

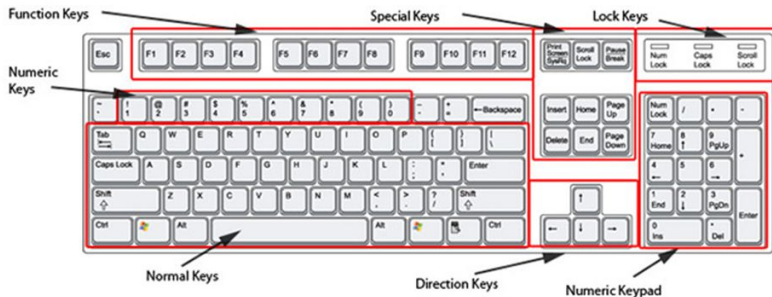
To Linux or not.

Elegance/ Beauty/ Ingenuity.

finger/talk Vs. poke

How to move up/down?

QWERTY Diagram





MAC

Arguably cute, though essentially useless. It does cute tricks that anyone else could do anyway.

Will live for years and rarely become ill but a small malady can knock it out. Cannot withstand rough play



PC

Strong and fast and capable of almost everything. Will obey all orders and requires minimal if any training. May occasionally get sick but its usually curable and usually your fault. It will eat your face if you don't treat it correctly. Guides to all aspects of care can be found almost anywhere.

TrollingZone.com



LINUX

Outright dangerous unless very well trained, but can grow into the most reliable companion imaginable.

Unstoppable by any force if well cared for. Few people have the ability to take care of it, so don't expect any help.

AN UPDATE IS AVAILABLE FOR YOUR COMPUTER

COOL, MORE
FREE STUFF!



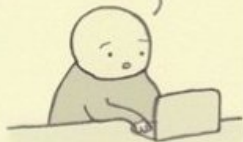
linux

NOT AGAIN!



windows

OOH, ONLY
\$99!



mac

History

- ▶ Linus Torvalds wanted a small Unix for his PC.
- ▶ He built Linux Kernel
- ▶ Kernel is what makes the OS!
 - ▶ Red Hat Linux
 - ▶ Debian
 - ▶ Ubuntu (Lubuntu/Xubuntu/Kubuntu/Mythbuntu)
 - ▶ Archlinux

Who is running Linux?

- ▶ All supercomputers (Obvious!)
- ▶ All routers / network servers (Glaringly obvious!)
- ▶ But very small number of PC/laptops (Why?)

Use cases

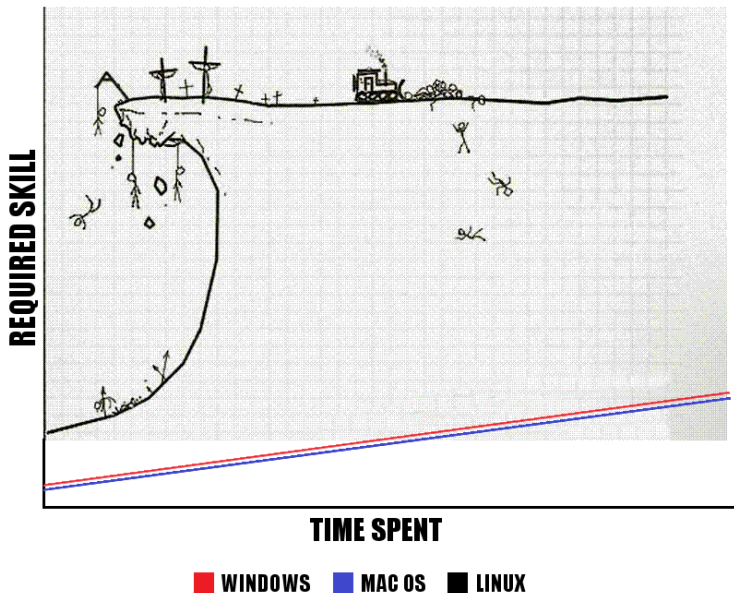
- ▶ Admin/root Vs. Personal
- ▶ Power Vs. Lay
- ▶ Computing: Scientific Vs. (search-download-modify-run-repeat)

Gaming is not valid use of a PC/Laptop !!!

Are there things that Windows/OSX can't do?

- ▶ May be. But very few.
- ▶ Linux does them **efficiently**
- ▶ Linux is infinitely customizable

OS LEARNING CURVE



Learning Curve

- ▶ You choose what to learn *or* not
- ▶ Knowledge once gained is extendable with changing user requirements/sophistication
- ▶ For example, for presentations
 - ▶ Start with libreoffice. . .
 - ▶ Move to pandoc/markdown. . .
 - ▶ Latex beamer class. . .
 - ▶ or simply use sent.

