

Introduction to the Minitrack Human-Computer Interaction in the Digital Economy

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As the Human-Computer Interaction (HCI) minitrack continues to evolve we have witnessed new and exciting avenues for exploration. In 2006, this minitrack was developed to provide an outlet for a variety of HCI research streams from a variety of disciplines. In 2013, we began including the disciplines neuroscience and design science. With the ever-increasing role of information systems in all aspects of society, we moved the minitrack to the *Internet and Digital Economy* track in 2018, with the focus on the role of *Human-Computer Interaction in the Digital Economy*. Whereas traditional desktop computers continue to be important and widely used information systems—especially in organizational and home office settings—the area of human computer interaction has broadened considerably, with a proliferation of input devices, contexts, and form factors. At the same time, the design of human-computer interfaces continues to be a crucial factor influencing users' affective and cognitive reactions and behaviors; these trends—and others—contribute to the continued need for theory-based HCI research in a variety of contexts and domains. Our aim is to get a truly cross-disciplinary understanding of HCI that informs research and impacts design practices.

The papers selected for the competitive HCI minitrack draw on this rich cross-disciplinary tradition. Given that HCI continues to evolve, we aim to provide a forum for the exchange of novel thoughts and ideas. We believe that the nine papers presented in this minitrack are interesting and thought-provoking and are relevant for both research and practice. The accepted papers provide a cross-section of HCI and interface design issues in general as well as emerging contexts.

The first set of papers broadly focuses on mobile and social interactions, both between the users and the device and between the users and organizations. In the paper “Subjectively Experienced Time and User Satisfaction: An Experimental Study of Progress Indicator Design in Mobile Application,” Sara Willenmark, Nikola Pantic, and Hannah Pehrson explore the concept of “subjective experienced time” and provide insights into the relationship between the

degree of feedback provided by progress indicators and the subjectively experienced time and user satisfaction. Next, the paper “Money vs. Social Life: Why People Choose Not to Use Facebook Messenger Payment,” by Lingyuan Li and Guo Freeman explores why people are unwilling to use Facebook Messenger payments and highlight diverse perceptions of integrating P2P payments with social media. The third paper in this set, titled “Is Making Mistakes Human? On the Perception of Typing Errors in Chatbot Communication,” by Johannes Bührke, Alfred Benedikt Brendel, Sascha Lichtenberg, Maike Greve, and Milad Mirbabaie, examines how human-like errors in human-computer interaction are perceived by users and highlight the challenges of transferring human-to-human communication properties to the context of conversational agents. In the final paper in this set, “How to Conquer One’s Weaker Self: Do Autonomy Affordance Increase Goal Performance and Well-being?,” Henner Gimpel, Niclas Nüske, and Christian Regal analyze whether and to which extent the provision of autonomy affordance in digital self-tracking information systems promotes progress and well-being while working towards self-set goals.

The second set of papers focuses on the nexus between online and offline interactions. In the paper “Emotion-based IS support for Customer-Salesperson Interaction,” Michael Meyer, Dominik Siemon, and Susanne Robra-Bissantz report on a design science research project aimed at developing emotion-based IS support for the interaction between customers and salespeople in stationary retail contexts. Next, in the paper “The Roles of Digital Exhibition in Enhancing Immersive Experience and Purchase Intention,” Sojung Yoon and Jai-Yeol Son examine digital art exhibitions and show that two features—animated images and storytelling description—not only enhance people’s immersion and willingness to pay higher ticket prices, but are also more effective when adopted together. In the third paper, “The Effect of Operating in Many Realities on Memory: An Experiment on Memory Recognition in Extended Realities,” Nannan Xi, Juan Chen, Filipe Gama, Henry Korkeila, and Juho Hamari examine the effects of virtual reality (VR) and

augmented reality (AR) mediation on the ability to recognize text and image-based information and suggest that fully physical (neither AR nor VR) or fully digital environments (AR and VR used together) are preferred over either VR or AR alone. In the final paper of this set, titled “Virtual Visitation: Conceptualization and Metrics for Digital Twinning of Large Interactive Social Events,” Kai Riemer and Mike Seymour examine Neural Rendering (NR) of digital humans, a rapidly developing field of HCI, and derive a conceptual framework for guiding the design of digital characters and for classifying NR use cases.

Finally, the paper “Information Design for Personas in Four Professional Domains of User Experience Design, Healthcare, Market Research, and Social Media Strategy” focuses on the use of personas in user experience (UX) design. Kathleen W. Guan, Joni Salminen, Lene Nielsen, Soon-gyo Jung, and Bernard J. Jansen identify and compare the elements in the personas applied in different domains and provide guidelines for professionals interested in developing personas for recruiting users, understanding barriers to positive user experience, and building online communities.

We would like to sincerely thank the researchers who contributed to this minitrack. Also, we would like to express our thanks for the outstanding efforts put forth by the many reviewers who helped ensure that the papers included in this minitrack are both interesting and relevant to the HCI field.