
Formando Un Puente brings undergraduates from Penn Engineering and K-12 students from the School District of Philadelphia together to address issues of access to technology in low income urban communities in the United States and other countries. This year, Formando Un Puente will "connect" the elementary students of University City New School in West Philadelphia and the Escuela Fiscal Zoila Ugarte de Landivar, in Quito, Ecuador. In addition, Penn Engineering undergraduates and students from North Philadelphia's Gratz and Edison Fareira High Schools will also be “connected” together with these two groups of elementary school students.

The collaboration will take place through two existing community outreach programs – The Penn Science and Technology Outreach Program (PennSTEP) and The Urban Technology Project (UrbanTech.) PennSTEP sends engineering students into Philadelphia communities to engage in technology-based service learning opportunities. UrbanTech is dedicated to providing North Philadelphia high school students with meaningful hands-on experience with computers while addressing issues of access to technology.

Formando un Puente will operate under the joint leadership of Edison Freire, a Corporation for National Service Learn and Serve Master Teacher and Director of UrbanTech in Philadelphia, and Joseph Sun, Penn Engineering’s Director of Academic Affairs. Volunteers from PennSTEP and UrbanTech, as well as students and teachers from University City New School (UCNS) plan to work together on this project in a variety of settings:

At University City New School (UCNS) - UrbanTech and PennSTEP students, together with UCNS staff and parents, are developing a plan to network all computers and provide Internet access at all workstations.

At UrbanTech - UrbanTech and PennSTEP students will work together to assemble all of the computers from new parts for the computer lab in Ecuador, and then prepare them for shipment. Students are also developing a basic bilingual maintenance manual to be used at both the UCNS and Ecuador computer labs.

At University of Pennsylvania - PennSTEP students are developing a plan for networking the UCNS computer lab. Once this plan is successfully implemented in Philadelphia, students will design a computer lab to be installed in Ecuador.

At Quito, Ecuador - A lab composed of computers assembled by UrbanTech will be installed by PennSTEP and UrbanTech students in the Escuela Fiscal Zoila Ugarte de Landivar, a public elementary school. The Philadelphia students will connect the lab to the Internet, and train local teachers and students to use and maintain the computers.

Formando Un Puente's experiences will be documented with the view toward replicating this project in other areas of the U.S. and the world.

In order to make this innovative partnership a success, and to raise awareness of the digital gap among the general public, Formando Un Puente is currently accepting donations towards the purchase of computer parts, networking tools for both the UCNS and Ecuador computer labs, as well as for transportation expenses to Ecuador of the Puente team. Please contact Oufreez Argenta at (215) 898 – 7246, or via email at oargenta@seas.upenn.edu for more information.
The Digital Gap

As we have seen technological developments explode in the last decade, we are now faced with issues of access to technology and the ever-widening digital gap faced in this country as well as around the world. The gap will continue to grow into the next century as the rate of technology development continues to soar. While the need to be connected to the digital world becomes increasingly crucial in our daily lives, the ability to keep up with the changing world is becoming less feasible for those who lack adequate resources. Bridging the technology gap before it grows out of reach for a good majority of the population has been identified as a critical issue facing us in the 21st century.

Formando un Puente (Building a Bridge)

Through a unique partnership, The University of Pennsylvania School of Engineering and Applied Science and the Urban Technology Project (UrbanTech), a School District of Philadelphia Service Learning initiative, have developed a program that promotes technology-based outreach efforts to connect students both locally and globally while bridging the digital gap.

The founders of Formando un Puente realize the need to manage this widening disparity before it becomes insurmountable for individuals in the U.S. and abroad. By taking action now, the Puente volunteers hope to make a difference by:

- introducing new technology
- providing internet access
- training students and teachers
- empowering students with the technology

Leadership for the project comes from all project participants. From installing hardware and software to contacting vendors and planning, university and high school student volunteers take the lead.

The partnership will involve undergraduates from Penn Engineering and K-12 students from the School District of Philadelphia, and will address issues of access to technology in low income urban communities in the United States and other countries within the framework of service learning projects.

Through PennSTEP, Penn Engineering’s technology-based student community service organization, students from Penn will work with students from the Urban Technology Project (UrbanTech) to develop and implement mentorships and other programs to increase access to technology through cooperative service learning experiences. PennSTEP has already helped make a difference in the West Philadelphia community through technology outreach efforts in Philadelphia schools and other nonprofit organizations.

UrbanTech, under the direction of Learn and Serve Bilingual Master Teacher Edison Freire, is dedicated to providing North Philadelphia youth with opportunities for meaningful hands-on access to technology.

Developing a New Paradigm

A currently active and successful pen-pal program exists between elementary school students at the University City New School (UCNS) in West Philadelphia and their counterparts in Escuela Fiscal Zoila Ugarte de Landivar in Quito, Ecuador. Through this program, we hope to expand this program to include Penn Engineering undergraduates and UrbanTech students, using Internet communications to facilitate this and other cross-cultural relationships.

PennSTEP and UrbanTech students will work together to:

- Engage in research of appropriate technology planning and exchange for University City New School, an independent school in Philadelphia
- Develop and implement a plan for networking the local school’s computer lab
- Design a computer lab to be installed in Escuela Fiscal Zoila Ugarte de Landivar – a public elementary school in Quito
- Create a computer training curriculum for K-16 students and teachers in Quito
- Send a travel team to Quito to implement the plans they have devised
- Create mechanisms for documenting and replicating this project in other areas

North Philadelphia high school volunteers refurbish computers to provide appropriate technology to students in Ecuador, and also teach the students how to maintain the equipment.

“Volunteers from Philadelphia and Quito are working together to bridge the digital gap in order to create a truly global community.”

Hands-on technical experience demystifies technology for students of all ages.

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A Unique Service Learning Opportunity

- Engages kindergarten through college students in a cultural exchange
- Allows all project participants to assume the roles of both teacher and learner
- Encourages global neighbors to adopt the service learning paradigm
- Enables future international collaborations

* Formando Un Puente seeks to equip third world elementary students with tools and knowledge they will need to be successful in the 21st Century.

Formando un Puente student volunteers will be responsible for all of the necessary planning, purchasing of equipment and parts, and assembly of machines for both elementary school sites. They will also design a basic bilingual manual to be used by students in Philadelphia and Quito in the maintenance of their respective computer labs. Not surprisingly, the Puente Project requires tremendous resources. For more information on how you can help please refer to the contact information on the back.

FOR ADDITIONAL INFORMATION

visit
http://www.seas.upenn.edu/~pennstep/puente

email
pennstep@seas.upenn.edu

voice mail
(215) 898-6423
mailbox #: 17246