

# History of Open Source

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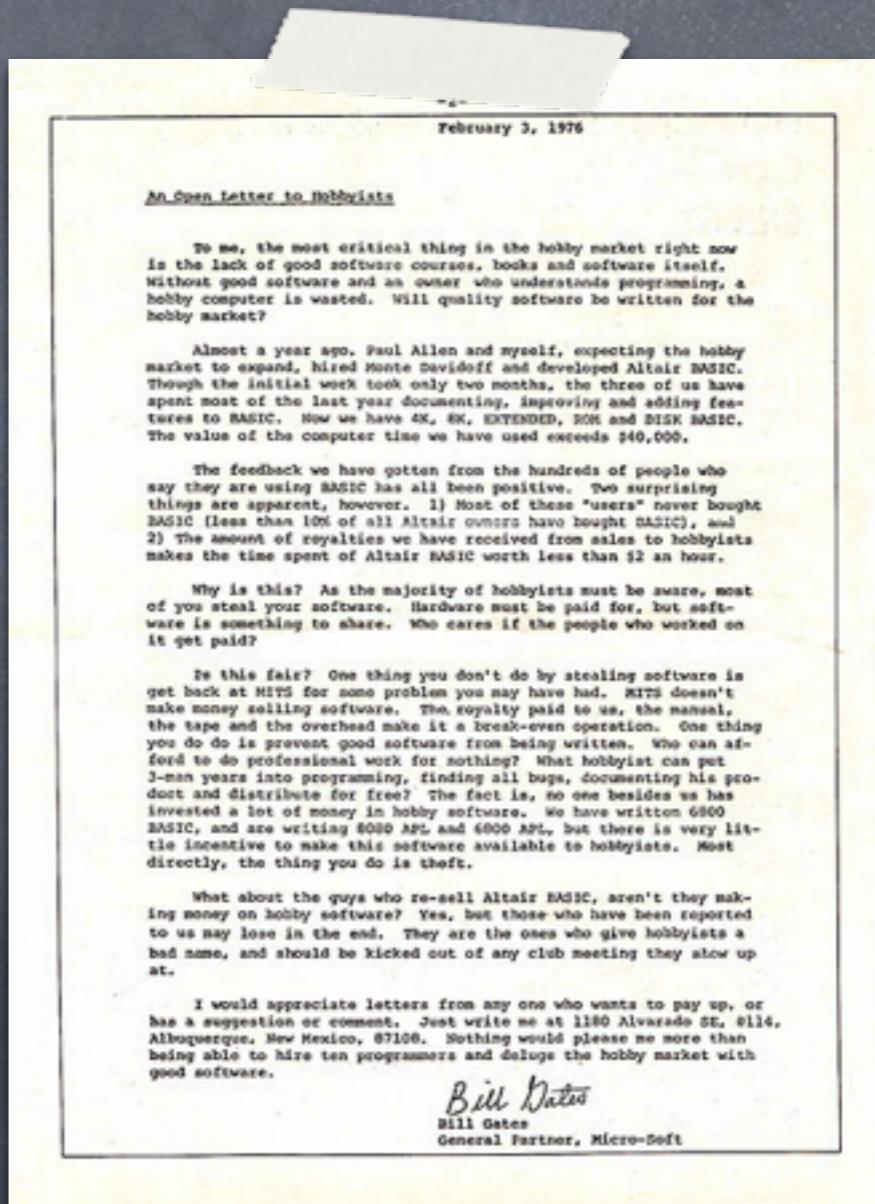
- ⦿ Information Sharing
- ⦿ Free Software & Open Source Software
- ⦿ Hackers (programmer subculture)
- ⦿ Copyright & Copyleft

# 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

- ⦿ GNU is a Unix-like computer operation system developed by GNU Project.
- ⦿ Development of GNU was initiated by Richard Stallman
- ⦿ GCC, Emacs,bash, glibc, binutils, coreutils
- ⦿ GNU General Public License (GPL), GNU Lesser General Public License (LGPL)

