

# IST 331 projects make real-world impact on community

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by **Stephanie Koons**, writer/editor for the College of IST

Students at Penn State's College of Information Sciences and Technology (IST) learn business and technical skills in their classes that they will eventually take into their careers. However, in IST 331, a human-computer interaction class taught by Dr. Frank Ritter, the experience that students gain by analyzing organizations' technological services can be directly applied to the "real world." For Katrina Layman, an IST student who took the class in spring 2012, the benefit of the project was twofold—her group helped re-design the website of DiscipleMakers, a Pennsylvania-based Christian mission organization in which she plays an active role. In an effort to expand its reach, the organization has since adopted many of the group's recommendations.



Katrina Layman and her group helped redesign the website for DiscipleMakers as part of her IST 331 class project

"Their mission is to 'Reach the campus, reach the world' with the gospel," Layman said.

In Ritter's class, which he has taught since 2001, students act as information technology consultants for small businesses, nonprofit organizations and Penn State websites. During the spring semester, Ritter said, 90 students, organized into numerous groups, completed 22 reports. Ritter noted that over half of these reports (15 of them) [1] "were good enough to strongly encourage the students to share the report with the organization or I sent it directly to them (with permission of the students)."

"Part of the mission of the college and the university is to do outreach," Ritter said, "and this is direct outreach."

The organizations for which the students prepared reports included Penn State, the Security Analysis and Risk Management Association (SARMA), the Ramada Inn of State College, statecollege.com, the Penn State Registrar and the University of Iowa's computer science department. The students mainly looked at organizations' websites, analyzing their interface usability, design and fonts.

“If (the students’) suggestions are followed, usability will improve for these sites,” Ritter said.

In addition to helping organizations achieve their business goals, he said, the class projects also aid the students in developing analytical and communication skills, and gaining an upper hand in the job market.

Some of the students in the IST 331 class prepared reports on organizations that they had personal connections to, including Layman, who serves as the student executive committee president for DiscipleMakers. Her group also included Christina DiPietro, David Lovecchio and Curtis Hinterberger. The students analyzed DiscipleMakers’ main website, [www.dm.org](http://www.dm.org), which is available to everyone, and another site, [www.staff.dm.org](http://www.staff.dm.org), that is tailored to its staff members.

DiscipleMakers began at Penn State in 1981, the students reported, and has since then grown to include eight other campuses. By the end of 2007, the organization had 48 paid staff members and reached \$2 million in income.

“At the rate this organization is growing, they will need to look into creating a more organized and user-friendly website,” the students wrote in their report.

The IST 331 group first analyzed the user profile of DiscipleMakers’ main website by gathering data using Google Analytics (a free service offered by Google that generates detailed statistics about the visitors to a website). After analyzing the data, they “made conclusions about how the website is being used by users,” they wrote in their report.

The second analysis the students explored was a task analysis of both the DiscipleMakers’ main website and its staff website. The analysis involved the examination of completion times for specific tasks from the websites. The same three subjects were used to test both websites--female undergraduate students at Penn State who lived in the same building. The specific tasks were chosen based on their importance and use on the site. Layman and her fellow group members found that compared to the main website, the staff website was significantly more difficult to navigate.

The third analysis the group explored was DiscipleMakers’ main website using a perception analysis.

“It was our goal to explore reasons why the visual features of a website are important, as well as to investigate what a user perceives as they analyze specific areas of different websites,” the students wrote.

“The most significant issues that we found with the websites were the lack of organization shown on both websites, especially the staff website and the lack of aesthetic appeal on both websites,” Layman said.

The students reported that compared to a similar Christian organization’s website (Penn State Cru), DiscipleMakers’ website could benefit from some improvements to its color scheme choice and organization of information.

“We recommended that they restructure the location of certain links based on the response times our test subjects had in finding the links,” Layman said. “If it took the subject a long time to find a link then the location of the link may not have been intuitive or the wording may have been poor.”

Layman and her fellow group members also suggested that DiscipleMakers change its color scheme to “something more exciting and appealing to users.” In addition, they made a few suggestions about the pictures on the main website, including adding captions and having

more candid photos.

According to Layman, DiscipleMakers' staff members have been receptive to the IST students' suggestions. In response to the report, the organization has added a media department, which will focus on the website and any other media concerns. Staff members have already started updating the information on the main website, she added.

As an IST student, Layman said, she thinks that the changes suggested by her group to DiscipleMakers "will significantly improve the usability and aesthetic appeal of the website." As DiscipleMakers' student executive committee president, she also stands to benefit personally.

"I think that modifications to (DiscipleMakers') main website can significantly increase the interest of Internet users," she said. "The more appealing the website is, the longer users will stay on it and look into more information about the organization."

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