The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization name:
Modo Labs

Organization URL:
http://www.modolabs.com/

Project Name:
Harvard Mobile

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

With a rich history in higher education, Kurogo was initially developed at MIT. Modo Labs CEO Andrew Yu recognized the need for next-generation mobile technologies one day on the MIT campus. Yu was carrying a number of different mobile devices for different purposes. He was frustrated by the fragmentation across devices, as well as the challenge of acquiring the information he needed via mobile. The frustration was shared across many campuses around the world. When building the Harvard Mobile project, Yu and his team at Modo Labs intended to make campus life easier and more productive for students and faculty. With the ability to access information on the go, Harvard students receive a richer educational experience and staff members are better able to support student needs. However, the most significant social benefit of this project lies in the fact that Kurogo is an open source offering. Through Kurogo, approximately 150 universities and enterprises have been empowered to build advanced mobile websites and native applications. Through open source code collaborations between Harvard, MIT and a vast network of universities, Kurogo continues to grow and provide ongoing benefits to everyone from student programmers to enterprise CIOs. Universities benefitting from Kurogo's open source collaborations include Algonquin College (Canada), Boston College, Brown University, Georgia State University, Harvard University, Middlebury College, Rochester Institute of Technology, St. Edward's University, Union College, University of Central Florida, University of North Carolina - Chapel Hill, University of Sunderland (UK), University of Vermont and dozens more.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

Harvard Mobile is unique among a number of solutions that aim to aggregate and mobilize content and services for higher education. Most solutions aspire to simply mobilizing data, porting it in its existing silos onto mobile devices. Harvard Mobile is unique in the degree to which it ties content from disparate sources into a cohesive user experience that's not just mobilized, but fundamentally designed for the mobile context. The custom Library module provides an excellent example of the integrative, mobile-specific innovations that pervade Harvard Mobile. Harvard has the second-largest library system in the U.S. and the largest university library system in the world, with tens of millions of holdings across 93 locations. This can make finding library items a complex, data-dense activity that is difficult to effectively enable on mobile devices. A search for the latest edition of A Theory of Justice by John Rawles, for instance, shows sixteen copies at six locations. The desktop website shows details of all sixteen copies, including bar-code numbers and due dates for checked-out copies, in a screen that takes significant time and focused attention to read. The equivalent screen in Harvard Mobile shows the six locations, distances from the user, and color-coded icons showing at a glance where the book is available for immediate use or checkout. This gives the mobile user, in a matter of seconds, the glanceable and actionable information he or she wants and needs. Kurogo is an open source platform for developing content-rich mobile websites and native apps. Derived from the highly regarded MIT Mobile Framework, Kurogo serves as Mobile-Optimized Middleware, aggregating content from a broad range of back-end sources and optimizing it for delivery to any mobile device. Kurogo is offered under the MIT open source license.

Please list the specific humanitarian benefits the project has yielded so far.

Through the Harvard Mobile project, students receive a richer educational experience. Harvard staff members are better able to support student needs. Through Kurogo, leading universities across the globe have been able to share code and advance mobile technology in leaps and bounds. Kurogo is open source under the MIT license. As such, it is intended to be used free of charge by anyone. As users develop with Kurogo, they learn about Mobile-Optimized Middleware and mobile technology. The hands-on nature of tapping into and contributing code to Kurogo's open source community facilitates the programmers' and the entire community's understanding of mobile and extends the reach of the educational experience beyond just applying existing solutions to the realm of developing new, previously impossible innovations.
6. When was this project implemented or last updated? (Please specify month and year.)

Harvard Mobile has been updated successfully numerous times over the last 16+ months. Updates have included new features and functionality and have been made pushed to the open source. The latest update to Harvard Mobile was completed in October of 2011.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

Harvard Mobile is a university-wide initiative to aggregate and deliver useful, mobile-appropriate content of daily value to the Harvard community via a multi-platform mobile website and native apps. It includes news, directory, campus map, real-time shuttle tracking, course catalog, library lookups, student dining, and more -- all carefully curated, designed and optimized for the mobile context. The best way to showcase the value of the Harvard Mobile project is by way of example. Janet leaves her room at Mather House, headed to a class at the far side of campus. She checks Harvard Mobile and sees that a shuttle will be leaving Mather in three minutes, plenty of time to

catch a ride and save a long walk. After the lecture, she has questions she'd like to discuss during her professor's office hours. In Harvard Mobile, she flips to the Courses module and taps on the class in her "My Courses" list. She taps on the professor's name to find him in the directory, and then taps the office address to locate it on the campus map. It's nearby, but her belly reminds Janet to break for lunch. She checks the Student Dining module to see what's for lunch. The nearest open dining hall is at Quincy House, so she looks up a friend who lives there and, with a tap, calls him to meet up for lunch. After lunch, the Harvard Mobile map helps her navigate to her professor's office. The professor recommends a book for further study. As she's leaving, she finds it in Harvard Mobile's Library module. A quick glance tells her there's a copy available at Lamont Library. She picks the book up, then catches the shuttle from Lamont back to Mather.