Guest Editorial Preface

Showcasing the MobileHCI'2018 Doctoral Consortium Researchers

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Welcome to this themed issue of the *International Journal of Mobile HCI* (IJMHCI) which showcases invited papers from participants of the Doctoral Consortium at MobileHCI'2018, the 20th International Conference on Human-Computer Interaction with Mobile Devices and Services, which was held in Barcelona, Spain, from the 3rd - 6th of September 2018. MobileHCI is a conference where innovations, insights, or analyses related to human experiences with mobile devices and mobile user experiences are presented and discussed. The conference contributions are diverse, they can deal with technology, experience, methodology, and theory—or any mix thereof, and beyond.

The call for the doctoral consortium at MobileHCI'2018 (2018) stated:

The Doctoral Consortium (DC) will take the form of a workshop where the students have the possibility to present and discuss their doctoral research with leading MobileHCI researchers. The purpose of the DC is for the students to receive constructive feedback on their thesis work, get advice about future developments, and share ideas and experiences with peer students in related areas. Successful applicants will have the opportunity to present their work as a poster. Participants will be selected based on their anticipated contributions to the breadth and depth of the intellectual discussions of the consortium. To maximize the benefits from the DC, participants should have advanced beyond the early stages in their thesis research, but not yet be in the finalizing phase of their work.

A doctoral consortium is thus an event where competitively selected (via a process of peer review of abstracts) PhD students can present ongoing work – components of their PhD thesis to date – and get feedback from a panel of senior scientists. In comparison with other events at conferences and/or workshops, a doctoral consortium is slightly different. Participants present less finished work, and also present something larger than a single study – their evolving thesis. For anyone interested in the processes involved in research, this makes it a really interesting event which provides insights and discussions you don't always get at the more usual conference/workshop events. As panel members we found that the work presented at the MobileHCI Doctoral Consortium deserved to reach a wider audience, and invited the participants to submit extended versions of their position papers to this special issue.

The PhD students who took up this challenge have responded to this task in different ways: some have decided to focus more on a specific study, while others have chosen to present an overview of their thesis project as a whole. It is worth noting that, given the nature of the work being presented, these articles should not be expected to be the polished, final pieces of work we might expect of typical journal papers; instead, they reflect PhD research at different stages of refinement and completion and thus should be viewed in this vein – almost a sneak peek at the work of the talented researchers who are joining our community!

Felix Anand Epp, in his article titled "Expressive Wearables: Practices-Oriented Codesign for New Forms of Social Mobile Technology," discusses and presents work on wearables as a form of self-expression. At the core of his work lies the question "How can wearables extend people's self-expression for changing social context?" Examining the current state of the art in expressive

wearables – such as public displays (e.g., badges) and dynamic fashion – he finds evidence that such wearables allow novel opportunities of self-expression. He proposes research through (co)design as a means to explore the identified perspectives. Following the initial ground work, Felix presents two early studies: a field study investigating everyday use of stickers as expressive wearables, and one design exploration of how an interactive accessory could support sociability. The article concludes with an outline of envisioned future work.

In "Bridging the Gap Between the Digital and Print Reading Experience," Gavin Bailey looks at how the digital reading experience can come close to the experience of reading a printed book. He asks, "Is it possible to design novel ways of interaction that improve the digital reading experience?" To date, he has developed a prototype device which uses paper as an input method to interact with digital books: turning a physical paper page causes an e-Reader device to progress through the book, allowing the reader to have the user experience of a printed book, whilst also benefiting from accepted digital conveniences and features. The developed device was tested by eight users, and the results from this test were encouraging – a majority of the participants thought a paper interface would enhance the reading experience. In addition to page turning, Gavin identifies keeping track of where you are (bookmarks) across different media as a potential field of study. An online scoping survey is presented, involving 100 participants, and the planned future work on supporting media navigation is discussed.

Hong Li is interested in supporting long distance relationships. In her article titled "Beyond the Screen: Creating Unconventional Artifacts to Support Long-Distance Romantic Relationships," she explores whether it is possible to mediate emotional communication through specially designed artefacts. She investigates the important design qualities that are necessary to support a long-distance relationship. She argues that, whilst mainstream communication technologies have provided convenient channels for people to communicate at a distance, the emphasis of these technologies is placed on functionality rather than providing the emotional communication – which Hong Li argues is necessary for geographically distant individuals to maintain ties to their romantic partners. Hong Li presents a user study based on interviews and workshops, and introduces a design concept – "Connected Candles" – where the interaction with a real candle at one end lights up a remote digital candle at the other. The Connected Candles have so far been the subject of a focus group discussion, and the author concludes by outlining her planned future work.

