

A Brief History of FOSS

COMP8440: FOSSD
Lecture 4



Early Days – 60s & 70s

- Early computers came with source
 - Commercial focus was on hardware
 - Strong academic influence
- Software was mostly not portable
 - No commercial advantage to restricting distribution
 - Each machine vendor needed to develop their own
 - 'users' and 'developers' were often the same people

Early Days – hacker culture

We did not call our software “free software”, because that term did not yet exist; but that is what it was. Whenever people from another university or a company wanted to port and use a program, we gladly let them. If you saw someone using an unfamiliar and interesting program, you could always ask to see the source code, so that you could read it, change it, or cannibalize parts of it to make a new program.

(Richard Stallman, The GNU Project)

A person who enjoys learning the details of programming systems and how to stretch their capabilities, as opposed to most users who prefer to learn only the minimum necessary

Hacker – the jargon file

Hobby vs Proprietary

- 70s hobby community
 - Microprocessor chips started to become available in the 1970s
 - Micro-computers arose from the hobby electronics community
 - Strong hacker culture (eg. Homebrew computer club)
- Counter-push
 - 'An Open Letter to Hobbyists' by Bill Gates, 1976
 - Start of proprietary software industry

The GNU Project

- MIT AI Lab
 - Strong hacker culture
 - Switch to proprietary software in early 80s
 - The infamous 'Xerox printer' incident
- Richard Stallman
 - Firm stance on software freedom
 - Founded GNU project in 1983
 - Founded FSF in 1985

I consider that the golden rule requires that if I like a program I must share it with other people who like it. I cannot in good conscience sign a nondisclosure agreement or a software license agreement

(Richard Stallman “new UNIX implementation”)

Linux kernel

- Not directly associated with GNU project
 - But became the kernel used in the GNU project
- Kick-started an explosion in FOSS interest
 - Pioneered a new style of 'bazaar' development
 - Built on many existing GNU projects
 - Drew on existing Minix community

I can (well, almost) hear you asking yourselves "why?". Hurd will be out in a year (or two, or next month, who knows), and I've already got minix. This is a program for hackers by a hacker. I've enjoyed doing it, and somebody might enjoy looking at it and even modifying it for their own needs. It is still small enough to understand, use and modify, and I'm looking forward to any comments you might have.

(Linus Torvalds "Free minix-like kernel sources for 386-AT" 1991)

The *BSD projects

- Project ancestry
 - Direct descendants of original AT&T UNIX
 - Original BSD widely used in academia (1970s)
 - BSD version added sockets API and internet protocol implementation
- Net/1 release (1989)
 - Came out of CSRG at UC Berkeley
 - First release under a freely re-distributable license
 - Portions of full system still relied on AT&T code
- Net/2 release (1991)
 - First complete free Unix
 - Led to USL vs BSDi lawsuit
 - Defining moment for free software
 - A major factor in the success of Linux?

LUGs and distros

- Rise of the LUG
 - Early groups arose in 1992
 - Formed a local focus for hobbyist Linux interest
 - Major distribution channel for early distros
- Linux Distributions (1992-1994)
 - Started with HJ Lu's 'boot/root' floppies
 - Simple full distros followed – MCC and TAMU
 - SLS - First 'end user' distro
 - Yggdrasil – first commercial distro
 - Slackware derived from SLS
 - Huge explosion from there ... now many hundreds!

Rise of corporate interest

- The dot-com boom
 - Huge rise in commercial interest in free software
 - Linux programmers in great demand
 - Coincides with Internet and WWW boom
- New business models
 - Selling support
 - Funding from hardware makers
 - New 'server' Linux distributions

Open Source Initiative

- Late 90s – rise of corporate interest
 - Some found the 'free' label troublesome
 - New term created 'Open Source'
 - Open Source Definition written, tied to trademark
- Open Source vs Free Software
 - Different emphasis, but more in common than not