



The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

Status:

Laureate

Year:

2013

Organization Name:

ConnectToTech, Inc.

Organization URL:

www.ConnectToTech.org

Project Name:

ConnectToTech Online

Please select the category in which you are submitting your entry:

Philanthropy

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)

ConnectToTech, Inc. was founded in 2007 to engage Long Island, New York, students in STEM-based (Science, Technology, Engineering, Math) education and career experiences, building the pipeline of qualified STEM workers. Our services and technology solutions connect students with business, academic, community and government volunteers in both physical and online environments. Since inception, approximately 100 volunteers with 35 organizations have participated at 35 K-12 schools and universities with over 7,000 students, teachers and parents hearing the STEM message. To break through the constraints of physical location, we launched a suite of complementary technology platforms offering educational resources with an automated tool for

volunteer groups to conduct volunteer-matching with operational efficiency: (1) www.ConnectToTech.org delivers STEM tools and reference material, (2) www.Facebook.com/ConnectToTech drives social community for STEM particularly with students, (3) STEMSearch.ConnectToTech.org gives students, parents, teachers, and others visibility to programs, internships, and other local activities, (4) a password-protected area of STEMSearch.ConnectToTech.org provides program administrators with accurate matching of volunteer skills to student needs. Newsday, the leading news source for Long Island and New York City, identified www.ConnectToTech.com in their recently published "College PrepTalk" planning and resource guide as "one of the best all-around websites with fun STEM personality tests, career advice, and student projects." A significant process challenge overcome was leading volunteers from business, academia, and community organizations to generate a balanced set of requirements for both small and large organizations, and local and global audiences. Technologically, the challenge was defining the best mix of off-the-shelf and custom-developed solutions to ensure a globally scalable, reliable "Tier 3" application with centrally stored and managed strategic relational database and search design accessible by large numbers of users with quick accurate response to queries.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

Platform I web site launched in May 2010 using Joomla v1.5 content management system. It contains 150 articles and growing, is hosted by a ConnectToTech volunteer organization and has had extensions for calendars, news feeds and newsletter subscriptions added since launch. A companion newsletter is sent to ConnectToTech contacts monthly promoting the web site content. Platform II Facebook site was created in July 2010 and launched in July 2011 offering a separate venue for collaboration worldwide. It is accessible through the ConnectToTech.org web site. Platform III process automation database/logic launched in September 2012 for use by ConnectToTech volunteers, using a SQL Server database designed for big data management, data mining, and fast and efficient metrics. The use of various database technologies and associated computer programming allowed the organization to aggregate volunteer information and specific volunteer skillsets and strategically coordinate those volunteers with student, teacher, and school needs, ultimately providing the right service to the right students at the right time as a matchmaking capability between supply and demand. It houses approximately 200 volunteers, and uses a unique algorithm for matching volunteer skills with requestor service needs. Platform IV STEMSearch portal was demonstrated to the ConnectToTech community in December 2012 and launched in January 2013 for a group of approximately 30 users, with a foundation of 50 events for a ramp period of 4

months, expanding regionally from there. The intent is to offer it as a plug-in for other organizations nationwide, with their local organizations taking advantage of the content administration functions. The Tier 3 system design housing the database and application on the same platform provides true system agnostic, web-based access to system users using a combination of ASP, ASP.NET and Java programming languages throughout over 4,000 lines of computer code.

Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

All platforms are complete and launched at this time. We will begin promotion and scaling for broader public use of the STEMSearch portal through the current school year and beyond. The functionality has been designed for the needs of other groups in the state. Our intent is to walk the talk of the ConnectToTech mission by fund-raising to hire interns to document, support, market and grow the ConnectToTech.org, STEMSearch and other online platforms required to continue the growth of this organization and others like it through the online solution.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

As mentioned above, Newsday, the leading Long Island and New York City news source, recently featured the ConnectToTech web site (Platform I) in a guidebook for college preparation and called it "one of the best all-around web sites with fun STEM personality tests, career advice and student projects" (Reference pages 78 and 79: <http://edition.pagesuite-professional.co.uk/launch.aspx?eid=010a2b61-f1b9-46ef-9cd6-737021022b30>) . ConnectToTech will be a panel participant in a Newsday webinar on college financing and STEM careers on February 13, 2013. The Long Island STEM Hub, part of the Empire State STEM Learning Network, recently named ConnectToTech as its Information Technology Regional Industry Council due in part to the momentum of business and academic activities and resources available online through the ConnectToTech web site (Platform I) and the opportunity to participate in the creation and deployment of the STEMSearch portal (Platforms III and IV). The ConnectToTech online solution offers partners a simple way to direct their time, talents and funding toward student experience: a global technology company was able to quickly carry out a series of school tours by taking advantage of the toolkit posted on the site; volunteer speakers attending career days in school are able to quickly pull together the material needed via the ConnectToTech.org career information section. Other



testimonials about the organization's activities are on the site at:
<http://www.connectotech.org/component/content/article/1/26-testimonials>

Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)

The ConnectToTech suite of technology solutions may be considered a best practice of integrating physical and virtual worlds to build awareness, engagement and fulfillment of STEM activities. Combining a large unfunded volunteer organization that builds, maintains and directs the online experience, the unique logic for match-making of skills required and skills available and the multi-group design offers other organizations the ability to manage volunteers and activities in a simple way that is scalable, supportable, sustainable, audience-specific, easy to use, and adaptable to new requirements. This collaboration between business and academia and the resulting transfer of information, knowledge and methodology of the group's intent into a system design will continue to grow capabilities in our students, teachers and other organizations which may be built as a result.