Looking under the hood

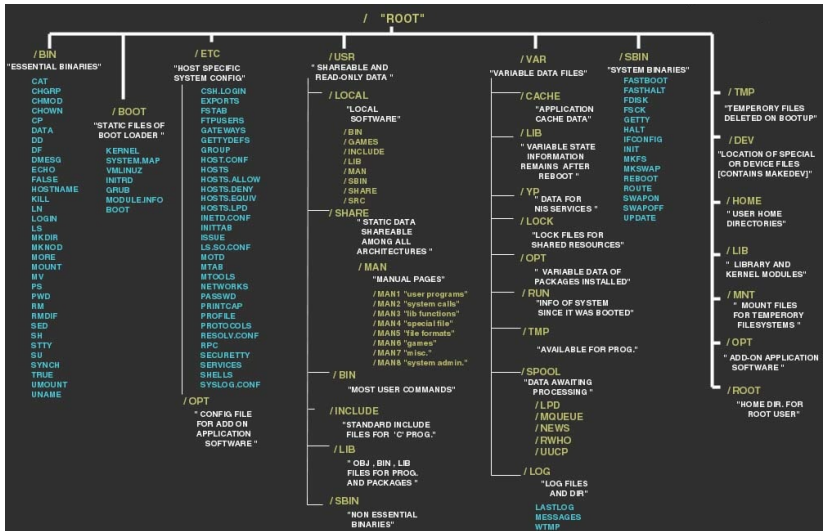


Figure 2: Linux file hierarchy

Customisation

- ▶ Windows: Periodically changing the wallpaper.
- ▶ Linux: Run what/when/how you want.

Linux Run Levels

Run Level	Mode	Action
0	Halt	Shuts down system
1	Single-User Mode	Does not configure network interfaces, start daemons, or allow non-root logins
2	Multi-User Mode	Does not configure network interfaces or start daemons.
3	Multi-User Mode with Networking	Starts the system normally.
4	Undefined	Not used/User-definable
5	X11	As runlevel 3 + display manager(X)
6	Reboot	Reboots the system

Figure 3: Linux Run Levels

Desktop Environments

- ▶ Bundle of a set of software packages along with a window manager
- ▶ Packages are selected with a fixed criteria in mind
 - ▶ Simplicity
 - ▶ Style
 - ▶ User friendly for new users
 - ▶ Application area (Computing)
- ▶ Examples
 - ▶ GNOME
 - ▶ LXDE
 - ▶ Xfce

Window managers

- ▶ Stacking
 - ▶ Compiz (Ubuntu)
 - ▶ Fluxbox
 - ▶ Fvwm
- ▶ Tiling
- ▶ Dynamic
 - ▶ Dwm (C)
 - ▶ i3
 - ▶ Awesome
 - ▶ Xmonad (Haskell based)

Configuration files

Static information about the filesystems.

See fstab(5) for details.

<file system> <dir> <type> <options> <dump> <pass>

/dev/sda5

UUID=aeb0e207-cb1a-4e95-8210-cbe85403d092 /

ext4 rw,relatime 0 1

/dev/sda6

UUID=033f56fb-0f2b-4f04-b7f4-32b773af0e77 /home

ext4 rw,relatime 0 2

Shell scripts

```
function ddaudiobooktomp3 { #{{{
    mkdir -p mp3s
    SAVEIFS=$IFS
    IFS=$(echo -en "\n\b")
    for i in `find . -type f
        -iname "*.m4[ab]" -print`; do
        echo $i
        NAME=`echo $i | sed -e 's/\.\.\/' -e 's/\.m4b//g' `
        echo "converting '$NAME'"
        faad --stdio $i | lame --preset standard
            - "mp3s/${NAME}.mp3"
    done
    IFS=$SAVEIFS
    return 0;
}
```

zshrc

- ▶ Appearance/default programs/prompt completion
- ▶ zsh profiles with all relevant configuration files are available on [github](#)

Automation

- ▶ Scale
 - ▶ Copying one file as opposed to 100
 - ▶ Performing a set of tasks on one file as opposed to 100
- ▶ Automate
 - ▶ Never do anything manually that can be done using a script
 - ▶ Linux `systemctl` and `incron/cron` daemon for scheduling tasks
- ▶ How will you replicate your customisation across devices?

Lets move to the next part.