

Research & Design Watch

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HCI International Conference 2016

18th International Conference on Human-Computer Interaction
17–22 July 2016 | Westin Harbor Castle Hotel, Toronto, Canada

The annual HCI conference serves as a forum for the exchange of knowledge about how people use computers and how computers can impact on the quality of our lives and on the world around us. Human-computer interaction is a multidisciplinary area of research, and it is represented in the 13 simultaneous affiliated conferences that were available to participants under the aegis of HCI 2016—each conference addressing some aspect of human-computer interaction.

HCI 2016 consisted of two days of tutorials (July 17–18) and three days of parallel paper sessions, posters, and exhibitor booths (July 19–21). The keynote address by Jennifer Preece (Professor and Dean Emerita, College of Information Studies, University of Maryland, USA) focused on the challenges faced when developing computer technology and user interfaces that engage people as “citizen scientists” in documenting, and thus contributing to the welfare of our environment. Prof. Preece’s comments about the importance of user experience, participatory co-design, and user-centered design in the creation of effective user-computer interface resonated throughout the successive sessions, papers, and posters of HCI 2016.

One of the conferences—the 5th International Conference on Design, User Experience and Usability (also known as DUXU 2016)—was of special interest for information designers as it highlighted the relationship

between user testing and the organization and visualization of information in the development of interface design. Aaron Marcus, long a champion and practitioner of user-centered information and user-interface design, was the Program Chair for DUXU 2016. Marcus also led tutorials, one of which being *Mobile Persuasion Design+UX: How can Information Design plus Persuasion Design Change Behavior?*

Many papers and posters at HCI 2016 dealt with perception and decision-making in the development of computer-user interface, often in relationship to health care and education. This focus was reflected in the 29 sessions with their 157 papers of DUXU 2016; each session featured 4–7 paper presentations. Parallel sessions emphasized the user experience in subjects such as cross-cultural communication, design and creativity, game design, ergonomics, sustainability, and designing for and with people with autism. Several topics spanned multiple sessions including Information Design and UX—I and II.

The Information Design and UX sessions were chaired by Carla Galvão Spinillo, (Federal University of Paraná, Brazil) and Luciane Maria Fadel, (Federal University of Santa Catarina, Brazil). The papers in these sessions focused on the design of information based on people’s ability to correlate form with meaning and to accomplish tasks based on the relationship between

form and meaning. Three papers examined the visual organization of information. The paper by Luciane Fadel, et.al. looked at the use of universal design principles in the interface of a MOOC (Massive Open Online Course), whereas Heloisa Candello's paper analyzed the literature to determine that new research practices are needed to better evaluate and design decision-making interfaces. The paper by Rafael Pereira de Araujo, et. al gave suggestions about how choice and organization of informational elements can help players stay focused on the flow of a videogame. Two further papers discussed the visual display of data. Patricia Search's paper advocated that data displays engage more senses than just sight, and Verena Lechner, et. al reported on test results on a tool to visualize data in radar charts so that database clusters can be easily recognized and understood. Four other papers focused on the incorporation of user experience into health information design. Eurides Florindo de Castro Jr, et al. reported on people's ability to understand the health icons of an online Brazilian app and underscored the importance of reconciling a user's familiarity with an icon's visual appearance to the actual meaning of the icon. Carla Galvão Spinillo's paper made the case that animation, rather than static images, can more effectively help patients understand how to use different types of medicines. Armando Cardoso Ribas, et. al emphasized that the different meanings deaf people can attach to images need to be incorporated into the design of public accessibility icons. Judith Moldenhauer et al. discussed the use of both community-based participatory research and user-centered design in materials for Detroit "citizen scientist" residents engaged in two projects about health and the environment.

Abstracts and the full text for the above papers and all DUXU 2016 papers are available in a three-volume set published by Springer. See the link through HCI 2016

conference proceedings at <http://2016.hci.international/proceedings>.

The connection between user experience, usability, and the design of information is clear—and very important. Designers need to be involved with the development of computer technologies from the very beginning of a project to ensure that form and function effectively respond to the informational needs and context of those who use the technologies. The HCI conferences are excellent avenues for information designers. At these conferences information designers can encounter usability research in a variety of disciplines, share their research and work, and discover new project partners.

HCI 2017 will be held in Vancouver, BC, Canada, July 9–14. For more information about HCI 2017 and the 6th International Conference on Design, User Experience and Usability (DUXU 2017), visit <http://2017.hci.international/>

Submission date: 26 August, 2016

Accepted date: 20 September, 2016

About the author

Judith A. Moldenhauer is Associate Professor of Graphic Design at Wayne State University in Detroit, Michigan, USA. Her research and work focuses on information design, especially for healthcare, and she has authored papers and journal articles on information design. She was a partner in the US FIPSE grant, "Seeing the Body Elsewise: Connecting the Life Sciences and the Humanities," and in the US/EC FIPSE grant, "Development of Core Competencies and Student and Faculty Exchange in Information Design." Honors include several design awards, a 2007 Fulbright Fellowship to Sweden, and Life Fellow in the Communication Research Institute, Australia.

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