UNDERGRADUATE

An "A" for Altruism

Service Learning Brings Classroom Concepts To Life

When planning the curriculum for her undergraduate human-computer interaction (HCI) class last winter, *iSchool* Assistant Professor Jennifer Rode decided she needed to find a different way to connect the concepts students were learning in the classroom to the real world. Instead of projects based on model problems and case studies, she chose to have students work with non-profit organizations in the Philadelphia region and assist with technology-related development with a focus on meeting people's needs.

"The benefit of working with an organization rather than a case study is that students have the opportunity to work with real clients, better understand organizational culture, and learn about the constraints of technology within different environments," Rode says.

Students interacted with such organizations as Drexel Smart House, the ipl2, and the Jewish Federation of Greater Philadelphia to provide them with meaningful services in relation to user-facing technology development.

Jewish Federation of Greater Philadelphia
One People • One Community • One Federation™

Working with the Jewish Federation, Information Technology Senior Lisa Kolibabek's team assisted in the development of an iPad application aimed toward enhancing donor relations. The students analyzed the application's interface design, or how it would be used, rather than focusing on its technical specifications.

"We were concerned with design and usability and had to totally disregard anything involving how the application would actually work," said Kolibabek. "Though initially it was challenging to see the development of an application in the aesthetic and usability sense, it became easier as the project progressed."

Kolibabek says her team learned a lot from working with real-life users by conducting multiple usability studies, studies of how well the product met different people's needs to discover how easy it is to use. These studies helped the team make appropriate recommendations for revisions.

Being involved with an organization that has a mission of service was also an important component of the project. She notes that she and her group members found the clients' passion for their work inspiring.

"This motivated us to do our best in designing an application that would enhance their presentations to donors, and would hopefully ultimately result in increased donations."

Website usability was the focus of a group of students working with Drexel Smart House — a University City-based project through which Drexel researchers are developing an environmentally friendly, technologically advanced house. Cody A. Ray, past-president of the Smart House, is enthusiastic in his response to the service learning projects, saying that the students' work impacted the organization by opening it up to new ideas, new approaches, and new methodologies.

"As engineers, those of us working with the student team have grown as a result of our new knowledge of user-centered design practice," he notes.

Bachelor of Science in Information Systems pre-Junior Amber Heilman, a member of the group that worked with the Smart House, said that the real-life application of the product was motivational to the team as they worked toward the project's completion. Knowing that their concepts and ideas could be implemented, the students followed an interactive design process they learned in class and developed a collection of mock-up screens that increased the usability and focus on the organization's site.

"It's beneficial to interact with real consumers and work toward a unified goal with both design and client needs," says Heilman. "We can now say that we successfully developed a user-friendly website that might potentially be put into action."

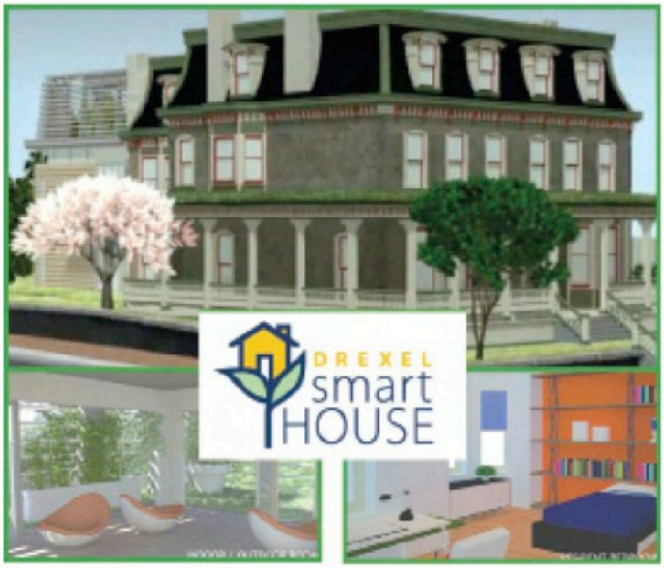
While their experiences overall were positive, both Heilman and Kolibabek note that working with real-life clients can be a challenge. Balancing the needs of multiple stakeholders and time constraints meant that projects did not always go smoothly.

"Because a project that is centered on design is almost impossible to do without real-life meetings, it was vital that we all made sacrifices in order to meet and work on our project," said Kolibabek. "Another challenge was that instead of thinking of the technical side of the application (what is it going to do and how is it going to do it), we had to think of the design aspects of the application (what the user will be able to do, and how the user will be able to easily do it)."

Rode says that these limitations are typical of real-world projects, and learning the skills to face such challenges is vital for HCI practitioners.

Thus, the benefits outweigh these obstacles, and clients like Ross are thrilled with the results. His experience was so positive, in fact, he says he is already developing project ideas for the next class of HCI students.

"Seeing students learning and excited about tools and approaches that are cutting-edge even in industry while still in school, and applying them to our project is definitely a rewarding experience," he says. "It reminds us that in a few years when these students graduate, they'll be bringing fresh thoughts and ideas and problem-solving skills, and helping innovate in their own areas."



Exterior and interior renderings of the Drexel Smart House and the Smart House Logo

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Amber Heilman, BSIS