Communities advance when computers speak their language

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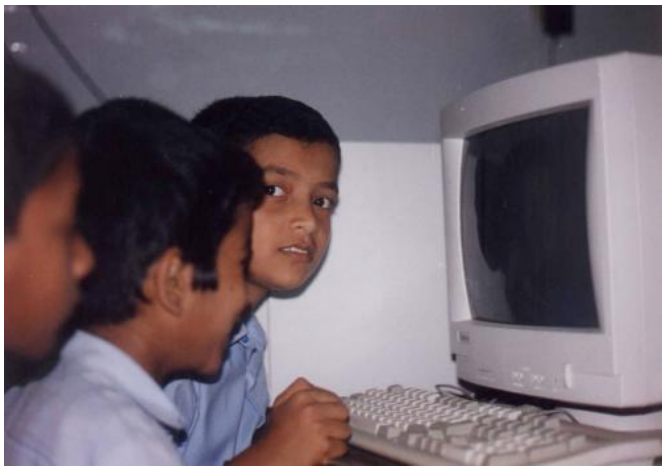

Kids learning computers at school. Credit: Frederick "FN" Noronha/C C

Citizens in remote rural areas in 11 Asian countries are leaping over language barriers and into the Internet age. They may now access government services online, and submit college applications without making an arduous trek to the city. And their children are learning the computer skills that promise greater economic opportunities in the future.

This is just a sampling of the Internet-era benefits available to millions more people across Asia thanks to the work of the PAN Localization program. This IDRC-supported network of computer experts (known as PANL10n) has been working since 2003 to develop new technologies that allow computers to function in local languages.

Asia's relatively low Internet use does not reflect a lack of public enthusiasm, says project coordinator Sarmad Hussain, a professor at Pakistan's University of Engineering and Technology, Lahore. When online demonstrations have been set up in rural communities, the use of computers "is a very easy sell. People are excited that this technology can give them access to many things they don't have access to right now," Hussain says.

Local scripts

A major obstacle to Internet use—until now, at least—has been language. With 3,500 local languages in the Asia-Pacific region, and fewer than 10% of people able to communicate in English, Internet use is typically restricted to urban areas.

Focusing on the way language hinders online access was a strategic approach that has allowed the PAN Localization initiative to "tackle the digital divide in Asia at its root," says former IDRC program officer Maria Ng. The network has assembled a pool of highly skilled software engineers, linguists, and sociologists. They work together to overcome the formidable technical obstacles to making local scripts compatible with computers, and to promote their use.

"Each language has its own problems and therefore requires a unique solution," Hussain explains. "That's the real challenge."

Citizens connect

The results can now be seen both in small communities and at the level of public policy. In rural Nepal, locally adapted software enables people to Skype with family members who have left to work elsewhere. In rural Cambodia, computer software applications that list market prices for agricultural goods or that bring news from nearby communities have proven popular.

Government initiatives also promise to spread the benefits of computer technology. Bhutan, for example, has launched an e-government program allowing distant citizens to complete official forms

online in the Dzongkha language.

Hussain adds that local-language computing capabilities have spurred a movement in Pakistan to introduce computer training at an early age, when students are taught in their own language. (At older ages, instruction is in English.) He sees a social benefit in this early introduction, given that greater comfort with computers improves economic prospects and encourages innovation.

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