

TECHBRIDGEWORLD NEWSLETTER *Fall '11*



www.TechBridgeWorld.org

Over 330 attend 5th TBW Interactive



TechBridgeWorld successfully hosted its 5th annual Interactive event on October 26, 2011. Over 330 people from the Carnegie Mellon and Pittsburgh communities attended and interacted with our team while enjoying international food and music, challenges, prizes and giveaways.



The event's theme was "TechCaFE: Making Learning Fun" and guests learned about our iSTEP, Assistive Technology and TechCaFE programs, as well as our NavPal, Education e-Village and V-Unit projects. We also featured our partner on several projects, the Western Pennsylvania School for the Deaf, at the guest table.



TechBridgeWorld would like to thank our Interactive 2011 sponsors for their generous support: Yahoo!; Carnegie Mellon's Robotics Institute, President's Office and Office of the Dean of Student Affairs, Heinz College, School of Computer Science; Google and Vivisimo. TechBridgeWorld Interactive is an annual event and if you would like to sponsor next year's event, please contact Sarah Belousov at sarahtbw@ri.cmu.edu.



To view event photos from Interactive, visit the TechBridgeWorld Facebook Page:

<http://www.facebook.com/TechBridgeWorld>.

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Happy Holidays from TBW!



2011 has been a big year for TechBridgeWorld. Best wishes and special thanks to our partners, sponsors, students, alumni, advisors, faculty, staff, volunteers, supporters and Carnegie Mellon colleagues who have committed their time and energy to make our work possible. To view our video holiday greeting, visit: <http://www.TechBridgeWorld.org/Holiday2011>.



53% to Reaching Fundraising Goal



If 100 people give \$100 each, we could raise \$10,000 to support iSTEP 2012. That's the power of grassroots! Invest in the future of TechBridgeWorld and join 100@100, our annual fundraising campaign. Our goal is to enlist at least 100 TechBridgeWorld donors giving or fundraising \$100 each by January 31, 2012. Join the power of 100@100 and consider becoming a donor and champion.

We would like to thank our donors who have helped us reach 53% of our goal so far. To make a gift and to learn more, visit: <http://www.TechBridgeWorld.org/100at100>.

NavPal Update



Significant progress has been made on the three technical components of NavPal: localization, route-planning, and interface. Researchers have successfully implemented indoor navigation using an innovative approach to accurately represent indoor spaces in high resolution and an efficient route-planning algorithm for quickly calculating a path to the user's intended destination. As part of the research effort, a prototype of NavPal's interface was developed, which includes visual, auditory and tactile feedback. The solutions were developed on the Google Android platform and the components were separately tested with visually impaired participants from the local community in an indoor location at the Carnegie Mellon Pittsburgh campus. The users provided researchers with invaluable feedback, which is being considered for further refinement of the tool.

Researchers are currently in the process of merging the interface component with the rest of the system (localization and route-planning) so that user testing of the integrated NavPal system can be conducted in the near future.



Meeting with President Cohon

On November 21, 2011, iSTEP 2011 participants **Elise Gonzales**, **Roberto Ponce Lopez**, **Meghan Nahass** and **Hanae Timoulali** presented their summer's work to Carnegie Mellon **President Jared Cohon**. In addition to their project results, students shared their personal experiences from the summer with Dr. Cohon.

Register for the iSTEP Mini Course

Carnegie Mellon students, are you interested in learning more about technology for developing communities? In Spring 2012, TechBridgeWorld is offering "iSTEP: Technology Field Research in Developing Communities." The iSTEP mini course (6 units) is offered in Pittsburgh (15-302 A3) and Doha (15-302 W3). Contact TechBridgeWorld Project Assistant **Ermine Teves** at eteves@cs.cmu.edu if you have any questions.

New V-Unit Project in Australia



Hassam Raja, an Information Technology Management masters student at the Heinz College Adelaide campus, is conducting a V-Unit project entitled, "Using Crowdsourcing for Better Governance in Agricultural Supply Chain." Advised by Heinz professor **Murlikrishna**

Viswanathan, Hassam will measure the effectiveness of a system that leverages crowdsourcing to facilitate information flow to all participants in the agricultural supply chain. For more information on the V-Unit, visit: <http://www.cs.cmu.edu/~vunit>

iSTEP 2012 Projects



We are currently finalizing the iSTEP 2012 team who will be working with Ashesi University College on projects in Ghana. We thank all of the students who applied this year. This summer's team will be working on environmental sustainability projects:

(1) water monitoring and management and (2) waste monitoring. Check the iSTEP website for updates and more information: <http://www.TechBridgeWorld.org/istep>.

Alumni Corner

Anthony Velázquez graduated from Carnegie Mellon University in Pittsburgh in 2010 with a bachelor's degree in Computer Science. During his time at the university, Anthony contributed to TechBridgeWorld by participating in iSTEP 2009 in Tanzania and iSTEP 2010 in Bangladesh.



During iSTEP 2009, Anthony fulfilled his role as a technical floater remotely from Pittsburgh, performing technical development across the projects. He assisted with the graphics for the literacy tools, assisted with the development of the database for receiving SMS messages from social workers in the field, and helped to write the music maker game for the Braille Writing Tutor (BWT).

After his experience with iSTEP 2009, Anthony participated in iSTEP 2010, this time on the ground as a technical lead at the Asian University for Women (AUW) in Bangladesh. With a team of interns from AUW, Anthony helped translate the BWT to Bangla and with it, the ability to handle new sentence structures. To Anthony, the iSTEP internship "allows participants to see how the end user interacts with their work. Experiencing this completely changes the purpose of your work, to know whom you are developing for and it helps you to understand why your work is valuable."

After his experiences with TechBridgeWorld and seeing the effect that wireless technology can have in ICTD, Anthony sought a career in the wireless technology industry. He is currently working with Qualcomm in San Diego, California where he serves as a software engineer for the Modem RFA Software department.

Along with other students and alumni, Anthony showed his support for TechBridgeWorld by contributing to our annual 100@100 fundraising campaign. Join the Power of 100@100 and give today!

Thank you for your continued interest in TechBridgeWorld projects!

If you would like to learn more about any of our activities or be added to one of our e-mail lists, please contact us.

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