SOFTec 2013: Second Workshop on Computer Mediated Social Offline Interactions

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Abstract

In the age of online social networks, instant messaging, and email, social offline interactions seem destined to become an anachronism: as our use of electronic media increases, the number of hours per day that we interact directly with others "in the flesh" declines. Yet for all the power of synchronous and asynchronous remote communication, virtual interactions are hardly an adequate substitute. Recent studies show, e.g., that users of online social networking sites feel lonelier than non-users, and that people who have regular social offline interactions on a weekly basis enjoy a significantly reduction in mortality. Is there a way to have our cake and eat it, too? Can we design technology in such a way that its use comes not at the expense of social offline interaction, but supports it? The goal of this workshop is to examine how we can build technologies that *promote offline interactions*.

Author Keywords

Offline interaction, face to face interaction, social interaction, ubiquitous computing.

ACM Classification Keywords

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

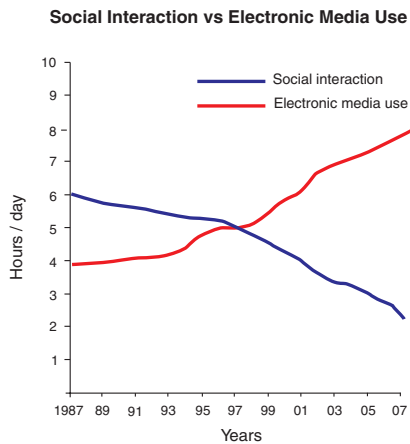**Social Interaction vs Electronic Media Use**

Figure 1: The influence of increased online interaction on social offline interaction in Britain (from [16]).

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

General Terms
Design, Human Factors.

Introduction
We talk with our family members at home about things that happened at school or work; we discuss at the water cooler with our work colleagues last night's major league game; or we bump into acquaintances and friends in bars and "catch up". The effects of interacting face-to-face or *offline* are highly positive on human life. Sigman [16] shows a significant reduction in mortality rates among people who have regular social offline interactions on a weekly basis wile Matzat [11] points out how offline interaction reduces problems of sociability and aids in facilitating online knowledge sharing.

Much of our recent personal technology mimics (and migrates) our social offline interactions: we can chat and discuss with our colleagues using sophisticated teleconferencing systems; we can send messages to our grandparents while we are vacationing on a remote island; and we can check where friends and acquaintances are in real-time and what they are up to. With 5.6 billion people owning a mobile device [6], 584 million people checking out what their friends are doing every day [5], and 340 million tweets daily [10], we are truly living in the age of "perpetual contact" [7].

Although this pervasive connectedness most certainly has its benefits, today's use of electronic media often comes at the expense of direct social interaction (cf., Figure 1). Some even claim that this behavior can be

diagnosed as a medical condition that needs treatment [1].

Our proposed workshop would investigate how we can use technology to nurture *social offline interaction*, i.e., SOFTec*,* thus better reflecting Weiser's vision of technology weaving itself into 'the fabric of everyday life' [20]. This will be the second workshop in the series: first workshop on Computer Mediated Social Interaction was organized last year in conjunction with Ubicomp 2012 [21].

Related Work
Much of the work on spurring offline interaction consists of studies on social networking sites [11], [17], mobile technology [1], [7], and public displays [3], [12], [13], [14] and their potential for stimulating offline interaction.

Numerous studies have demonstrated the importance of direct, i.e., offline, interactions in our social fabric. Lewis [18] points out the importance of body language, facial expression, and tone of voice in interpersonal communication and argues that these are all missing in online interaction: even with video calls both speakers cannot achieve true eye contact, an important element of social offline interaction. Research by Sigman [16] shows the negative influence of technology mediated communication: the more we use online technologies the less time we spend interacting offline (cf., Figure 1). He points out that "time that was previously spent interacting socially is increasingly been displaced by the virtual variety".

Recent work on user behavior on social networks has also looked into the overlap of offline and online contacts [17] and the influence of offline interaction on online behavior

[11]. On the one hand Subrahmanyam et al. [17] report that keeping in touch with the people one encounters in offline life is one of the main reasons for using social networking sites. However, Matzat [11] reports that offline socializing greatly influences online behavior by reducing the need for online social interaction. Both studies motivate the need for *offline interaction*: most online interactions come from the need to socialize with offline contacts.

