Personal or Social? Designing Mobile Interactions for Co-located Interaction

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Abstract

Personal mobile devices such as mobile phones, tablets, fitness wristbands, and smart watches are becoming ubiquitous and widely involved in our daily activities. However, these devices are designed and considered by the users as *personal* – not as shared or collaborative. As a response to this, the workshop aims to explore the design of new application ideas for mobile devices that explicitly encourage users to engage in face-to-face interaction. The research question is firstly *how to design for* face-to-face interactions. Secondly, it is *how we can utilize* various possibilities e.g. combining mobile devices (e.g. phones + tablets); extending commercial mobile-devices with hardware peripherals; utilizing social networks, geo-location services or proximity-based connections; or utilizing software to turn the personal devices into tools of face-to-face interactions.

Author Keywords

Mobile devices; face-to-face interaction; co-located; collaborative technology; personal technology; multi-user; design methods; design approaches.

ACM Classification Keywords

H.4.3. Communications Applications; H.5.2. [User Interfaces]: User-centered design; H.5.3. [Group and

Organization Interfaces]: Theory and Models; J.4. [Social and behavioral sciences]: Sociology

Introduction and Motivation

Current mobile devices are designed to support remote interaction and meant for *personal* use. While the input sensors and computing power seem sufficient, the output channels are designed for private use: small displays, headphones, vibration, and button- or touch-based input. Often, the use of mobile devices leads to situations where people are physically co-located but alone in their interaction with the devices, in a private bubble or "cocoon" [4]. Research has connected this behavior even with health related issues [5]. Consequently, there is a growing number of movements calling for actions that would bring back the social and co-located aspects of interaction: e.g., "Not on app store"[1], "Stop Phubbing"[2] - stop paying attention at your phone more than at your friends and people that are near you, or "Look Up"[3]. In summary, the limitations of current commercial mobile devices, existing applications, and the way they are used have led us to discuss and explore how interaction designers and developers could provide for richer and more meaningful co-located social experiences.

This workshop aims to bridge the gap between *personal* mobile devices and *social* interactions of co-located people. The workshop is interested in how mobile technology could be introduced in social activities that are inherently co-located and cooperative – without being too dominant. The practical goal of the workshop

is to provide a forum for researchers, designers, and practitioners to explore this design space, test and refine different design methods, as well as to explore the potential to apply and extend current commercial mobile devices, applications, and interaction techniques to allow richer social experiences.

Themes

The workshop will build around and is expecting contributions from the attendees related to the following themes:

- Novel applications or interaction techniques for mobile devices that aim to stimulate and/or support co-located social activities, collaboration and interaction
- Design methods/approaches and challenges in designing for co-located face-to-face interactions
- Utilizing hardware add-ons, extensions and customizations to extend the "social capabilities" of personal mobile devices
- Experience reports from "in the wild" deployments or prototypes that aim to stimulate and/or support co-located social activities

Workshop Goals and Expected Outcomes

We propose to organize a full-day multidisciplinary workshop that brings together both practitioners and researchers to share their ideas and experiences on making personal mobile devices more suitable for different co-located social activities. This workshop is building on the success of previously organized workshops "Computer Mediated Social Offline Interactions" at UbiComp 2012 [2] and 2013 [3], and "Designing Mobile Face-to-Face Group Interactions" at ECSCW '13 [1]. However, this workshop has a special

focus on utilizing current personal off-the-shelf mobile devices, such as smart phones and wearable devices.

The workshop provides a forum for knowledge sharing, discussion and networking, as well as for putting together a collection of design methods and creating new knowledge and ideas for social mobile technologies for co-located people. Additionally, we are planning to test and refine a design method in a hands-on design exercise aimed at conceptualizing new application ideas, interaction techniques or hardware add-ons that could enhance social interaction.

Relevance for the Field

"Personal or Social?" workshop is relevant for the Human-Computer Interaction as it focuses on the challenges associated with the design and development of next generation mobile devices and applications. It brings back the spotlight on co-located social interaction where the focus is not on the "computer" but on the "humans" and the interactions between people.

Workshop Activities

We propose a one-day workshop on Monday 27th of October with presentation and discussion including some brainstorm in the morning and Bodystorming and hands-on session in the afternoon.

Morning Session: Getting familiar with the design space
The workshop starts with a short introduction to the topic of the workshop followed by introducing a design framework, which will be used for idea generation throughout the workshop. After that, participants get to know each other and their works through an ice-breaker activity. Brainstorming follows where

participants share experiences and issues that they have encountered when designing and developing for face-to-face interaction.

Afternoon Session: Scenario-Based Design
Participants are split into groups (the number of teams is based on the number of the participants). Design teams are given different scenarios of a social activity and, using the proposed framework and method, they are to design their solution based on the potential of existing commercial mobile devices with features which enhance given social activities. Participants concretize their ideas through storyboards or simple mock-ups. At the end of the workshop, each group presents their design ideas, followed by a concluding discussion.

Target Audience

We welcome HCI scholars and practitioners from multidisciplinary areas including: social computing and CSCW researchers, interaction designers, researchers of interaction techniques, and application developers. We are expecting up to twenty-four participants at the workshop.

Submissions

Workshop candidates are requested to send a position paper (2-4 Pages in the SIGCHI EA-format format). The position paper should describe why one is particularly interested in this field of design (in terms of research, ideas or upcoming activities) and what design challenges one sees. Participants will be selected based on the relevance of their work with, and/or interest in, the design of co-located social interaction by the workshop organizers and the external program committee described in the margin of this page.

Organizers' Background

Joel E Fischer is a post-doc Research Fellow at the Mixed Reality Lab at the University of Nottingham. His research interests include the social interaction of co-located groups around mobile technology.

Pradthana "Ting" Jarusriboonchai is a doctoral student and researcher at Tampere University of Technology, Finland. She is exploring the roles of mobile technology and ubiquitous computing in social activities among co-located people.

Sus Lundgren has a background within the industry as a GUI designer. She holds a PhD in interaction design and her main research interests are design methodology; interaction design of mobile interfaces; and gameplay design.

Nemanja Memarovic is a research and teaching assistant at the Faculty of Informatics, University of Lugano, Switzerland. His research interests revolve around networked public displays and their use for stimulating and supporting community interaction.

Thomas Olsson is a post-doc at Tampere University of Technology. He has been studying user experience and user's expectations of various mobile and ubiquitous systems. Most recently, he has focused on enhancing co-located social interactions in the CosMo project.

Stuart Reeves is EPSRC Senior Research Fellow in the School of Computer Science, University of Nottingham, where he is a member of the Mixed Reality Lab. He is primarily interested in the study of interactive technologies situated in public and semi-public settings, and their design.

Olof Torgersson is a lecturer in interaction design at University of Gothenburg, where he is a part of the Mobile Touch Group. Olof's current research is focused on the design and use of mobile touch interfaces, for example to support social and emotional training in special education schools.

Paweł Woźniak is a doctoral student in the t2i interaction lab, Chalmers University of Technology. His research explores how data affects everyday interactions and how users can generate, explore and understand datasets in meaningful ways.

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