History of Open Source

willem.jiang@gmail.com 2013-10

History of Open Source

- Information Sharing
- Free Software & Open Source Software
- Hackers (programmer subculture)
- Copyright & Copyleft

Early Information Sharing

- Software came with source code at first
- Operation system and Programming Language compilers
- AT&T distributed early versions of Unix
- RFC came from Internet
- Bill Gates wrote Open Letter to Hobbyists

Open letter to hobbyists

- As the majority of hobbyists must be aware, most of you steal your software.
- Hardware must be paid for, but software is something to share. Who cares if the people who worked on it get paid?

February 3, 1976

An Open Letter to Hobbyists

To me, the most critical thing in the hobby market right now is the lack of good software courses, books and software itself. Without good software and an owner who understands programming, a hobby computer is wasted. Will quality software be written for the hobby market?

Almost a year ago. Faul Allen and myself, expecting the hobby market to expand, hired Monte Davidoff and developed Altair DASIC. Though the initial work took only two months, the three of us have spent most of the last year documenting, improving and adding features to BASIC. Now we have 4X, 6K, EXTENDED, 20% and DISK BASIC. The value of the computer time we have used exceeds \$40,000.

The feedback we have gotten from the hundreds of people who say they are using BASIC has all been positive. Two surprising things are apparent, however. 1) Nost of these "users" never bought BASIC (less than 10% of all Altair owners have bought BASIC), and 2) The amount of royalties we have received from sales to hobbylsts makes the time spent of Altair DASIC worth less than 52 an hour.

Why is this? As the majority of hobbyiets must be aware, mest of you steal your software. Hardware must be paid for, but software is something to share. Who cares if the people who worked on it get paid?

To this fair? One thing you don't do by stealing software is get back at MITS for some problem you may have had. MITS doesn't make money scaling software. The royalty paid to us, the manual, the tape and the overhead make it a break-even operation. One thing you do do is prevent good software from being written. Who can afford to do professional work for sorthing? What hobbyist can pet 3-man years into programming, finding all bugs, documenting his product and distribute for free? The fact is, no one besides us has invested a lot of meany in hobby software. We have written 6000 AMSIC, and are writing 6000 APL and 6000 APL, but there is very little incentive to make this software available to hobbyiste. Most directly, the thing you do is theft.

What about the guys who re-sell Altair BASIC, aren't they making money on hobby software? Yes, but those who have been reported to us may lose in the end. They are the ones who give hobbyists a bad name, and should be kicked out of any club meeting they show up

I would appreciate letters from any one who wants to pay up, or has a suggestion or comment. Just write me at 1180 Alvarado SE, 0114, Albuquerque, New Mexico, 87108. Nothing would please me more than being able to hire ten programmers and deluge the hobby market with good software.

