

EDITORIAL PREFACE

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Welcome to the latest issue of the *International Journal of Mobile Human Computer Interaction* (IJMHCI). This issue has a strong focus on evaluation, a particularly complex and still-evolving concern for the mobile HCI community. Including articles on evaluating the emotional and contextual impact of audio feedback, unobtrusive evaluation of mobile technology use by leisure cyclists in the wild, evaluation frameworks for context awareness, and evaluating quality of experience for m-Health services, this issue presents interesting and practical, applied knowledge which should be of value to readers across a broad spectrum of the mobile HCI domain.

The first article, entitled “*Affective Quality of Audio Feedback on Mobile Devices in Different Contexts*”, is by Julia Seebode, Robert Schleicher, and Sebastian Möller. This article focuses on the use of non-speech audio feedback in mobile device interfaces. The authors recognize the absence of standardized evaluation protocols for the subjective quality of audio feedback, in particular the affective quality (or emotional impact) thereof within different contextual settings. Their research attempts to investigate, via a series of studies, three key areas: what kinds of auditory messages are suitable for use as feedback in mobile systems?;

how is such feedback perceived in terms of the affective impression on users?; and to what extent does the context of use influence auditory perception in terms of the former two issues? They conclude that “semantic relatedness” of sound to function is critical, demonstrate that, although context of use *influences* the affective impression of sounds, the overall functional applicability of audio feedback is not unduly influenced by context, and that on the proviso that audio is designed to be sufficiently unobtrusive, it is generally perceived as pleasant as opposed to disturbing, regardless of context.

In “*Unobtrusive Observation of Cycling Tourists in the Wild*”, Benjamin Poppinga, Martin Pielot, Wilko Heuten, and Susanne Boll recognize the challenge of observing cycling tourists in the real world using either in-situ or post-hoc study methods, claiming that traditional observational techniques (e.g., shadowing or diary studies) are too obtrusive or interruptive relative to the intimacy of experience inherent in cycling as a leisure activity, and that post-hoc techniques (e.g., interviews) rely on recall of earlier experiences and so lack detail and situatedness. To address this challenge, they investigate how a hybrid approach, using both in-situ and post-hoc methods, can provide detailed insight without disturbing cyclists

and, in so doing, they attempt to address three research questions, namely which in-situ data collection technique is least obtrusive/disturbing?, how does their hybrid approach impact the communication between the evaluator and participant?, and how should the in-situ data be used to support post-hoc interviews? They demonstrate the efficacy of their approach via a field study of 11 tourists asked to use a vibro-tactile bicycle orientation aid during their vacation, highlighting that as well as returning detailed and accurate insight, their approach supports improved communication between the experimenter and participants. The authors suggest that their hybrid observational approach would be valuable within other mobile settings.

In the third article – “*An Evaluation Framework for Context of Use in Mobility*” by Yaser Mowafi and Ahmad Zmily – we read about an analytical framework for modelling and evaluating elicited context data and quantifiably determining the nature of its relevance towards defining context awareness. The framework encompasses an integrated approach to context awareness which supports linking context awareness to multiple context data and quantifying their interrelationships. The authors validate their proposed framework using a case study which incorporates user activities across a range of situations and within a spectrum of environmental contexts. The authors posit that their framework provides “preliminary guidelines for determining representative measures of user and physical context in the design and evaluation policies of context awareness in mobile human computer interaction”.

The final paper, by Lea Skorin-Kapov, Ognjen Dobrijevic, and Domagoj Poplica, is entitled “*Towards Evaluating the Quality of Experience of Remote Patient Monitoring Services: A Study Considering Usability Aspects*”. In this, the authors acknowledge that mobile technologies are increasingly being recognized as an effective mechanism for delivering healthcare services but that a key issue regarding the successful delivery and acceptance of emerging m-Health systems is meeting quality of service (QoS) and quality of experience (QoE) requirements. In this paper, they highlight the paucity of research into QoE compared to QoS for e-Health services and argue for the need to study and model the relationship between various influencing factors and user-perceived quality metrics associated with the QoE. They therefore focus on the evaluation of QoE of non-emergency, remote patient monitoring services, with the intent to investigate the impact of QoE influence factors and usability-related concepts on overall subjective quality ratings. They present the results of a detailed QoE study of users testing a prototype mobile health service system designed to measure vital signs via medical sensors.

All that remains is for me to welcome you again to this latest issue of the IJMHCI: I hope that you enjoy reading the exciting evaluation-focused research included within!

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IJMHCI