



The Computerworld Honors Program

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Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization name:
University of Southern Mississippi

Organization URL:
<http://www.usm.edu/>

Project Name:
University of Southern Mississippi Distance Learning and Collaboration Project (DLC)

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

The University of Southern Mississippi (USM) is a comprehensive doctoral and research-extensive university located in Hattiesburg, Miss., including the National Formulation Science Laboratory and teaching and research sites on the Mississippi Gulf Coast. In addition to its science and research reputation, USM is known as Mississippi's leading teacher training college, renowned for its Education and Psychology program. The economy in Mississippi has been hit hard in recent years, starting with the devastation of Hurricane Katrina, which caused massive destruction on the Gulf Coast and up past Hattiesburg. Some classes were taught in trailers, and many faculty and staff lived in trailers. The Gulf Coast was hit again with the BP oil spill, followed by floods in the Midwest that inundated the Mississippi Sound with fresh water, decimating the seafood industry. The recession and housing collapse followed. All these incidents inevitably caused faculty and staff to leave the region. Coupled with budget cuts throughout the university, many faculty and staff performed multiple jobs in many different locations. With faculty having to travel between sites, office hours available for students seeking help suffered. Staff members were traveling for meetings weekly, and in many cases, travel time exceeded the meeting times. Travel budgets were exhausted and travel between the various locations became an inefficient process, hindering those critical sessions of collaboration between staff that enable a university to grow and develop. USM noticed that after graduation, teachers were no longer interacting with the university, losing the opportunity for continued collaboration. USM felt the need to become more actively involved with the advancement of rural Mississippi K-12 school districts. USM

created the Distance Learning and Collaboration (DLC) initiative to bridge the gap between disparate USM faculty and staff members, university and teachers, and the university and surrounding K-12 districts.

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.

The core of USM's DLC initiative was a complete upgrade and refresh of its technology infrastructure. In 2010, USM upgraded its old telephony infrastructure with a new, streamlined video and audio technology system, including a converged video network and video cameras in its two central campuses. The system uses a dedicated array of interactive videoconferencing units that can be combined with existing peripherals such as laptops and document cameras at various sites, whether they are coastal research centers or K-12 school classrooms. The technology works together to deliver content to a wide variety of audiences and provides a flexible platform to share multimedia and documents into a seamless presentation. A dedicated system is a freestanding, turnkey device that most end users can operate with minimal training. USM also included a bridge and content server, which is highly cost effective, as it records, archives, and streams content for later use. This provides an economy of scale as presentations can be reused multiple times without having to pay additional fees. In 2011, USM expanded its infrastructure to integrate the coastal campuses with video endpoints as well. In total, about 40-50 camera systems have been deployed at USM, saturating the demand from both coastal and main campus faculty and staff members on all campuses.

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

In the first phase of the DLC initiative, USM succeeded in bridging the gap between disparate faculty, administration, and research campuses through the use of videoconferencing technology. Today, any faculty member on any of the campuses or coastal research sites can instantaneously connect with a peer in a high-definition virtual meeting instead of having to travel long distances to collaborate. This has enabled marked improvements in the communication and collaborative abilities of the faculty, including more frequent and impactful conversations and university/research initiatives. Stacy Tucker, an iTech Director at USM, notes that previous monthly meetings to connect with his peers at off-site locations have been replaced with weekly video meetings that achieve the same experience as face-to-face collaborations. The technology deployment has, as Tucker notes, fostered a "much stronger relationship," one that has bridged USM's main campuses and research centers while improving the speed of decision-making and reducing travel expenses. Ultimately, Tucker notes, "it's enabled us to fix barriers that came up after Katrina." Building upon the internal transformation that video capabilities enabled, the university has actively sought ways to extend the benefits of their technology to communities throughout Mississippi. Partnering with five school districts in 2011 led to a recently funded grant through the United States Department of Agriculture (USDA) Distance Learning and Telemedicine Grant. Their initiative, Rural Education for Achievement, Connections, and Health (REACH), strives to connect over 14,140 Mississippi students and teachers through video technologies. With this award, USM is now embarking on the second phase of its DLC initiative and will be connecting its videoconferencing infrastructure with newly installed interactive videoconferencing distance learning systems (endpoints) in schools in three local counties.

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.

The USM administration's active use of the technological equipment has directly benefited opportunities for students to partake in distance learning at USM. For example, two faculty members at the USM presently use their videoconferencing equipment to connect with graduate students away from campus. For example, after students finish their AB dissertations, many leave the state to pursue job opportunities. One graduate student was able to present his thesis while in the state of Washington to a USM professor. Being able to connect with the USM campus and faculty unconstrained by geographic barrier is testimony to USM leadership in the distance learning sector, and has led to increased opportunities for learning for USM students.