Bill Dates
Bill Gates
General Partner, Micro-Soft

Online Information Sharing

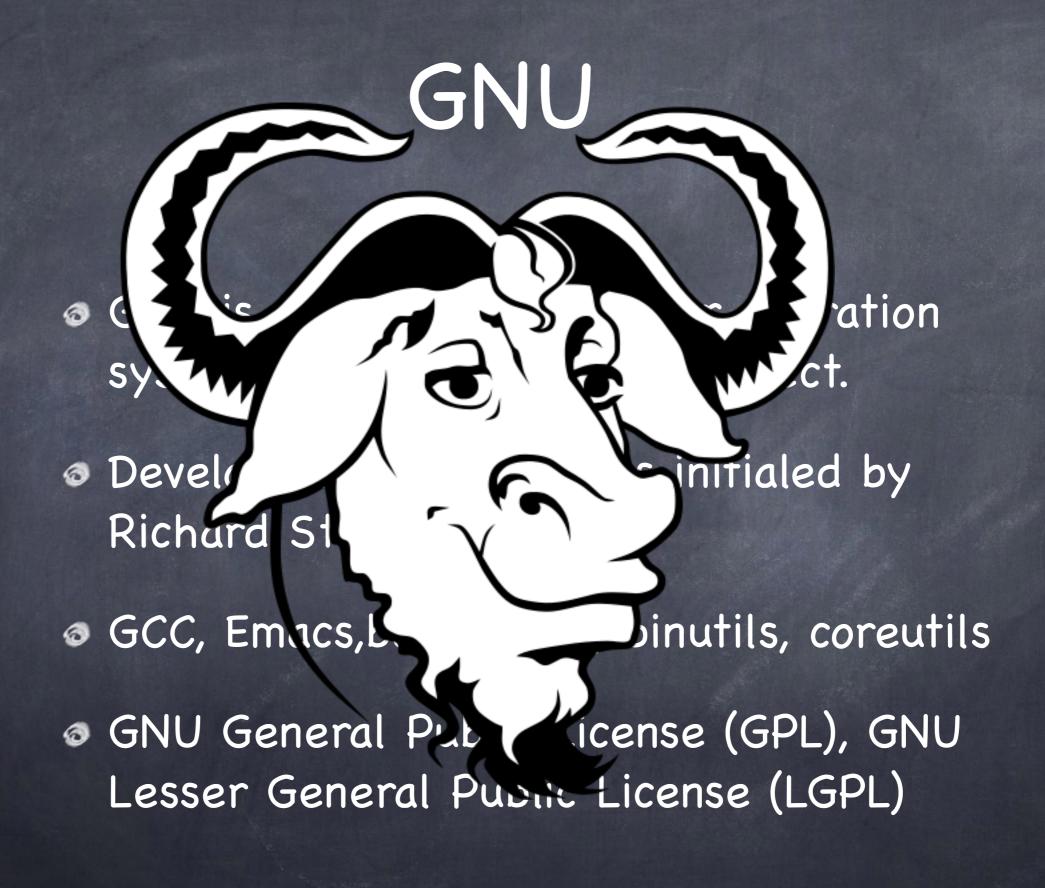
- The Internet
- GNU and FSF's early years
- Linux (1991-)
- The free BSDs (1993-)
- The dot-com years (late 1990s)
- The launch of Open Source

