History of Open Source

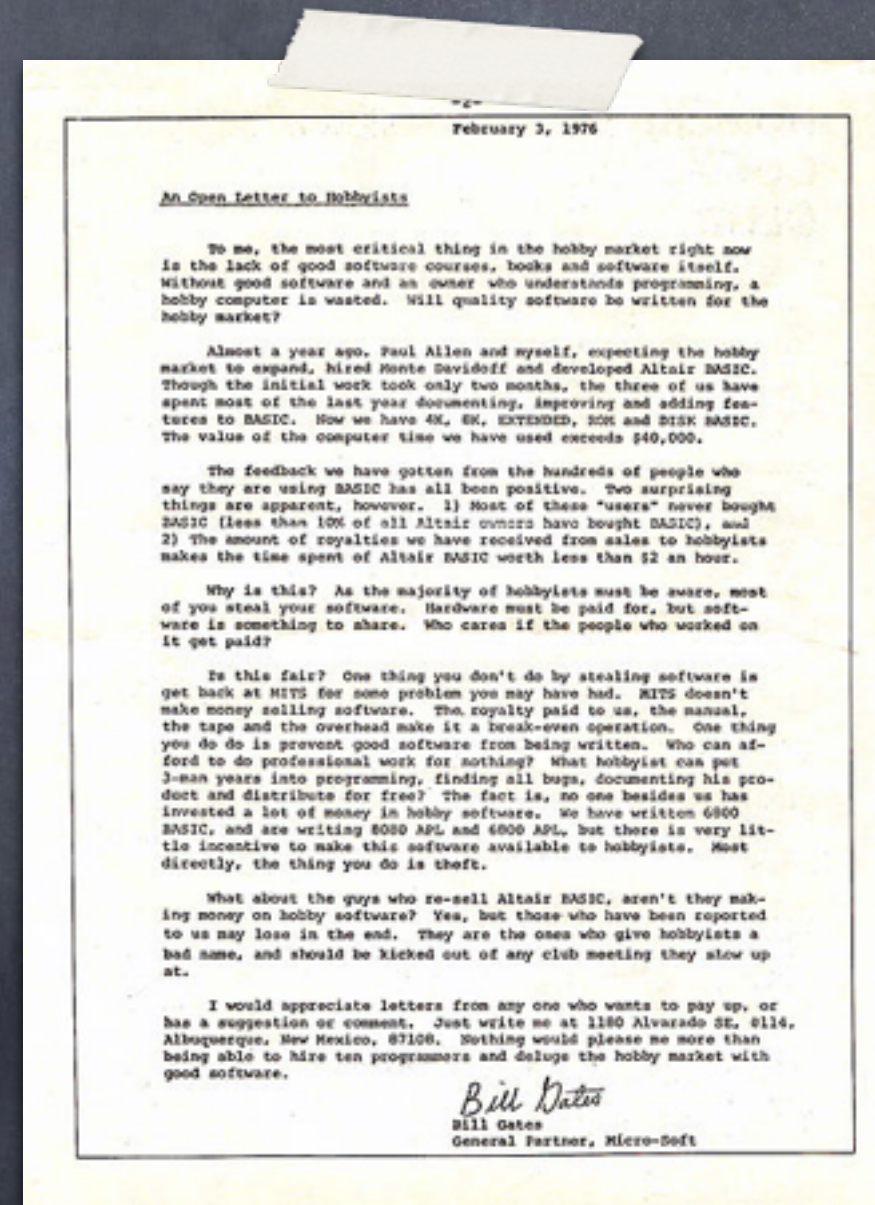willem.jiang@gmail.com

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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?

