Introduction and topics

Multi-touch technologies have a long history—one that even predates the public adoption of graphical user interfaces. While early systems offered glimpses into its potential, they were hampered by the technology of the times: Processors were not fast enough to adequately process multiple inputs; projector-based systems offered low resolution, a bulky setup, and shadowing effects; users often had to be inconveniently tethered; ad-hoc systems were expensive to build and difficult to deploy; etc. Recently, multi-touch hardware and software support has improved dramatically. Jeff Han’s TED talk inspired us to build our own low-cost large-scale interactive surfaces. Commercial systems have become available from handhelds, tablets, whiteboards and tabletops. Multi-touch toolkits have proliferated.

As a result, the research focus has shifted to user experience. The challenge now is to devise appropriate user interfaces that take advantage of multi-touch. The change from single to multiple inputs, often accompanied by a transition from single to multiple users, drives researchers to re-examine the foundation of graphical user interfaces. There are a number of rich research questions that have yet to be fully addressed, including issues of orientation, occlusion and reach, gesture interaction, and application support.

This special issue aims to present a set of high-quality, high-impact, original research outcomes in the development, evaluation, and deployment of multi-touch systems. We invite contributions relating but not limited to:

- Development and critique of technologies for multi-touch interaction
- Design guidelines for developing technology for multi-touch interaction
- Methods and tools for the evaluation of multi-touch systems
- Case studies in domains using multi-touch systems
- Multi-users in multi-touch environments
- Experiences of designing applications for multi-touch systems

Paper submission

Manuscripts should not exceed 8000 words and papers should be submitted according to the IJHCS Guide for authors and will be refereed in the standard way. Articles must be based on original research, although extended versions of conference papers may be acceptable if they contain at least 50% new material. All manuscripts should be submitted online. The IJHCS Guide for
authors and online submission is available at http://ees.elsevier.com/ijhcs. To submit to the special issue, please select Article Type “SI: Multi-touch Systems” and clearly state in the “Enter Comments” section that the paper is intended for the “Special Issue on Development, Evaluation and Deployment of Multi-touch Systems”. If you are a first time user of the journal’s online submission tool, you will have to register yourself as an author on the system.

Timeline

Submissions due: 30th July 2011 (at http://ees.elsevier.com/ijhcs)
Notification of 1st review: 15th October 2011
Revised versions due: 30th November 2011
Final notification: 15th January 2012
Final revisions due: 1st March 2012
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