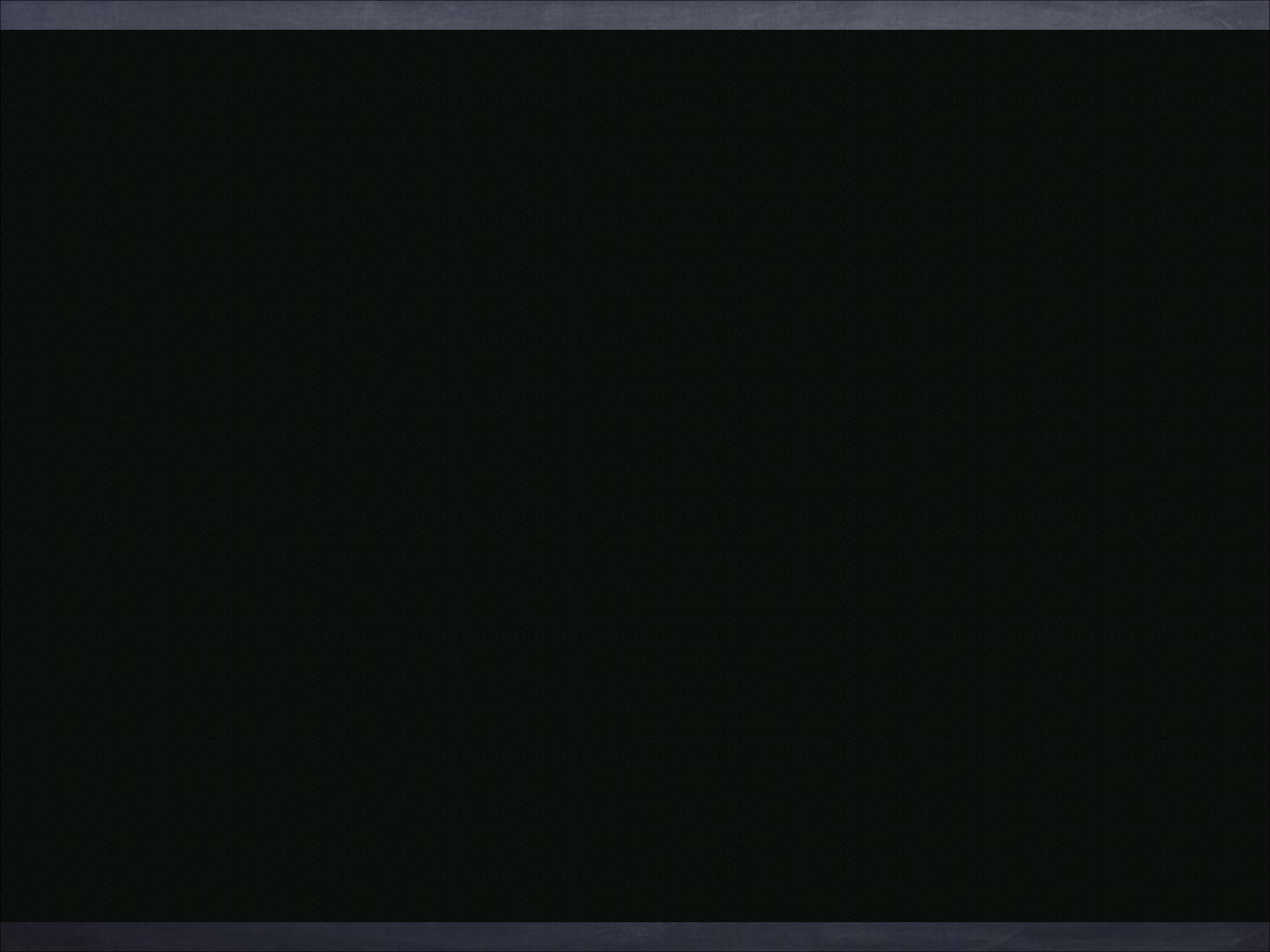
History of the Open source movement

- 1984- The GNU project at MIT, Richard Stallman, and the Free Software Foundation
- 1991- Linus Torvalds releases first Unix-like kernel; combines it with GNU software to form first release of Linux operating system
- 1994- Red Hat is founded to distribute and support Linux commercially
- 1995- A community of developers start work on Apache Web Server
- 1997- The Cathedral and the Bazaar is published by Eric Raymond
- 3 1998- The term "Open Source" is coined, the Open Source Initiative is formed

Free Software Foundation (FSF)

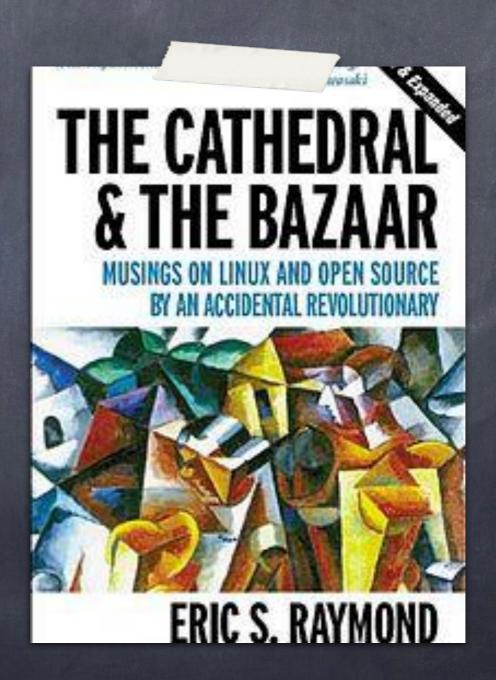
- FSF is a non-profit corporation founded by Richard Stallman on 4 October 1985 to support the free software movement, a copyleft-based movement which aims to promote the universal freedom to create, distribute and modify computer software.
- Started the GNU project, GNU license etc.