While ubiquitous connectedness can lead to the state of absent presence [7], recent work has looked into leveraging mobile technology to create opportunities for serendipitous offline interaction between strangers and friends by displaying a user profile of a nearby person on a mobile device [8] or by informing us that people with similar interests are in our vicinity [19]. While mobile phones show the potential of stimulating peer-to-peer offline interaction, large displays show the potential of stimulating spontaneous interaction between bigger groups in working environments [12], third spaces [13], home [3], and as public and semi-public settings [8], [14].

All of these different communication tools and devices, e.g., social networking sites, mobile phones, and public displays, comprise our 'communicative ecology' [15] that social offline interactions are also part of. In order to make sure face-to-face communication is still valued as a communication channel it is important to start thinking about designing, developing, and evaluating technology that stimulates and supports face-to-face communication.

Themes

In order to tackle the challenges associated with SOFTec, we will draw/build on the following themes, depending on participant contributions.

- Informing the design of technology from theories and models that describe how people behave in face-to-face interactions, e.g., Goffman's theory on social interactions in public spaces.
- Mobile devices, large displays, social networking services, bio- and sensor-based networks as singular or mesh technologies for SOFTec.
- Novel applications for mobile devices, large displays, and social networking services that stimulate SOFTec.
- Interfaces and interaction concepts/metaphors for mobile phones and/or large displays that stimulate SOFTec within stranger-crowds, couples, and groups.
- Games as an example of SOFTec technology for entertaining and serious engagement.
- Experience and service design for SOFTec.
- Tools for measuring and assessing the impact of SOFTec technology.

Workshop Goals

The goal of the SOFTec 2013 workshop is to develop a research agenda for the technology that nurtures social offline interaction.

The above-mentioned themes will be used as a starting point for the discussion and group analysis (described below). However, we will also pay attention to new

themes possibly emerging from morning presentation and discussions.

Activities

We propose a one-day workshop with presentation sessions in the morning, group analysis of video and photo materials in the early afternoon, and group discussion in the late afternoon. We will also describe here pre-workshop preparation and post-workshop follow up.

Pre-Workshop Preparation

Workshop organizers will create a pool of material that will be analyzed at the workshop. The pool will be created from videos and images of (1) technology getting in the way of social offline interactions (2) or supporting offline interactions, and (3) images and videos from face to face interactions from various settings, e.g., university events, city festivals, urban community events (e.g., skater events). Once the initial pool is created workshop candidates will be asked to contribute to the pool before the workshop.

Presentations

The workshop will start with an introduction to the workshop topic (9:00-9:15), followed by very short introductory presentations to get familiar with the participants and the topic they are working on. The introductory presentations will have a Pecha Kucha style – authors will get 5 minutes to present their work having their presentations short and focused. While listening to the presentations, all participants will be asked to take notes on provided Post-Its, which we will share on a large whiteboard in order to prepare for the discussion sessions.

The presentation session will be broken into two parts (9:15-10:00 and 10:30-12:00) with a short coffee break in between (10:00-10:30). This will allow enough time to discuss different ideas coming out from the presentations.

Group Analysis

After the lunch break (12:00-13:00) workshop participants will start analyzing videos and photos jointly or in groups, depending on the number of candidates. All participants will write notes on Post-Its, which will be added to the Post-Its from the morning session on the whiteboard. In order to sort out the challenges and opportunities for technology that stimulates SOFTec we will do an affinity diagrams analysis of the Post-Its.

Group analysis will start at 13:00 and will end at 15:30 with a short coffee break in between (14:30 – 14:45).

Group Discussion

After the group analysis we will have a longer coffee break (15:30 – 16:00) and then discuss identified challenges and opportunities (16:00-17:00). The organizers will actively interact with the audience to stimulate discussion. After that we will summarize key experiences from the workshop and will plan follow up activities (17:00-17:30).

Post-Workshop Follow Up

At the workshop organizers will take pictures/document the outcome of the analysis and the content on the whiteboard. This will be made available to the workshop participants through a shared Dropbox folder. The participants will be invited to an existing online

repository on Zotero where they can share relevant papers to the workshop themes.

Participants

We are expecting up to fifteen participants at the workshop (including the workshop organizers). The workshop will be open to participants without a position paper on the day of the workshop.