Niek Zuidhof, together with co-author Somaya Ben Allouch, explores the potential use of head mounted displays (HMDs) in the article titled "Exploring the Preferences of Anticipated Use of Head Mounted Displays." They report on a study with students in nursing and social work to explore attitudes and interests with regards to this type of technology – in essence, investigating how HMDs could become really useful in practical situations. The authors point out the slow uptake of wearables such as HMDs and, as such, an objective of their reported study was to gain insight into preferences on anticipated use in the early phase of HMDs. Their survey of Dutch students undertaking an educational programme in nursing or social work (N=100) showed that almost nobody had ever used an HMD. Areas of interest suggested by the respondents include situations where the HMD would allow them to have their hands free to do other things while calling/interacting, and the study provides areas of interest for future exploration. More than half of the study participants reported an intention to use an HMD in the future.

Srihari Muralidhar, in his article "Making Digital Money 'Work' for Low-Income Users: Critical Reflections for HCI," focuses on low income mobile phone users in India and how digital money/digital banking is perceived by this user group. He puts the digital financial services into a social perspective, providing rich input for future design, in particular what is needed to provide useful and appreciated digital financial services for the whole population (not just the comparatively wealthy). His paper adds to existing research on digitization and money in HCI. By presenting a case of rickshaw drivers in India and their use of Ola (an app-based taxi service like Uber) and Ola Money (an embedded m-wallet), this paper presents a case which helps the understanding of financial management practices and the different roles of mobile money for the comparatively poor.

Management of finances on a household level, the need for a daily income coupled with uncertainty and long work hours, strategies for saving as well as the use of banking are discussed to provide background for the study of the digital solution (Ola Money). The outcome of the study indicates that the digital banking system offered mixed blessings – both benefits and problems are reported. A key insight is that digital money cannot be studied separately from the social, digital and financial infrastructures within which it is embedded.

In "Eliciting Design Guidelines for Privacy Notifications in mHealth Environments," Patrick Murmann looks at privacy notifications in m-Health services. Currently, it is generally hard (if not impossible) for users to know what really happens with their data once they consent to disclose it. Patrick explores whether it would be possible to design transparency-enhancing tools that enable users to understand how their information is actually used as well as how such tools should be designed. His work is motivated by the observation that although the possibilities of employing mobile health (m-Health) devices for the purpose of self-quantification and fitness tracking are increasing, few users of online m-Health services possess proven knowledge of how their personal data is processed once it has been disclosed. The article provides an overview of privacy-enhancing technology, identifies gaps in the current literature, and reports on a study of user preferences for privacy notifications. Patrick presents a model which describes the functionality of transparency-enhancing tools (TETs), and proposes design guidelines for the design of usable TETs for privacy notifications. He outlines future work involving user tests of mock ups and prototype TETs that will allow him to validate and develop both the suggested model and the guidelines.

I hope you (as I have) will enjoy this window into the world of the PhD student and appreciate some of the rising talent in our field of study, and that those of you who are supervisors, students working on your PhD or just active as researchers in the different areas involved, will find valuable information, thoughts and discussions in the presented articles.

REFERENCES

MobileHCI. (2018). *Call for doctoral consortium.* Retrieved from http://mobilehci.acm.org/2018/2018/02/02/call-for-doctoral-consortium/

Charlotte Magnusson, PhD, MSc, is an Associate Professor at the Department of Design Sciences, Faculty of Engineering, Lund University. She is part of a group, CERTEC, which does research on Rehabilitation Engineering and Design. As part of CERTEC, Charlotte works with both accessibility and inclusive design. A starting point in all CERTEC projects is the notion of co-design – we see design processes as a collaborative effort, and the way we approach the design processes is rooted in the participatory design tradition. Charlotte is active in the intersection between designs and methods for design, and works both with research in interaction design and methods for user involvement in design processes. Within interaction design, Charlotte has been particularly interested in the non-visual interaction channels, and has led and worked in several national and international projects relating to non-visual interaction design for persons with visual impairments. More recently her research has also been addressing how to encourage activity and support rehabilitation after stroke.