The Cathedral and The Bazaar 大教堂与集市

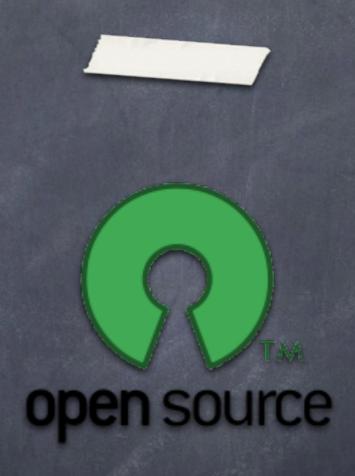
- By Eric S. Raymond
- The Cathedral model
- The Bazaar model
- Given enough eyeballs, all bugs are shallow"



- Every good work of software starts by scratching a developer's personal itch.
- Good programmers know what to write. Great ones knows what to rewrite (and reuse).
- Treating your users as co-developers is your least-hassle route to rapid code improvement and effective debugging.
- Release early. Release often. And listen to your customers.
- To solve an interesting problem, start by finding problem that is interesting to you.

Open Source Initiative

- OSI is an organization dedicated to promoting open source software.
- © OSI was found in February 1998, by Bruce Perens and and Eric S. Raymond, prompted by Netscape Communications Corporation.









Free Software and Open Source Software

- Open Source Software != Free Software
- Free Software must be Open Source Software
- OSI focuses on software development and marketing
- FSF focuses on the "freedom" of free software

The Free Software Definition

- The freedom to run the program for any purpose
- The freedom to study how the program works, and change it to make it do what you wish
- The freedom to redistribute copies so you can help your neighbor
- The freedom to improve the program, and release you improvements (and modified version in general) to the public, so that the whole community benefits

Open Source Definition

- Free Redistribution
- Program must include Source Code and must allow distribution in source code as well as compiled form
- Must Allow Modifications and Derived Works
- Integrity of the Author's Source Code
- No Discrimination Against Persons or Groups
- No Discrimination Against Fields of Endeavor
- Distribution of License
- License Must Not Be Specific to a Product
- License Must Not Restrict Other Software
- License Must Be Technology-Neutral

Free and Open Source Software (FOSS)

Hacker

- Hacker is not cracker.
- A person who enjoys exploring the details of programmable system and stretching their capabilities, as opposed to most users, who prefer to learn only the minimum necessary.
- Hacker ethics are concerned primarily with sharing, openness, collaboration, and engaging in the Hands-On Imperative.

Copyright

- © Copyright is legal concept, enacted by most governments, giving the creator of an original work exclusive rights to it, usually for a limited time.
- The right to copy.
- It is an intellectual property form.

Who owns a copyright?

- The author, Unless the author is an employee.
- Why does ownership matter?
 - Only the owner can enforce a copyright
 - Only the owner can transfer ownership of the copyright to another
 - Only the owner can license others (directly or indirectly)

Copyleft

- Copyleft is a play on the word copyright.
- © Copyleft is a general method for making a program (or other work) free (libre), and requiring all modified and extended versions of the program to be free as well.
- Some copyleft licenses are known as reciprocal licenses.

Proprietary Software

- Proprietary software is computer software licensed under exclusive legal right to the copyright holder.
- The licensee is given the right to user the software under certain condition, while restricted from other uses, such as modification, further distribution, or reverse engineering.

Wrap Up

- Freedom definition of the Free software
- FSF & OSI
- Hacker
- Copyright & Copyleft

Reference

- http://en.wikipedia.org/wiki/ History_of_free_and_opensource_software
- http://en.wikipedia.org/wiki/
- http://www.slideshare.net/markradcliffe/ introduction-to-open-source-licensing