

# Information Technology and Development

Connecting Ethiopia to the Internet Age by

Free and Open Source Software

a presentation by Jan Muehlig and Jutta Horstmann

The Linux operating system, as well as other so called “Open Source” software applications, assures that all users may copy and/or modify the software, and that the source code, the nuts and bolts of the software, are publicly available. This, in turn, means that people can legally acquire a copy of the software for free, copy it themselves or install it on multiple machines and make changes to either suit their needs or fix bugs.

As opposed to proprietary software, the code of open-source software and operating systems is generally available and can be modified and enriched by practically any user. The open-source movement has been growing over time, the number of people using and contributing to the movement has increased to a significant level, and a expanding number of enterprises and administrations are implementing the software and operating system.

While the initial interest in open source to developing countries may stem from its lower cost, they also should be aware of the longer term benefit of increased choice to consumers, as the emergence of open source creates more information technology options.

Working with open source is empowering. It builds skills, is more affordable than private commercial software packages and programs, and it encourages innovation at the local level.

The main advantages of Open Source Software for developing countries:

## **Low Cost:**

Open Source Software saves financial means because it can extend the lifespan of computer hardware without compromising on functionality. Even complex applications do not rely on expensive modern hardware, but are able to run on 5 - 10 year old computers.

Besides hardware, also no financial investments are necessary for providing and developing software, as most Open Source Software is available for free. This is true not only for the running application, but also for the underlying source code, which can be modified, adapted and enhanced by everybody capable of programming.

Last but not least, Open Source Software reduces costs arising from software licenses. It comes under the GNU Public License (GPL, <http://www.gnu.org/copyleft/gpl.html>), which imposes no fee to the licensee, as proprietary licenses do.

## **Adaptability to personal/cultural needs, localization, translation:**

Most computer users in Ethiopia today know English, and their machines use this language. However, if basic software were available in local languages (e.g. amharic) more people would be given the chance to use computers even without English language skills. Open Source Software can easily be adapted to address localization and translation issues.

## **Autonomy:**

The very nature of Open Source lends itself to providing an information technology environment premised on local autonomy and ownership, while introducing more flexibility and independence to the software development process.

It brings a significant change in the technological relationship between the North and the South as it reduces dependency on technical expertise from North.

Thus it should be possible to bridge the digital gap by building local competence, to empower local organisations and stakeholders to make effective use of technologies on their own terms and plant the seed for an autonomous community.

## Internet Resources:

Amharic Localization Project by Mr. Daniel Yacob:

<http://www.geez.org>  
<http://gnome.geez.org>

Free Software and Open Source Foundation for Africa

<http://www.fossfa.net/>  
<http://osfa.allafrica.com/>

Africa ICT Policy Monitor

<http://africa.rights.apc.org/?-1-%27Open+Source%27>

SchoolNet Namibia

<http://www.schoolnet.na/>

Women of Uganda Network

<http://www.wougnet.org/>

Open Source Initiatives in Uganda

<http://www.wougnet.org/ICTpolicy/ug/fosiug.html>

Translation Project Luganda

[http://www.kizito.uklinux.net/en\\_index.html](http://www.kizito.uklinux.net/en_index.html)

Open source to leapfrog the digital divide in Tanzania

[http://www.developmentgateway.org/node/285491/news/item?item\\_id=761336](http://www.developmentgateway.org/node/285491/news/item?item_id=761336)

Victor van Rijswoud (Uganda Martyrs University): Open Source Software - The Alternative for Africa

<http://www.wougnet.org/ICTpolicy/docs/oss+in+africa.pdf>

Linux spreading rapidly in Latin America

<http://www.itworld.com/Comp/2362/LWD010424latinlinux/>

Guyana Linux Users Group: Open source, Linux and their importance for developing countries: a very brief introduction

<http://www.sdn.org.gy/whyopen.html>

Red Flag Linux (China)

<http://www.redflag-linux.com/eindex.html>

Brazil's Telecenters (Sao Paulo)

<http://www.telecentros.sp.gov.br/english/index.php>

The Simputer Project (India)

<http://www.simputer.org/>

Mandrake (French Distribution)

<http://www.mandrakesoft.com/>

Downloads: <http://www.mandrakelinux.com/en-us/ftp.php3>

SuSE (German Distribution)

<http://www.suse.com>

Downloads: <http://www.suse.com/us/private/download/index.html>

Red Hat (US Distribution)

<http://www.redhat.com>

Debian (Non-Commercial Distribution)

<http://www.debian.org>

Downloads: <http://www.debian.org/releases/stable/>

Desktop Environments:

<http://www.kde.org>

<http://www.gnome.org>

The GNU Initiative (GNU Public License and Free Software Foundation)

<http://www.gnu.org/>

<http://www.gnu.org/licenses/gpl.html>

<http://www.gnu.org/philosophy/free-sw.html>

Open Source Definition

<http://www.opensource.org/>

<http://www.opensource.org/docs/definition.php>

Further Information, Manuals and HowTos

<http://en.wikipedia.org/wiki/Linux>

<http://wiki.linuxquestions.org/>

The Linux Documentation Project (TLDP)

<http://www.tldp.org/>

<http://www.tldp.org/FAQ/Linux-FAQ/index.html>

<http://www.tldp.org/HOWTO/HOWTO-INDEX/index.html>