

Open Source Software

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What is

Open Source Software

Software

There are many types of software

- **Computer Applications**
- System software
- Utility software

In technical terms...

- Set of **instructions** that are **executed** by the computer **hardware**.

Open Source Software

Software that allows users to do 3 important things with the Source Code.

- Study
- Modify
- Redistribute

Source Code

Set of instructions for the computer to execute, however...

- Plain **human-readable** text
- In the form of the **syntax** for a programming **language**

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How does Source Code Work

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How does Open Source Software work

Instead just of providing the binary or packaged files to the user.

Open Source software also provides public access to the **Source Code**.

How does Open Source Software work

Licenses !!!

There are many types of the licenses.

- **Permissive:**
Contain very few restrictions as to how software can be used, modified, and redistributed.
- **Copyleft:**
Restrictive, the software can be modified and redistributed as long as the redistributed software is free and open source (FOSS) and under the same license.

Proprietary:

Most restrictive, usually used for commercial or proprietary software. The software cannot be modified, or redistributed, such software is not open source. Many popular software companies use such licenses:

- Adobe
- Microsoft
- Google

What are the benefits of open-source?

Open-source software encourages collaboration and better organization.

Developers are more likely to:

- Add and improve ideas and features in an application.
- Develop modular applications that support plugins, scripts, etc.

As anyone is allowed to view and manipulate the code of an application:

- Bugs and exploits are found much faster and tend to be patched much faster.
- Users can help find bugs and increase the accessibility of an application.

More benefits!

Git:

- Centralized version control
- Manage branches and forks
- Merge developed features into main branch

Consumer benefits:

- Up-to-date and latest features
- Secure
- Transparency

I can go to Linus Torvalds Linux kernel repo and see what changes have been made today, what changes were made 2 months ago, who made them and why. [Here](#)

Now imagine that this is the same base kernel that has been forked many times and is now running:

- Android phones
- TV's
- Routers/modems
- Home security systems

Discussions

After talking to a few individuals about their thoughts on open-source software...

- Most people have no interest in the rules and restrictions that open-source software licenses have
- Most people just care about the end-user experience.

Conclusion

- Many people I talked to expressed their familiarity with using paid software like Windows, Photoshop, and Acrobat Reader.
- It is always nice to know that open-source software is there to fill in the gaps.
- Give open source software a try, you might find it a lot better.

My favorites:

- Arch Linux
- MPV
- Emacs
- LibreOffice

Thank You :)