What can you do with Linux?

CHUGALUG 2014-09-23

BLFoley

Two classes of user

The Consumer

The Tinker

Wants things to "just work."
Blissful about a black box.

Needs or wants to understand or change how things work.

Part One

…except not really

Part Two

…except not really

Note that this is independent of experience.

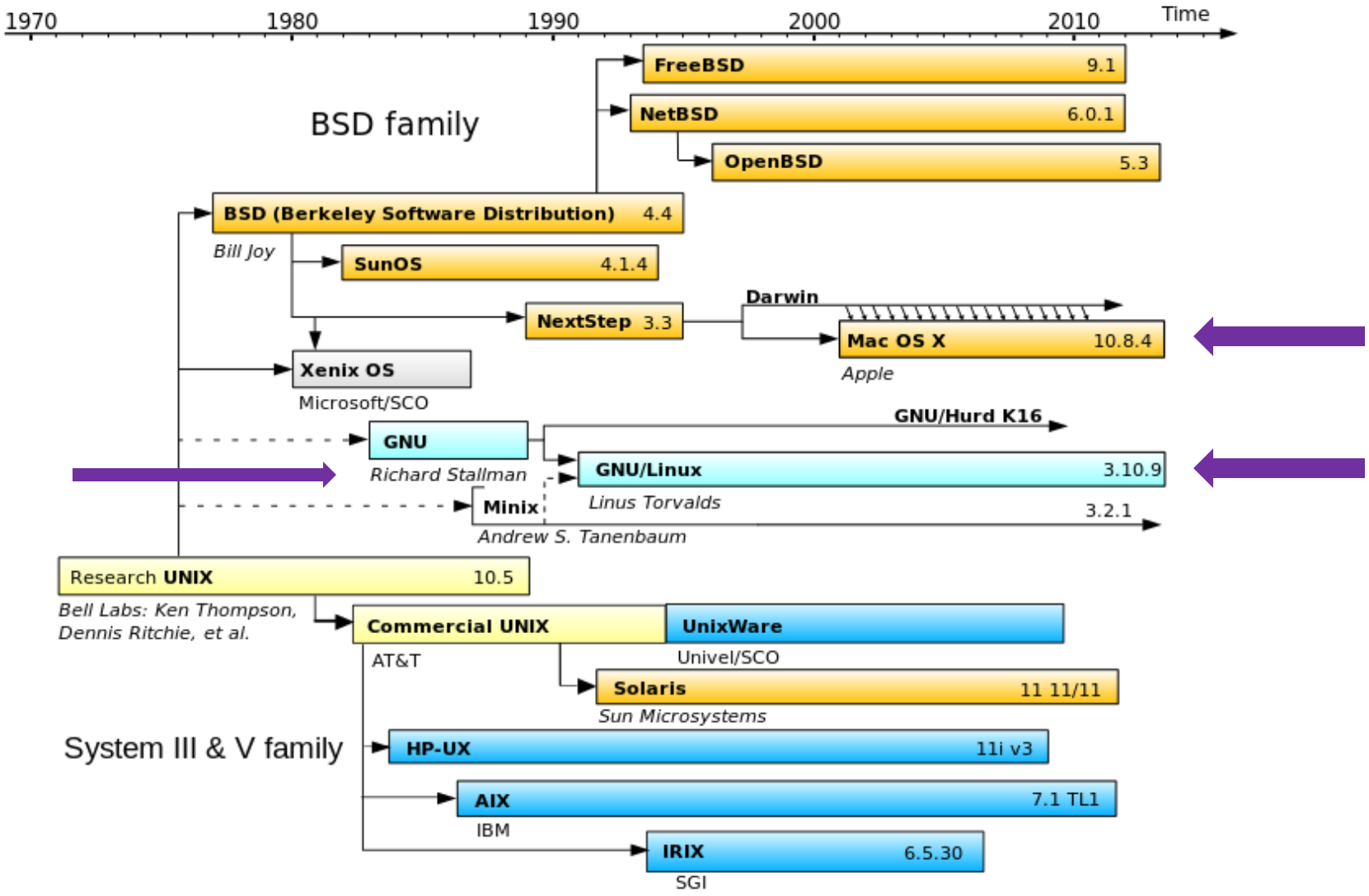
Linux is for everyone.

What is Linux?

