

CSE471 - Free and Open Source Software

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Credits

The credits for the contents of this presentation goes to Karl Fogel and his book “Producing Open Source Software”. You are as free to reuse and redistribute the contents of this presentation as I am in using Fogel’s book’s content.

Contents

- 1 Introduction
- 2 History
- 3 Overview of the development process
- 4 Technical Infrastructure

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Introduction

- More reasons why open source projects fail.
 - ① Expecting hordes of oompa-loompas to magically volunteer for you.
 - ② Expecting that releasing the source will be a cure of all its ills.
 - ③ Skimping on presentation and packaging to develop “more important stuff”.
 - ④ Expecting that the same management practices used for in-house development will work equally well on an open source project.
 - ⑤ Failures of “Cultural Navigation”.

“Open source does work, but it is most definitely not a panacea. If there’s a cautionary tale here, it is that you can’t take a dying project, sprinkle it with the magic pixie dust of “open source,” and have everything magically work out. Software is hard. The issues aren’t that simple.” -Jamie Zawinski, The Mozilla Project

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- There was no hardware standardization and the manufacturer wanted machine-specific code and knowledge to spread as widely as possible.
- There was no Internet, and widespread frictionless sharing as we know it today, was not possible.

The Rise of Proprietary Software and Free Software

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- Ironically, the Internet was getting off the ground around the same time.

The Rise of Proprietary Software and Free Software - Conscious Resistance

- “Richard Stallman” happened.

“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.”
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- GNU was aimed at developing a completely free and open computer operating system and body of application s/w.
- “The GNU General Public License (GPL) says that the code may be copied and modified without restriction and that both copies and derivative works must be distributed *under the same license as the original with no additional restrictions.*”

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- Becomes GNU Linux, the world's first free and open source operating system.

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This presentation is built using ‘Beamer’ which is an extension of L^AT_EX, built on T_EX.

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- 1998 - the word “open source” is coined by Open Source Initiative (OSI ) to disambiguate “free” and aimed at giving ‘free software’ a good marketing.

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- So what persuades all these people to stick together long enough to produce something useful?
- The feeling that their connection to a project, and influence over it, is directly proportional to their contributions.
- Clearly, projects with corporate sponsorship and/or salaried developers need to be especially careful in this regard.

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- So, first, *look around!* github.com, openhub.net, sourceforge.net, directory.fsf.org

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 - Handle availability in Twitter, FB.

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 - Copyright date
 - Holder
 - The kind of license
 - Where to find the full text of the license.

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Overview

- Website
- Mailing lists / Message forums
- Version control
- Bug tracking
- Real-time chat

Website

- Canned Hosting Services.

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 - ➊ Create a 'repository'.
 - ➋ Open an 'issue'.
 - ➌ Create a 'branch'.
 - ➍ Make a 'commit'.
 - ➎ Open a 'pull request'.
 - ➏ 'Merge' a pull request.