

Linux install Party

Elsa Guillot, Pablo Hernandez

IFS, Massey University

19/10/14

Outline

- 1 Linux Install Party
 - An OS story
 - Linux
- 2 Open Source
- 3 Zotero
- 4 Github




Welcome!

- Internet **MUevents**, password **Op3nSourc3**
- Tea offered by FUSSTA
- BBQ tonight 85 Campbell Street, offered by MESA
- You will each receive a Linux Mint Install CD

OS and Russian dolls

- Operating System: Windows XP, Mac, Linux Ubuntu, DOS
- Most computer run under a unique OS
- Dual boot: you chose at the start which OS you run
- Virtual Machine: an OS within an other OS

OS

Windows	Mac (OsX)	Linux
		
Expensive	Expensive	Free (or not)
Close system/black box		Open source
Limited control (data/system)		Full control
Viruses	more secure	
Microsoft Office	Microsoft Office	LibreOffice
few distro	few distro	many distro
Hard to break		Easy to break
Hard to fix		Easy to fix
Professional support		Community support
-	clear separation on administrative task	

Dual Boot VS Virtual Machine

Virtual Box

- Easy to install / re-install
- Safe for you data and your system
- Good to test/ play around different OS
- Require a big machine to run a smooth VB
- You are still running windows underneath
- Temporary solution

Dual Boot

- Once install run Windows / Linux independently
- Harder to install
- High risk of data/system loss
- Smoother to run
- Can boost up your old computer
- Long term solution

Linux-GNU

- Linux is a UNIX-like system
- Created by Linux Torvalds in 1991
- The GNU project was created by Richard Stallman in 1993
- Linux is developed independently by many entities, creating many distribution
- They all share core concept



Distributions

- To switch from one distribution to another you must re-install the whole system
- They look different and have different applications already installed
- Distributions target different uses
- **Ubuntu** is the most user-friendly and popular
- **Mint** is a user-friendly distro growing very fast
- **Fedora** is popular among scientist and programmers
- **RedHat** is a commercial distribution of Linux (sold to companies and come with support)
- Some distribution are only for professional IT administrators
- **You can give a try to different distribution with live CDs**



ubuntu



lubuntu



kubuntu



linux mint



debian



fedora



red hat



centos



arch linux



openSUSE

Linux Mint



- We will install Mint
- Very popular at the moment
- Good support community on the internet
- Easy to use
- Easy transition from other OS to Mint
- It looks a little like Windows

Linux 101 (Mint)

- It has already most software install
- Firefox, vlc
- No Word, but Libre Office instead
- Navigate as you would with Windows / Mac
- Its Desktop Environment is called **Cinnamon**

Linux Desktop Environment

- The DE is your interface with the Linux system
- The way things look, the shortcuts you have, how you launch programs
- You can install an other DE **without** reinstalling the system
- Example of other DE: Gnome, Unity, KDE
- DE are more or less dependent on Distributions

Linux 101 (Mint)

- Start application via the menu
- Or launch any program with `Alt+F2` and enter the name of the program
- Switch between windows with `Alt+Tab`
- You have several Workspaces
- Console interface : `ctrl+Alt+T`

Linux 101 (Mint) - console

command	action
<code>ls</code>	shows where you are
<code>cd <i>directory</i></code>	change directory, i.e. move
<code>cp <i>oldfile newfile</i></code>	copy (file)
<code>cp -r <i>olddirectory newdirectory</i></code>	copy directory
<code>mkdir</code>	make directory
<code>less <i>file</i></code>	show content of file
<code>wget <i>url</i></code>	download internet page
<code>ls</code>	list the files in the current directory
<code><i>programname</i></code>	launch the program

What is open Source

- All programs are released under a license, which allows different access and use of the program
- A program is open source if it is possible to access its code source, i.e. the recipe of how it works to anyone
- Open source does not mean free (depending on definition)
- Open source program should be modifiable by anyone
- GNU Linux is an open source project
- We will focus on project being free and open source, as promoted by the open source initiative
- The definition of open source by the OSI can be found here opensource.org/docs/osd

Why should a program be open source

- Allows a better usage
- Better control of what the program is doing
- Permits continuous improvement
- Easier to fix if it does not work
- Less dependent on a single entity for support
- Like science, IT builds up on previous work to make bigger things

Open source examples

- LibreOffice (alternative to Microsoft Office suit)
- Mozilla Firefox
- Mozilla Thunderbird (email interface)
- Android
- GNU Octave (alternative to Matlab)
- Git
- Zotero

Zotero

- Zotero is a **free open source** alternative to EndNotes and Mendeley
- Getting more and more popular
- Easy to use
- Easy to install
- **Synchronize** you library on different computers
- Plugin to your web-browser
- Compatible with latex
- Intergration with Word, OpenOffice, LibreOffice

Git

- Versioning software
- Alternative to svn
- Saves you work, along with old versions
- Enable several people working on the same project
- Decentralize the copies of your project

Github

