
The Future of Personal Video Communication: Moving Beyond Talking Heads to Shared Experiences

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Abstract

Personal video communication systems such as Skype or FaceTime are starting to become a common tool used by family and friends to communicate and interact over distance. Yet many are designed to only support conversation with a focus on display 'talking heads'. In this workshop, we want to discuss the opportunities and challenges in moving beyond this design paradigm to one where personal video communication systems can be used to share everyday experiences. By this we are referring to systems that might support shared dinners, shared television watching, or even remote participation in events such as weddings, parties, or graduations. This list could go on and on as the future of personal video communications is ripe for explorations and discussions.

Keywords

Video communications, families, video chat

ACM Classification Keywords

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

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General Terms

Design, Experimentation, Human Factors

Introduction

The use of video communication systems has rapidly proliferated over the last several years for personal and family communication given the availability of free video chat software such as Skype or Google Chat [1][5][8]. With this has come a design paradigm for video communication dominated by "talking heads." By this we mean that the common usage of video chat systems is often thought of as two people talking where each sees the other's face and not much more. Yet video chat systems of the future are likely to be much more than this where they begin to connect people in new and interesting ways to support the sharing of everyday experiences. Imagine, for example, video systems that allow family and close friends to participate in holiday meals, attend significant events (weddings, births, memorials), cook together, watch a movie together, etc. These experiences may involve more than two people and many different kinds of devices, including mobile devices that move along with activities on the go. The future is ripe for exploration.

Research has begun to explore such opportunities. Studies of existing video chat systems like Skype have shown that family members often share or view activities rather than just converse while they are connected [1][5][8]. For example, grandparents might watch their grandchildren play over Skype [1][5]. Long-distance partners have even been found to leave video chat systems going over extended periods of time to create a shared sense of intimacy [12]. New video communication systems have also been designed to directly support the sharing of everyday activities. For

example, the Family Window [6] and Family Portals [7] are media spaces designed for the home where always-on video (displayed in a digital frame) connects two or more households. Family members can see each other and even participate in shared activities over distance such as meals, get-togethers, and children's activities [6][7]. A mobile family media space called Peek-A-Boo extends this experience to mobile devices [13]. Similar in nature, the Share Table is a media space that allows children in divorced families to interact and play games with their remote parents [16].

Nokia Research has designed a number of video-based prototypes that extend the ways in which grandparents and grandchildren can connect and share reading activities over distance. For example, Family Story Play is a physical book with an embedded video chat display for distance-reading [14]. Story Visit extends this experience to the web to again support connected reading [15]. People In Books places the video feeds of children and remote grandparents within a storybook to create an additional level of immersion [2].

Microsoft Research has also explored new paradigms for video-based communications focused on connecting children for rich, social play. Video PlayDate allowed children to participate in free play over distance using a variety of display options (e.g., large displays, table displays, laptops) [17]. Building on this idea, IllumiShare allows children to share physical and digital objects on any surface over distance [3]. This allows them to engage in additional play activities, now involving toys and other items. Video Kids moves beyond playing to allow children to asynchronously share video messages with their friends [4].

These systems are certainly only the beginning. Moreover, they represent only part of the continued efforts that researchers and designers are taking to explore new paradigms for personal video communications that go beyond talking heads. We plan to discuss these explorations and more as a part of this workshop.

Workshop Objectives

Our workshop has two primary goals. The first is community building: We want to bring together researchers, designers, and practitioners who are studying or designing personal video communications technologies to talk about their research, understand the challenges they have faced, and learn about their upcoming research plans.

Our second goal is to explore the future of personal video communication technologies as they move beyond the current design paradigm of "talking heads." Here we want to brainstorm what the next generation of video communication tools might look like and encompass, and understand the value in moving the field to video communication systems that allow people to share everyday experiences over distance.

We anticipate a great deal of discussion, knowledge sharing, and brainstorming as a part of these objectives. We plan to disseminate this knowledge in an article for Interactions magazine or Communications of the ACM. We will also consider organizing a special journal issue that explores the ways in which researchers and designers are creating next generation video communication tools that support shared experiences.

We also intend this workshop to build on past workshops organized by one or more of the members of the current organizational team. Past workshops included a "Designing for Families" workshop at CSCW 2008 [9], a Special Interest Group workshop at CHI 2009 [10], and a workshop at GROUP 2010 on "Connecting Families" [11].

Topics of Discussion

The workshop will explore a variety of topics related to the theme of personal video communications and supporting shared experiences. This includes but is not limited to:

- connecting grandparents and grandchildren
- supporting long distance relationships
- connecting traveling parents with their family
- virtually hanging out with friends
- infrastructure and technological issues with video communication
- mobile-based video communication
- various cultural uses of video communication systems

We see this workshop as an opportunity to develop the research community on personal video communications across academic and industrial players. We also seek participation by representatives from the major industrial players in this space beyond the workshop organizers. This includes additional representatives from Cisco, Apple, Nokia, Microsoft, Google, etc.

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