## 5th ACM Symposium on Computer Human Interaction for Management of IT

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The 5th ACM Symposium on Computer Human Interaction for Management of Information Technology (CHIMIT) was held in Boston, Massachusetts, on December 4–5, 2011 (visit chimit.acm.org for detailed information about its organization and program). Information technology (IT) is central to modern life and occurs in our homes as well as in enterprises. It is important that we develop usable solutions for those using, configuring, and maintaining the software and hardware components (e.g., wireless access points, network routers, firewalls, virus scanners, databases, Web servers, storage systems, and backup systems) that support our work and personal lives. CHIMIT has been addressing human-computer interaction for IT management since 2007. As in past years, the CHIMIT symposium was held adjacent to the USENIX LISA (Large Installation System Administration) conference to encourage attendance by the system administrators whom CHIMIT researchers aim to support. However, it is important to note that CHIMIT research also considers the problems of home users, who too often take time and resources away from the real work at hand in order to manage the underlying IT infrastructure.

The morning session began with a keynote address by Marti A. Hearst, "Bringing HCI to the Federal Government." Marti is an HCI professor in the UC Berkeley School of Information who has been on leave of absence to serve as the Chief IT Strategist at the US Patent & Trademark Office. Her talk focused on how the infusion of usability techniques helped the current administration transform the way US federal agencies design and build information technology. In the afternoon, Kyrre Begnum (Oslo and Akershus University) presented the invited talk, "What a Webserver Can Learn

from a Zebra and What We Learned in the Process" on behalf of his co-author Johan Finstadsveen (University of Oslo). This engaging talk had the audience considering how the defensive tactics of wildlife species can inspire new defense mechanisms for our IT infrastructure. We also enjoyed two invited presentations that exposed CHIMIT attendees to relevant research published in other venues last year. These included "The Margrave Tool for Firewall Analysis" (T. Nelson et al.), which was prsented at LISA in 2010, and "Heuristics for Evaluating IT Security Management Tools" (P. Jaferian et al.), which won the Best Paper award at the Symposium for Usable Privacy and Security (SOUPS) in 2011.

The technical program included three presentations of papers related to the work of system administrators. The first, "Understanding and Improving the Diagnostic Workflow of MapReduce Users" (J.D. Campbell et al.) was a joint submission from nine researchers from Intel Labs Pittsburgh, Carnegie Mellon University, and DSO National Laboratories in Singapore. This was followed by research from IBM, "Description and Application of Core Cloud User Roles" (T. Bleizeffer et al.). Another presentation by IBM Research Brazil (C. de Souza et al.), "Information Needs of System Administrators in Information Technology Service Factories," provided a novel perspective on the work in large IT service factories. We had one presentation, "Third-Party Apps on Facebook: Privacy and the Illusion of Control" (N. Wang et al., Pennsylvania State University) that focused on end users and the privacy issues they face on Facebook due to the actions of third-party applications.

The poster session included four posters from academic and industrial research and generated a lively exchange between the conference attendees and poster presenters. Lance Bloom from Hewlett Packard presented design principles for IT storage capacity management. Ryan Dellolio from George Washington University described a service-oriented, user-centered approach to business process management for back-office IT operations. Kurt Keville from MIT described the technologies he and his colleagues used to create and test a High Performance Embedded Computing (HPEC) cluster. Kirstie Hawkey from Dalhousie University presented her research agenda in visual analytics for system administrators.

On Monday, December 5, a special joint workshop was held with LISA, bringing the CHIMIT research community and practicing system administrators together to discuss current topics and interests. The workshop hosted 12 participants hailing from several sectors, including academia, government, and both large and small organizations. Overlapping areas of interest identified in the workshop included, but are definitely not limited to:

- The importance of mental models in system administration. How can we help with the documentation and development of tools and visualizations?
- Related to mental models is complex system visualization. How can tools help system administrators "see" their system at various levels of detail and from different perspectives?
- Knowledge management and knowledge sharing, both within teams and across organizations. How can we more easily capture the information? How can we better structure that information for both browsing and searching?
- Communication and collaboration. System administrators work at the intersection of several groups of stakeholders: how can we better understand their work and responsibilities to help them communicate and collaborate more effectively and efficiently?
- User experience in system administration. Many of us focus on graphical user interfaces, which are very important, but what does a good user experience mean for a command-line interface? How can we improve the user experience in text-based environments? As an extension, how can we use usability studies to help us identify the pitfalls in scripting languages? What heuristics are useful?

Feedback from the workshop has been very positive, with participants indicating they were pleased with the topics, mix of participants, the opportunity to network and test ideas, and the overall concept of mixing the two groups. Outcomes of the workshop include joint research projects and a possible magazine article. The workshop organizers offer a special thanks to ACM SIGCHI, who provided a grant to allow this workshop to take place.

All in all, we consider CHIMIT to have been successful this year, as we achieved our goal of fostering collaboration between researchers in fields such as human-computer interaction, human factors, and management and service sciences, and practitioners in the management of large IT systems. However, we continue to seek ways to increase the number of submissions to CHIMIT and the number of attendees as we look to the future. We are currently in the process of restructuring CHIMIT to try to better meet the needs of a greater cross-section of its constituents. Kirstie Hawkey, General Co-Chair (hawkey@cs.dal.ca), and Paul Anderson, Technical Co-Chair (dcspaul@ed.ac.uk), are beginning their second terms on the Organizing Committee. They would welcome suggestions about how to improve the next CHIMIT.