

Running a Windows-based computing platform may be too costly for Liberia- It is time to start using Open Source Software.

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When I wrote the initial technology implementation plan for B. W. Harris School in November of 2008, a colleague of mine who is also an IT professional residing in Liberia was quick to discourage me from including a Linux server for the school's Intranet. The Linux server was to be used to run Apache, a Web server software developed by the Open Source Community. My colleague claimed that, "there may be very few IT professionals in Liberia with knowledge of the Linux operating system", which is also an Open Source Community product developed by Linus Torvolds of Finland. I had to disagree with him because I could not imagine why Liberia, a country struggling to bridge the digital divide would not be taking advantage of free and open source software when other African countries have already done so. But subsequently and unfortunately, though, during my stay in Liberia I discovered that my colleague's remarks were indeed true; that most of the computers in Liberia run the Windows operating system. So I asked myself: How can Liberians afford a Windows platform at a time when the country's poverty rate is as high as 85% or even higher? Will Liberia ever bridge the proverbial digital divide, if it relies solely on proprietary software? Will Liberia ever be a nation of information technology (IT) innovation? The answer to the last two questions is a resounding YES! But only if Liberians embrace and engage in the use of open source software will they succeed in bridging the digital chasm and become a nation of innovation. In the following paragraphs, I discuss open source software, how it has impacted countries in Africa, and why Liberia should get involved with it.

In Liberia, Microsoft Windows and Microsoft Office are the de facto standards for personal, educational and business computing software. These products are costly even to large corporations in a country like the United States of America, so they must be a financial albatross for a country like Liberia especially when subsuming Total Cost of Ownership (TCL). While I am not an economist and I do not aspire to be one, I believe that if Liberia continues to limit itself to the use of proprietary software like Microsoft Windows and Microsoft Office, it will not experience the benefits that information technology can bring to the economic recovery process. Bridging the proverbial "digital divide" is, in my opinion, a task that Liberia can accomplish only if it turns to free and open source software.

Free and open source software is software that is freely licensed to users to study, change, and improve its design through the availability of its source code. FOSS as it is referred to, has gained momentum over the years in developed, developing, and underdeveloped countries. Its models have resulted in savings of about \$60 billion per year to consumers around the world. The Linux operating system which competes with Microsoft Windows and runs majority of the servers on the Internet is a product of the Open Source

community. Several products from the Open Source community including OpenOffice, Mozilla Firefox, and Ubuntu Linux have made their way to corporate IT infrastructures. In fact Ubuntu Linux, the most popular distribution of Linux is now claiming 30% of desktop installations around the world and is being shipped on computers manufactured by well-known computer makers and vendors including Dell Computers.

In Africa, the Free Software and Open Source Foundation for Africa (FOSSFA) was launched on 21 February 2003 in Geneva, Switzerland. This organization has advocated the use of open source software in several African countries including South Africa, Tanzania, Uganda, Kenya, Egypt, Ghana, Benin, and Mali. Today, open source software has become so popular in African countries to the extent that some of those countries are developing software in their native languages. In East Africa where Swahili is spoken by an estimated 100 million people, a software known as Jambo OpenOffice has been developed. This software which is translated in Swahili has functionalities parallel those of Microsoft Office and is available for free. Other countries in Africa are making tremendous strides while Liberia continues to lag behind this initiative. Below, I list a few open source solutions for the health sector in Africa:

- OpenMRS, a community-developed medical records system
- Baobab - Open source hardware and software for clinics
- IntraHealth's iHRIS human resource information system
- OpenELIS laboratory/diagnostics information system
- OpenROSA mobile data-collection toolset

All of the above mentioned software solutions are product of open source initiatives in Africa.

The government of Liberia whose information technology (IT) platform is Windows-based needs to start exploring open source software to minimize its information technology (IT) spending. Many African countries including South Africa, Tanzania, Uganda, Kenya, Egypt, Ghana, Benin, and Mali, have engaged in the use of open source software as a resource toward their developmental initiatives. This is because of the recurring, and often costly, licensing and upgrading fees of proprietary software such as Microsoft Windows and Microsoft Office productivity suite. Open source systems, based on licenses that ensure users' freedom, are usually available free of charge and require no recurring fees. Using open source software can save the Liberia government much needed money that could be used in other areas in order to help bridge the digital gap between Liberia and the global community.

When introduced and propagated in the Liberian society, open source software will guarantee Liberians the opportunity to develop local programs built by Liberians for use in Liberia and perhaps on other parts of the continent. The time has come for the Liberian government to begin initiatives that will introduce open source into schools, where young people can gain a fundamental knowledge of open source, learn to use, maintain, modify and improve computer software. Both government and the private sector must advocate the use of open source software and seek international help, if there is a shortage of local

experts in adapting and developing much needed applications and infrastructures for Liberia.

Liberia is at a pivotal point in its recovery efforts. Efforts to rebuild the country must include a shift in paradigm in order to meet the demands of the 21st century. Schools must be built to meet the demands of the 21st century. If Liberia's children are to be educated, they must be provided with an education that will prepare them for the 21st century. This requires the use of technology which may be too costly for the country, hence the need for free and open source software. Free and open source software must be injected in Liberia so that Liberians can use their sense of innovation through information technology to bring economic development to their country. Any argument that brings forth cynicism in this regard will be just another reason to remain with the status quo or the traditional way of doing things. If Liberians will improve their country they must invest in information technology because it is a significant driver in the global economy, a part of which Liberia must be if its citizens are expected to enjoy economic prosperity.