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

- 1998- The term "Open Source" is coined, the Open Source Initiative is formed
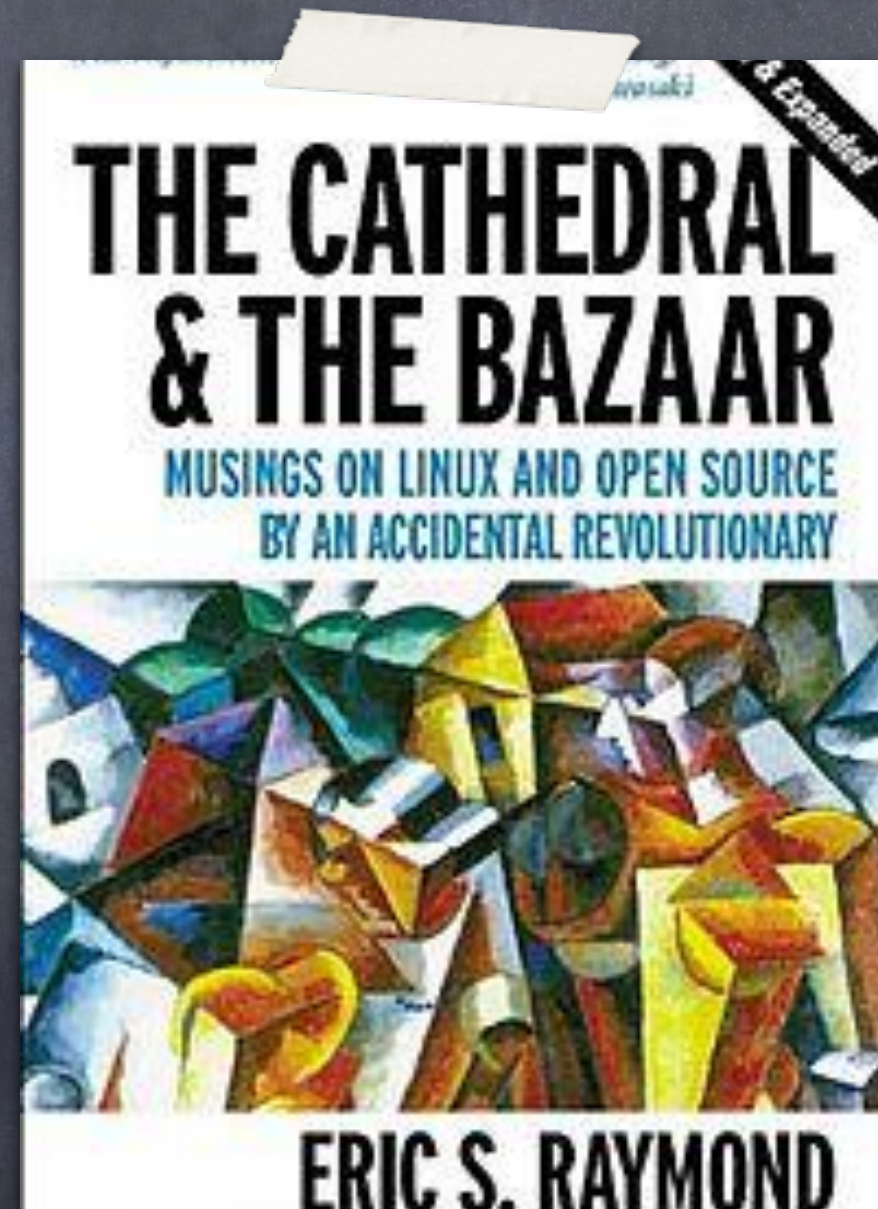
Free Software Foundation (FSF)

- 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.

GNU

- G is   ration
  sy   ct.

- Devel   initialed by
  Richard St

- GCC, Emacs,   binutils, coreutils

- GNU General Pu   icense (GPL), GNU
  Lesser General Public License (LGPL)
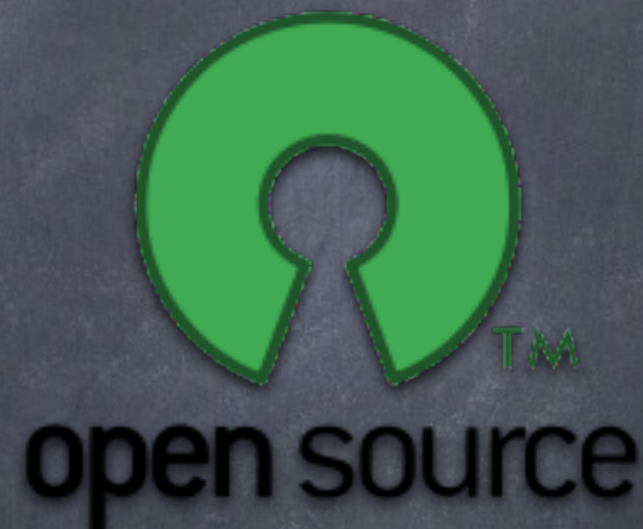
The Cathedral and The Bazaar 大教堂与集市

- 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

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