

## Computers for the Third World

One of the dreams of Wycliffe is that national coworkers in the field could take on the task of language development and Bible Translation for themselves. One major technical hurdle has been the inappropriateness of modern laptop computers in very remote settings where there is no power. Even if laptops can be deployed, they are typically way beyond the financial means of villagers to acquire and worse, there is often no power available in the village, including batteries or fuel for generators.

So in Papua New Guinea we have been studying a host of technologies termed “Low Power Computers” that may not have all the computational power of conventional laptops, but still would be useful enough for language data entry purposes, and would be rugged enough to survive in the wild. These devices must be able to run for hours on normal replaceable batteries, or simple rechargeable batteries based upon very small solar panels.

But recently the technical trade journals have been “abuzz” with the news of the “One Laptop Per Child” (OLPC) project proposed at the *World Summit on the Information Society*, (WSIS) in Tunisia, November 2005. Here, Professor Nicholas Negroponte along with the United Nations introduced a proposal for a US\$100 laptop for the third world and for children’s education purposes. Prof. Negroponte had visited Cambodia and impoverished children there and wanted to create a system that would reduce the so called “digital divide” between the developed nations and the third world nations. Since November, he has received significant financial backing by noteworthy companies like Google, AMD, AOL, and Red Hat (famous for Linux software). He plans that all available software will be Open Source and therefore “free” to be used by all in the developing world. There will be no software royalties involved.



SIL (partner to Wycliffe Int’l) had our representatives at the Tunisia conference. And at least seven national governments are planning to participate. These countries include China, India, Brazil, Argentina, Egypt, Nigeria, Thailand and hopefully others. These governments are effectively purchasing up to 15 million OLPC laptops by the end of 2006, and the company Quanta has signed a contract to produce these (if you purchase Dell and HP laptops—you know Quanta, without realizing you know them). But unlike any laptop to date, the OLPC “green machine” will consume 1 watt of power, and has a built-in hand crank generator for times when there is NO POWER available. A ten-minute crank is projected to allow one-hour of use.

So here in PNG, Tim Jore and I have started a world-wide software development project called “Language Tools for Low Power Computers” and we plan to analyze the needs of national coworkers in the task of language development and translation. These requirements are very different than what an expatriate worker needs in a third-world setting. A major concern is **making the software culturally understood and far easier to learn to use.** Then, armed with this information, we have launched an ambitious two year program to create the appropriate software in the Linux environment for such workers. I plan to announce this initiative at our next SIL Computing Technical Advisory Group meeting, this March, held in Dallas, Texas.

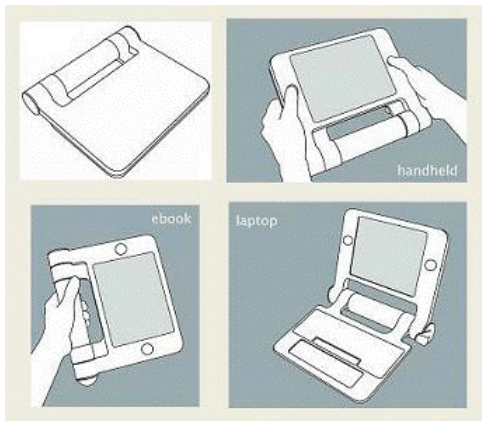
My apologies to those of you who are not very technical, but just realize that high technology has direct application in the Bible Translation task and we are constantly looking for Christian technologists to volunteer and to help out.



Prof. Negroponte and Kofi Annan unveil the OLPC at Tunisia, last November.



The Green Machine as eBook reader. A built-in “Mesh Network” wireless LAN system will be able to share Internet services and connect all nearby school notebooks together.



Yes, “geeks” too can be missionaries!

If the United Nations’ and the MIT Labs’ dream comes true by the end of 2006, then we would like SIL/ Wycliffe to be able to harness these machines in third world settings, and speed the work of Bible Translation in yet another way—by better engagement of the local churches within the countries we serve. This is a monumental task, full of technical challenges, but we trust the Lord is leading and will provide the answers we seek. The machines are coming—but will our software tools be ready? Could these tools be an answer to our Corporate Vision of a translation start in every remaining language in the world, by the year 2025? That would be over 2000 languages yet to go.

To the technologists reading this letter... if you want to get involved in this Open Source project, drop me a line and by all means recruit others to get involved.

Joyfully in His Service,

A handwritten signature in cursive script that reads "Brian C." with a small flourish at the end.

**Technical News Flash:** SIL’s Open Source “Graphite” program has been accepted for inclusion by the developer of Ubuntu Linux. This means that the Linux community will soon have a suitable engine to render all the minority languages of the world correctly on a computer. This is no small task, and eclipses abilities in Windows and Mac OS.

February, 2006      [www.chapaitis.org](http://www.chapaitis.org)      Email Address: [b.chapaitis@sil.org.pg](mailto:b.chapaitis@sil.org.pg); [h.chapaitis@sil.org.pg](mailto:h.chapaitis@sil.org.pg)

---

SIL Box 188, Ukarumpa, E.H.P. 444, PAPUA NEW GUINEA      Tel: 011 675-737-4352  
Wycliffe Bible Translators, P.O. Box 628200 Orlando, Florida 32862-8200, USA      Tel: 1 407-852-3600

---