DESIGN, MAKE, PLAY

Photos: Sam Gangwer, Orange County Register

What if you could turn a knob and dial down a friend's Twitter feed, fading those tweets into the background rather than rudely "unfollowing" him? Called AmpDamp, this conceptual product is an analog interface that allows users to filter their digital information stream, diplomatically managing the problem of too many voices.

—the Multidisciplinary Way

by Lori Brandt

Or, what about a toy line designed to re-channel boys' aggressive and competitive impulses? Pitched as "modern toys for mannered boys," Boys 2.0 playthings are made to appeal to kids, while encouraging empathy, collaboration and responsibility.

And for couples, there's STRING, an interface for emotional connection. Carry around a short piece of conductive string in your pocket or purse; let your significant other know you are thinking of her by touching the string, which sends an abstract visualization to her computer screen. STRING challenges the dichotomy of the virtual and the physical in a "discreet, yet interpretive and beautiful way," according to its design team.

These are three of the six original product ideas created by doctoral students from across North America and Europe who gathered over the summer to participate in a "Values in Design" workshop at UC Irvine. The workshop, developed and directed by informatics faculty members Geoffrey Bowker, Judith Gregory and Cory Knobel, illustrated the powerful imagination and creative problem-solving that comes from multidisciplinary collaboration.

Values in Design is an emerging field in which scholars integrate human values – privacy, community, trust, dignity, security, respect and freedom from bias – into technological innovation. It unites researchers and practitioners from computer science, engineering, science and technology studies, anthropology, communications, law, philosophy, information science, and art and design.

Bowker, a pioneering scholar in this new field, explains, "In a world where information systems increasingly mediate our social and business interactions, we want to be sure that they reflect – not distort – our values."

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Opposite (top): University of Maryland student Jes Koepfler (and an LED) light up at her project's success.

(Bottom): UCI's Garnet Hertz (center) helps students at the workshop, which promoted a values-based approach to technology design.

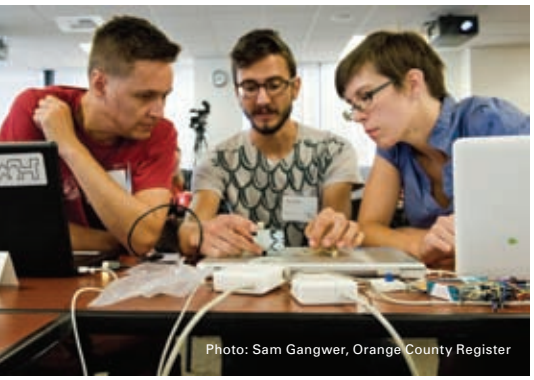
At the workshop, 36 doctoral students, divided into six teams, spent an intense week designing and building technologies that embody a set of social values.

"You don't realize how hard it is until you really start doing it," says University of Maryland participant Jes Koepfler. "Our group spent all week arguing; it was engaging and fun. I was able to completely absorb myself in the experience, and I've begun thinking about values in my own work."

Thomas Lodato, from Georgia Tech, was impressed with how the students were grouped, by disciplines and interests, and with the results. "It was like we were glimpsing the future of design as a disciple moving across disciplines."

Bowker, Gregory and Knobel will be sharing their design philosophy with the UCI community through the EVoKE (Emerging Values in Knowledge Expression) Lab in Calit2's eMedia studio. The lab offers an open space where students are encouraged to drop in and learn how to design things while thinking about values.

"We have a deep commitment to theory, but also a strong sense of play," says Knobel, who is the EVoKE Lab executive director. "Design is a process of problem-solving that applies to every field, and we want to engage people in creative ways. We're planning a space where people can't help but make something before they leave."



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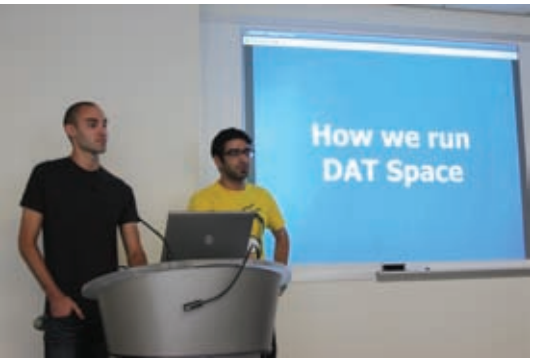

(Top) Doctoral students from across North America and Europe convene at UCI for a "Values in Design" workshop. Georgia Tech student Thomas Lodato (center) said: "It's like we were glimpsing the future of design …"

(Bottom) UCI electrical engineering major Nick LaJeunesse (left) and computer science major Vahan Hartooni hail DAT Space – Design, Art and Technology makerspace – as a place where students can develop their creativity and cultivate innovation.

Bringing people together to make something is also the goal of DAT Space, a Design, Art and Technology makerspace founded last year by a group of undergraduates. Offering a physical space where students can meet and work together on creative projects, DAT Space aims to lower the barrier for students to advance in their creative projects and drive them to innovate. Workshops, geared toward students of all levels and abilities, have included soldering, espresso brewing, mini-terrarium building, and programming with Max (a multimedia, electronic music and sound design software).

"We feel that hands-on skills and self-made projects aren't encouraged as much as we'd like in a university setting where knowledge skills are given higher priority," explains Vahan Hartooni, DAT Space founder. "We advocate developing skills that allow students to be more expressive and creative with technology."

These students are inspired by "maker subculture," a technology-based extension of the DIY (Do it Yourself) movement. Wired Magazine Editor Chris Anderson argues in his new book "Maker," that "making" is the new Industrial Revolution and has the power to revive manufacturing in America.

Garnet Hertz, artist in residence and informatics research scientist, is an advisor to DAT Space and associate director of the EVoKE Lab. "The process of solving multidisciplinary problems often becomes a bricolage of technologies, knowledge, locations and people that require individuals and teams to go beyond their comfort zones and figure out new things," he says. "This process of discovery often does not have a formal framework or infrastructure; in this way, innovation is a DIY practice."