interrupting the flow of the other household. Parents and children both mentioned waiting until the next regularly-scheduled contact to share, rather than calling immediately. However, by the time the contact would occur, the thought or feeling would often be forgotten.

The third challenge is that there are fewer opportunities to develop and maintain shared rituals and meanings while living apart. Parents mentioned rituals such as sitting in a certain way while reading together, bedtime routines, and holiday traditions as the thing they missed most while being apart from the child. Similarly, children listed such rituals as their favorite aspects of being with the parent. One parent mentioned that having contact with the child frequently (even if for a shorter duration) was more helpful in maintaining this sort of contact with his daughter.

The fourth challenge mentioned is the lack of access to
private, uninterrupted conversation spaces, like the car. Eight parents and four children mentioned that the car is the place where they have their best conversations with each other because they are together in a private space without distractions. No equivalent spaces exist for distributed interaction. Two of the children mentioned hesitating to talk about something over the phone for fear of being overheard.

The last challenge was mentioned by all ten parents—staying aware of the child’s activities or state while being apart. Distributed parents often find it harder to access the child’s extended network, such as teachers, doctors, or friends’ parents. As the other parent rarely volunteers information about the child, they often have to rely exclusively on what the child chooses (or remembers) to tell them. This makes it difficult to address problems that the child may be having or share meaningful conversations about the child’s life.

Conclusion
Divorced families are distinct from other distributed families because they define family roles differently and face a unique combination of challenges in managing privacy, motivation, and long-distance interaction. Current methods of communication are ineffective at creating closeness. Identifying the challenges faced by these families can help inform the design of support technologies.

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Work Cited