In-Situ Mobile Experimentation

Technology has played a significant role in development at LRDC, from early work on computer-based environments for the workplace to the development of intelligent tutoring systems. Recent years have seen the development of a web-based peer review system, tutors that can respond adaptively to both uncertain knowledge states and affective reactions that are revealed in student dialogues, and that can help students analyze the structure of arguments.

The advent of smartphones and Internet tablets provides unique opportunities for incorporating technology into learning and research environments. LRDC Research Scientist Jingtao Wang and colleagues Xiang Xio, Computer Science, and Teng Han, Intelligent Systems Program, are investigating the use of hand-held devices for use in research projects to run large-scale, in-situ experiments.

The steep learning curve of building mobile applications makes it difficult for researchers in most fields to design and deploy cognitive, behavioral, and social experiments on mobile platforms. Inspired by contextual inquiries with domain researchers, Wang and colleagues have developed e-Chimera, a visual end-user programming environment for designing and prototyping experiments on mobile devices.

Kudos . . .

New Grants

“Understanding and improving curriculum materials design practices for effective large-scale implementation in science”
Christian Schunn
Co-PI with D. Bernstein, S. Mckenney, B. Drayton, J. Barber (together with TERC, UC Berkeley, University of Twente), Funded by the National Science Foundation.

“Pittsburgh High-Definition Fiber Tracking (HDFT) Traumatic Brain Injury (TBI) Transformative Advancement Plan,” Walter Schneider and David Okonkwo, Funded by the David Scaife Charitable Foundation.

Recent Publications