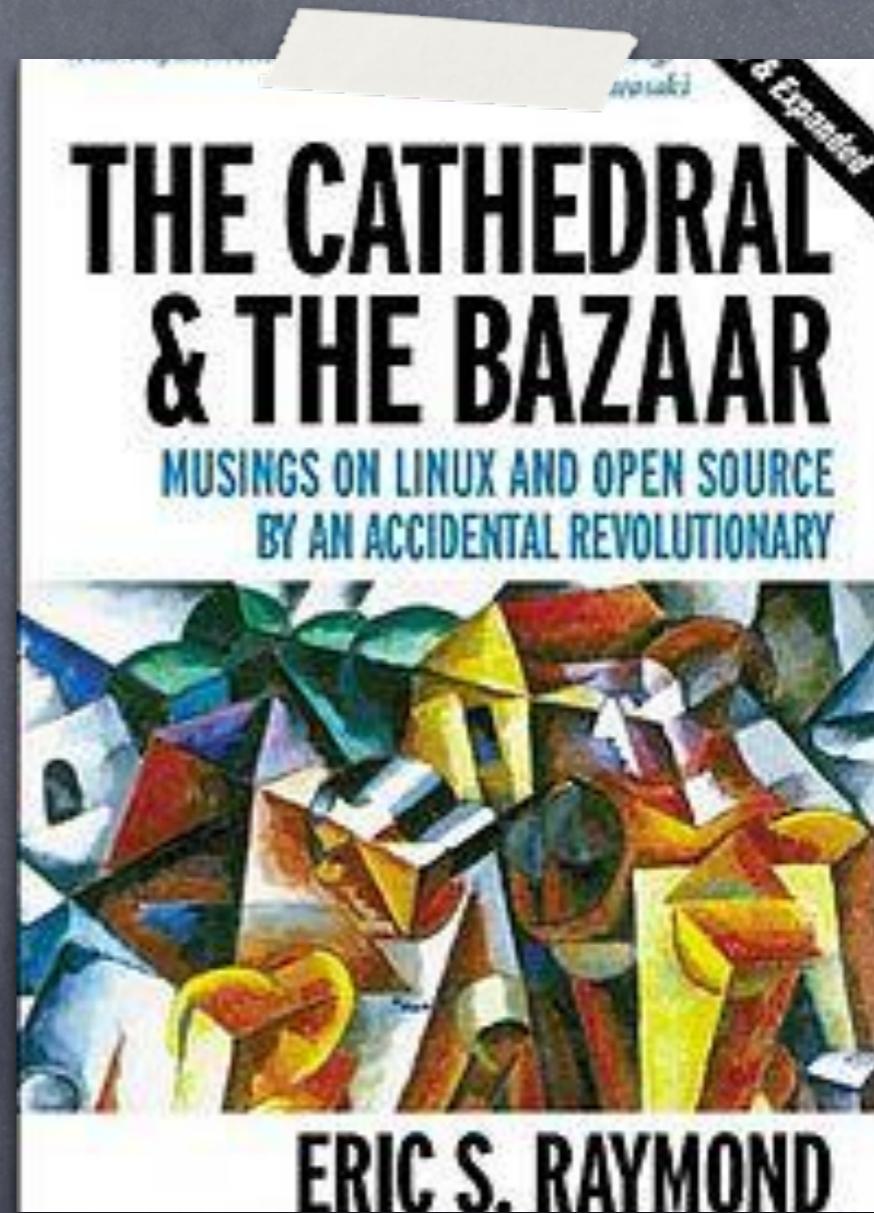
# GNU

- 
- GNU General Public License (GPL), GNU Lesser General Public License (LGPL)
  - Initiated by Richard Stallman
  - GCC, Emacs, bash, coreutils, coreutils
  - Developed by Richard Stallman
  - GNU system, Linux distribution



# 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 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** your 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?

- ➊ The author, Unless the author is an employee.
- ➋ Why does ownership matter?
  - ➌ Only the owner can enforce a copyright
  - ➍ Only the owner can transfer ownership of the copyright to another
  - ➎ 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\\_open-source\\_software](http://en.wikipedia.org/wiki/History_of_free_and_open-source_software)
- ⦿ <http://en.wikipedia.org/wiki/>
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introduction-to-open-source-licensing](http://www.slideshare.net/markradcliffe/introduction-to-open-source-licensing)