# Open Source Alternatives

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#### Open Source -What does it mean?

- Promotion of free redistribution of software and source code to anyone that wants it.
- Why do Open Source?
  - Diversity of software
  - Innovation
  - Peer Review
  - Freedom!

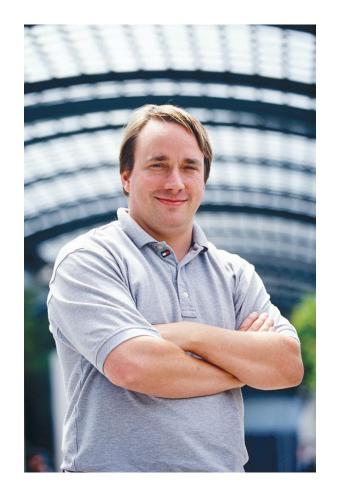
#### **Early Pioneers**

- Richard Stallman, a.k.a 'rms'
  - The Original Neckbeard
  - Started GNU OS Project
    - Helped develop Emacs, gcc, and gdb
    - Kernel (GNU Hurd) still MIA
  - Started Free Software Foundation
    - "Copyleft" mentality
  - Developed GNU General Public License
    - Forces derived works to fall under same terms



## Early Pioneers (cont.)

- Linus Torvalds
  - Developed Linux Kernel
    - Used in GNU OS
  - Project's Chief Coordinator
    - Continues to lead kernel development
  - Developed Git distributed revision control



#### Open Source Alternatives

- Operating Systems
  - Linux Comes in many flavors
    - Arch Linux, Gentoo, Debian, CentOS
    - Ubuntu, Linux Mint, Fedora
  - FreeBSD includes kernel, device drivers, and utilities in revision tree.
    - "Borrowed" by Mac OS X
  - Android OS Used by many mobile devices
    - Developed by Open Handset Alliance and Google

- Office Suite
  - LibreOffice Cross-Platform software
    - Writer Word Processor
      - Compatible with Microsoft Word
    - Calc Spreadsheet program similar to Excel
    - Impress Presentation software
    - Draw Vector Graphics Editor
    - Base Database Management System
    - Math Formula Editor

- Financial Book-Keeping
  - KMyMoney
    - Similar to Microsoft Money
    - Track multiple accounts
    - Track income and expenses
- Electronic Cash
  - Bitcoin
    - Peer-to-Peer based electronic transactions

- Media Player
  - VLC Cross Platform
    - Handles several input formats including AVI, FLV, MP4, WAV, MPEG-2, AAC, FLAC, MP3, and WMA
    - Android version currently in development
- Plotting Software
  - GNUPlot Cross Platform
    - Command line application capable of generating 2D and 3D data plots

- Encryption Software
  - TrueCrypt Encrypt private data easily
    - Allows creation of virtual encrypted disks
    - Allows encryption of partitions and storage devices
    - Allows for creation of hidden volumes and hidden operating systems

- Web Browsers
  - Mozilla Firefox
  - Chromium
  - Lynx terminal-based browser
    - For Hardcore Linux users
- Email Clients
  - Mozilla Thunderbird
  - Alpine Command line application

- Image Editing Software
  - GIMP Raster Graphics Editor
    - Most of the functionalities in Adobe Photoshop have equivalents here
    - Extensions allow for animation and GIF generation
- 3D Rendering and Animation
  - Blender 3D Modeling and Animation tool
  - OGRE 3D Graphics Engine

- Database Management Systems
  - PostgreSQL
    - Object-relational database
    - Cross Platform
    - Follows most SQL standards
    - ACID Compliant (atomicity, consistency, isolation, durability)
  - MySQL Originally under GPL
    - Relational Database Management System
    - Now owned by Oracle

- Secure Shell
  - OpenSSH Client/Server applications
    - Developed in OpenBSD project
  - PuTTY SSH client
- Web Server
  - Apache HTTP Server
    - Estimated to serve 58% of all active websites

- Random Stuff
  - VNC Remote Desktop Application
  - Pidgin Instant Messaging Application
    - Allows for AIM, MSN, Lotus Sametime, Yahoo IM, and more.
  - Synergy
    - Allows for sharing of mouse and keyboard across multiple computers.
  - ROS Robot Operating System
    - Allows for robot development (motion, image/facial recognition, motion tracking, etc.)

#### • Drinks!

- OpenCola
  - Instructions and formula freely available.
  - Over 150,000 cans sold!
- Free Beer
  - Developed in Copenhagen
  - Created to promote Open Source ideals
  - Version 4.0 Available!



#### Conclusions

- Open Source ideals are good for our community
  - It works!
    - The success of the Linux kernel is proof that quality software can be produced in a open and free environment
- If you need a software solution, there is likely an open source version available
  - If there isn't, start one!

#### Questions?

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