Thank you for your generous contribution to Stanford’s Human-Computer Interaction courses! Armed with a classroom of laptops, our Interaction Design Studio practicum was able to take a new and exciting direction this year. Below are some photos of the highlights!

**Dell Laptops and Phidgets**

Early on in the course, we integrated the laptops with University of Calgary’s “Phidgets” (physical widgets), which allowed us to prototype technologies and designs that go beyond the GUI. Soon, students began implementing designs that would light up, move around, sense pressure and light, while interfacing easily with the C# programming language.

*A Phidgets interface board connected via USB to students’ laptops.*
On the laptop platform, Scott Klemmer works with students for training on the hardware and how to implement portable devices.
(Nearly) Invisible Computing
The first class project to utilize the laptops was in the design of “nearly-invisible” computing -- that is, technology that can transition between reactive design (sitting quietly in the users’ periphery) and proactively requiring attention. Projects included an anti-slouch chair (which began to vibrate as your posture waned), an active cellular phone battery charger and an intelligent refrigerator. All the projects were prototyped on the laptops, some integrating the Phidgets to interact more realistically with the world.
Phidgets attached to the laptop in the background control sensors on the chair, triggering a vibrating mechanism attached to the back of the chair to activate when weight distribution indicates the user is slouching.
A prototype system using the laptop for input/output, which covered up all but the relevant parts of the laptop’s screen and keyboard to imitate the device.

**Gates: Computing in the Environment**

The final project drew its inspiration from Christo’s The Gates at Central Park, challenging students to design and implement a full-sized “gate” in a large physical space. Students had their laptops, the Phidgets, large projectors, webcams, and their own creativity at their disposal. Final projects ranged from an interactive art exhibit to a gate-sized music controller to a new take on the game of Limbo.
One project group created an enhanced video doorbell and answering system, integrating videophone technology. An Intel laptop is actually hanging behind the door to act as the screen.
This limbo game involved a periodically-moving limbo bar (thanks to the Phidgets), a large projection screen with a unique visualization layout, and a webcam to capture limboers’ expressions as they struggle to get under the bar! The laptop controlling the system is visible on a chair in the background.

Thanks again!

Your donation allowed our class to redefine interaction design for a group of students. These students walked away not only knowing how to design effective computer systems, but also with the knowledge that computing has evolved beyond the “keyboard and mouse” paradigm. The projects that took shape over the course of this quarter would not have been possible without your generosity. On behalf of Stanford, thank you for contributing to the education of tomorrow’s designers!
The entire CS 247A crew