- Strictly speaking, a kernel, but most folks mean:
- Operating system
  - Mac OS-X, Windows 7, iOS and Android are others
  - Android is a variant of Linux
- Free and Open Source Software (FOSS)
  - Free to use, copy, study, modify
- Used in many places
  - Personal computers
  - Embedded systems (phone, router, game consoles, etc.)
  - Servers (websites, cloud, etc.)
  - Supercomputers (>95% in 2013)

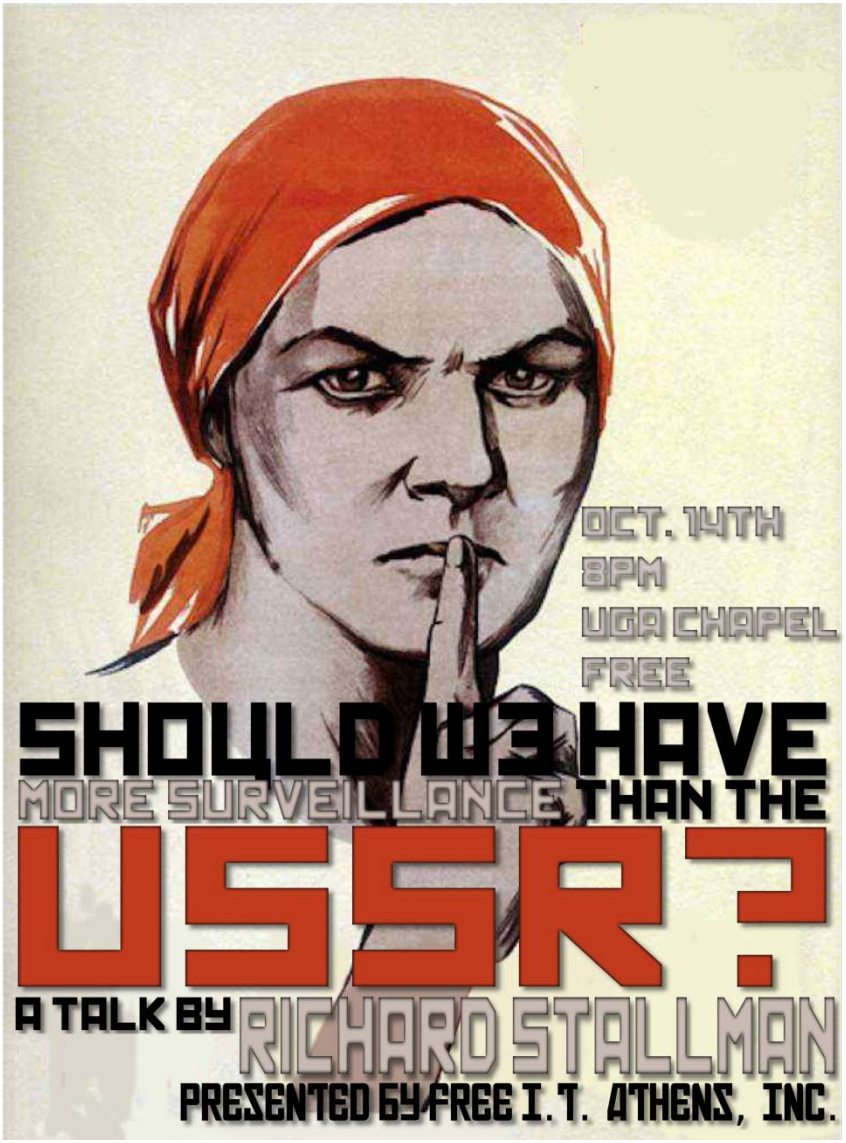
http://en.wikipedia.org/wiki/Linux

Linux's Family Tree



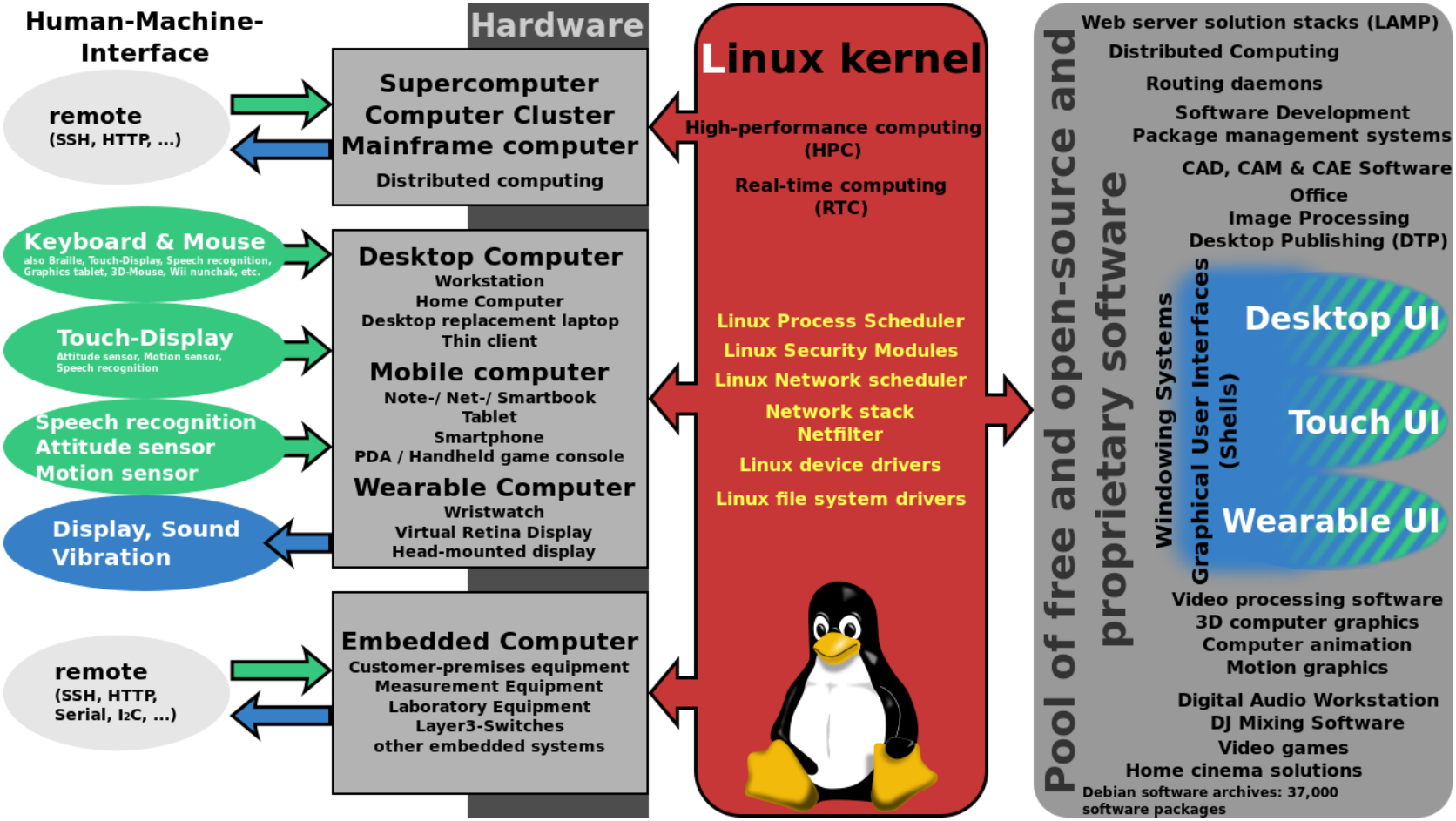
http://en.wikipedia.org/wiki/Linux

Richard Stallman is coming to UGA



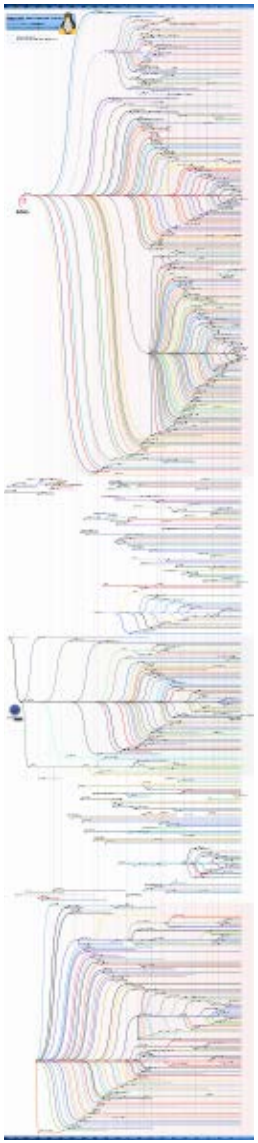
For the complete newbie

- Must choose distribution

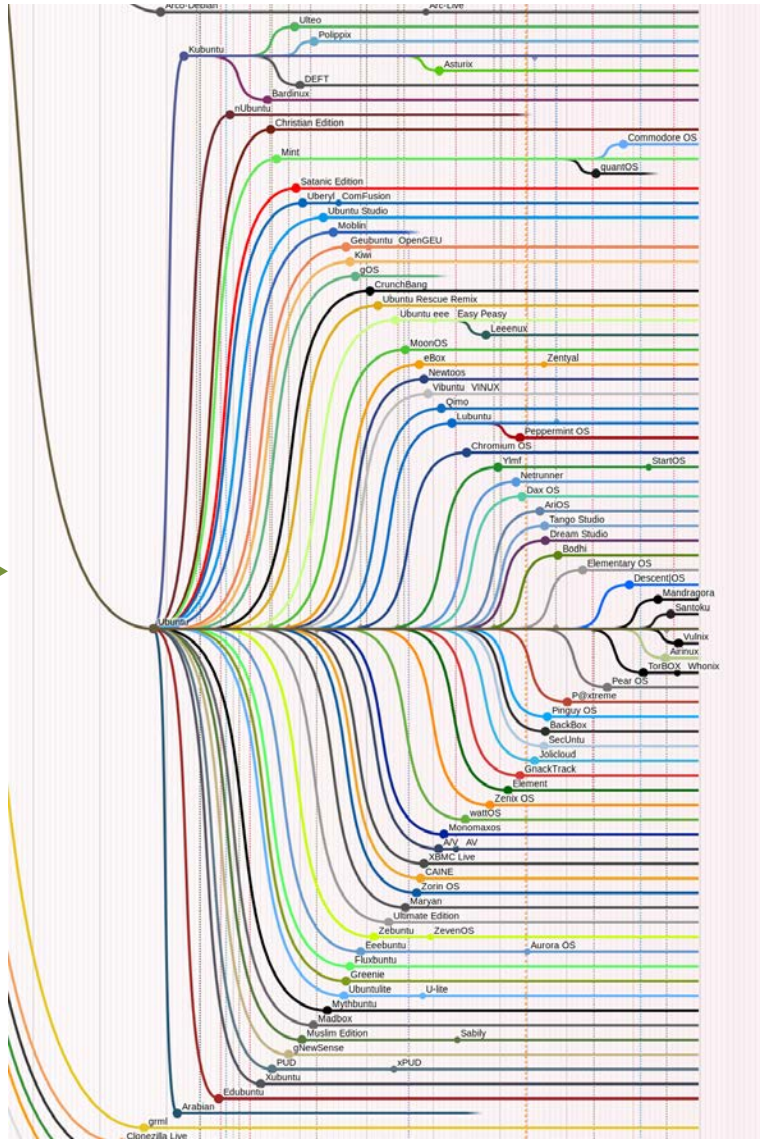


http://en.wikipedia.org/wiki/File:Linux_kernel_ubiquity.svg

There are many distros



Ubuntu Tree



http://en.wikipedia.org/wiki/File:Linux_Distribution_Timeline.svg

Choose based on needs

- For new and/or consumer users, perhaps:
  - Ubuntu, Linux Mint, Linux Deepin*

