Open Source Software

Its history and geography

OSS: historical background

- We will look at what existed before OSS
- We will look at the birth of the modern OSS movement
- We will see what are the other members of the OSS world
- We will put Linux into a larger perspective

- Contributed software archives maintained by computer manufacturers
- Mostly libraries and scripts
- Often distributed with their systems on tape
- Mainframes and minicomputers came with such libraries
- Free in the sense of no price, no support

- The first universally popular hardware and OS platform: the IBM PC
- Software for this platform became available
  - Freeware
  - Shareware
  - Nagware
- Huge archives: `simtel.net`

- Free software: what is this freeness
- Freedom versus free-of-cost:
  - Free speech versus free beer
- Earlier Simtel-type archives were following the "free beer" free-of-cost model

- Richard Stallman started a political movement in the software world: FSF

- First program: Emacs

- Second program: The GNU `cc`

- Aim: to build an alternate eco-system

- Initiated: early eighties at the MIT, USA

- The GNU Project added huge chunks of software
- Unix became semi-free through 4.3BSD
- Unix became fully free through 4.4BSD
- Three BSD variants got down to business:
  - FreeBSD
  - NetBSD
  - OpenBSD

- *BSD is the most respected server OS
- Yahoo runs on *BSD entirely
- Internal kernel design highly optimised and robust
- Security holes less than Linux
- Ideal for server OS deployment
- Relatively little commercial software support

The birth of Linux

- Linux was born from the efforts of Linus Torvalds, a Finnish student

- It was initially technically less sophisticated than BSD Unix

- It was released under GNU GPL

- Rapid development of hardware support and device drivers

- Apache, the Web server
- MySQL the database engine
- Perl the programming language
- The famous "LAMP" set:
  - Linux
  - Apache
  - MySQL
  - Perl/PHP

- Ingres and PostGres: high-end databases
- Khoros: image processing environment
- The MIT X Window system
- The R statistical analysis system
- The NCSA httpd
- The NCSA Mosaic -> Netscape -> Mozilla
- Email and Usenet news software

Free software on Windows

- MS-DOS tradition of "shareware" continues
- Biggest archive: tucows
- Very rarely free source code
- Often "lite" versions of commercial code
- Sometimes, Windows port of Unix code
  - Apache
  - Perl
  - Mozilla/Firefox/Thunderbird
- Not Open Source

AOSS
TRAINING

- Free software is much more than Linux
- Free software is more than "shareware"
- Free software movement focuses on "free speech" and "free source"
- Free software is an entire environment:
  – Operating system kernel
  – All tools
  – All common applications
  – All server-side systems: Web server, email, database
  – All common programming languages

Thank you