Submissions

Workshop candidates are requested to send a position paper (no longer than 4 pages in the Ubicomp Workshop format) to the organizers about their research and link to the workshop theme. In addition to describing their work candidates will be asked to write about challenges and opportunities they see for technology that nurtures and stimulates SOFTec, in order to prepare the candidates for this year's workshop theme.

Participants will be selected on the basis of the relevance of their work and interests and familiarity with the SOFTec workshop topics.

Deadlines

- Workshop submission deadline: June 10 2013

- Feedback to authors: June 14 2013

- Camera ready version: June 24 2013

- Workshop at Ubicomp 2013: September 8 2013

Publicity Plan

A website will be established for the workshop. The workshop will be advertised in a number of mailing lists (Ubicomp, CHI, Lancaster Ubicomp, BCS-HCI, Italian HCI, NordiCHI, German HCI, EUSSET, and Australian HCI). The workshop will be promoted via Facebook and Twitter.

The workshop organizers will contact their peers who published on topics related to the SOFTec workshop's themes. We will also go through the last three years' proceedings of conferences that have similar or matching interests, e.g., Communities and Technologies, UbiComp, Pervasive, CHI, CSCW, and DIS in order to promote the workshop and invite authors who published on similar topics.

Organizers

The SOFTec workshop is organized by Nemanja Memarovic, Vassilis Kostakos, Geraldine Fitzpatrick, and Albrecht Schmidt.

Nemanja Memarovic
Nemanja Memarovic is a research and teaching assistant at the Faculty of Informatics, University of Lugano, Switzerland. His current research centers on social and community interactions in public spaces, in particular opportunities for intra- and inter-community interaction through networked public displays. Nemanja was conference administrator for the Community Informatics 2012 conference, a co-organizer of the Workshop on Computer Mediated Social Offline Interactions [21] at Ubicomp 2012. He is also co-organizer of this year's "ExS 2.0", workshop at C&T 2013, and a publicity and in-situ demo chair of the International Symposium on Pervasive Displays 2011. He is also a PC member of the International Symposium on Pervasive Displays (2012, 2013) and Web chair for Ubicomp 2013.

Vassilis Kostakos
Vassilis Kostakos is Professor of Computer Engineering in Ubiquitous Computing at the Department of Computer Science and Engineering at the University of Oulu. He previously held appointments at the University of Madeira and Carnegie Mellon University. He holds a PhD in Computer Science from the University of Bath. He has been a Fellow of the Academy of Finland Distinguished Professor Program. He conducts research on ubiquitous and pervasive computing, human‑computer interaction, social and dynamic networks, usable security and trust.

Geraldine Fitzpatrick
Geraldine Fitzpatrick is Professor of Technology Design and Assessment of Technology and leads the Institute for Design and Assessment of Technology (and its sub‑group, Human Computer Interaction) at Vienna University of Technology in Austria. Prior to this, she was Director of the Interact Lab at the University of Sussex, and has worked as a user experience consultant at Sapient, London, and a senior research fellow at the Distributed Systems Technology Centre and the Centre for Online Health in Australia. Her research is at the intersection of social and computer sciences and she has extensive experience in inter‑disciplinary research projects in these areas. She is particularly interested in how we design pervasive, tangible and Web 2.0 technologies to fit in with everyday contexts of work, play and daily life, with a particular interest in supporting social interaction and collaboration, health and well being, and older people. She has a published book and over 90 refereed journal and conference publications in diverse areas such as pervasive computing, CSCW, HCI, e-learning, and

health informatics. She also serves in many journal editorial and conference committee roles.

Albrecht Schmidt
Albrecht Schmidt is a professor for Human Computer Interaction at the University of Stuttgart. Previously he was a Professor at University of Duisburg-Essen, had a joined position between the University of Bonn and the Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS). He studied computer science in Ulm and Manchester and receive in 2003 a PhD from the Lancaster University in the UK. His research interest is in human computer interaction beyond the desktop, including user interfaces for mobile devices and cars. Albrecht published well over 150 refereed archival publications and his work is widely cited. He is co-founder of the ACM conference on Tangible and Embedded Interaction (TEI) and initiated the conference on Automotive User Interfaces (auto-ui.org). He is an area editor of the IEEE Pervasive Computing Magazine and edits a column on invisible Computing in the IEEE Computer Magazine.

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