    http://www.linux.com/news/software/applications/775873-the-best-linux-distribution-for-new-users

- Advanced consumers, perhaps:
  - Debian, CentOS, Suse

- Tinkers, perhaps:
  - Arch, Slackware

- See, for example, distrowatch.com

* Not stable for virtual machines

Consider virtual machines

- For example virtualbox.org
- Try out new distros
- Test changes before applying to your main computer
- Play – make changes – with impunity
- Test networking setups, etc
- Try programs in multiple OS environments

Linux for the Consumer

- Primary operating system
  - Stable, much less concern about viruses
- Secondary operating system
  - Breathe new life into an old PC
- Many user-space applications:
  - Graphics: gimp, inkscape, kdenlive
  - Audio: audacity, rosegarden
  - Replace your TiVo or DVR: mythtv
  - Office productivity: open office, libre office
  - Browse the web, listen to music, watch videos…
  - Geographic Information System: qgis
  - Math, statistics, typesetting, etc., etc., etc.

Linux for the Tinker

- Set up a media streaming / file service at home
- Revive a *really* old PC as a thin client
- Reprogram your router
- Learn to program
- Write drivers
- Hack on the kernel
- Machine learning
- Scientific computing
- Web server
- Play with Raspberry Pi and similar
- Pretty much anything

List of websites shown

http://en.wikipedia.org/wiki/Linux
http://en.wikipedia.org/wiki/Linux_distribution
http://distrowatch.com/
http://www.linux.com/news/software/applications/775873-the-best-linux-distribution-for-new-users
http://lifehacker.com/top-10-uses-for-linux-even-if-your-main-pc-runs-window-1513172815
http://charlesmccolm.com/2013/05/06/25-cool-things-to-do-with-linux
http://www.whylinuxisbetter.net/
http://www.mythtv.org/
http://www.linuxmint.com/
http://www.libreoffice.org/
http://www.qgis.org/en/site/
https://www.virtualbox.org/
http://www.inkscape.org/en/
http://www.gimp.org/
http://www.kdenlive.org/
http://audacity.sourceforge.net/
http://www.rosegardenmusic.com/
http://unetbootin.sourceforge.net/