

Open Source Software

Lecture #5

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Content

- Copyright
- Copyleft
- Difference between copyright and copyleft
- Software License
- FOSS License
- GNU General Public License

copyright

- In the U.S. and many countries, there are certain legal protections you are automatically granted for any creative work you produce, one of those being *copyright*. The U.S. Copyright Office defines copyright as “a type of intellectual property that protects original works of authorship,” This means with copyright you are the owner of your work.
- Copyright grants the owner various rights, such as reproducing and distributing copies of the work. If an owner wants control over how their work can be used by others, then they must implement a *license* that outlines the rules by which those users must abide. If the copyright owner states the work is “All Rights Reserved”, this means that their work cannot be used or modified by anyone at all, except themselves

- A **copyright** is the exclusive legal right over how original content or materials you've made get copied, shared, reproduced, printed, performed, or published by others.
- Copyright law automatically protects your original materials and helps prevent theft and other unauthorized uses..
- **Some examples of copyrighted works include:**
 - Art
 - Literature
 - Videos
 - Images
 - Photography
 - Music
 - Sound clips
 - Computer software

-Most creative works can be copyrighted, which means the creator owns the work and no one can use it without permission. Computer software and code falls into this category and so is eligible to be copyrighted. However, because programming is a field where new creations are often built on existing programs.

-Example, assume you bought a DVD of any movie, you can use this DVD according to specific rules, You cannot do anything with it that is not allowed by the publisher like copying the DVD and give a copy to your friend. This is because the publisher has the copyright of the movie and will probably sue you if they know you are copying the DVD

Copyleft

- Copyleft : is a general method for making a program free software and requiring all modified and extended versions of the program to be free software as well. The simplest way to make a program free is to put it in the public domain, uncopyrighted. This allows people to share the program and their improvements if they are so minded.
- Copyleft also helps programmers who want to contribute improvements to free software get permission to do so.
- But it also allows uncooperative people to convert the program into proprietary software. They can make changes, many or few, and distribute the result as a proprietary product. People who receive the program in that modified form do not have the freedom that the original author gave them.

- To copyleft a program, we first state that it is copyrighted; then we add distribution terms, which are a legal instrument that gives everyone the rights to use, modify, and redistribute the program's code, *or any program derived from it*,
- the specific distribution terms that we use for most software are contained in the [GNU General Public License](#).
- Using the same distribution terms for many different programs makes it easy to copy code between various different programs. When they all have the same distribution terms, there is no problem

“Copyleft” has had a critical effect on shaping the very existence of open source software communities. Open source software uses copyright law to preserve certain freedoms (hence the name, “free software”) regarding the creation, modification, and sharing of software. Specifically, **all open source software grants users the following key rights:**

- **1. The right to full access to the source code.** When a computer programmer sees how a piece of software actually works, as specified in the source code, they can fully understand the inner workings and can intelligently modify the software as they deem appropriate.
- **2. The right for anyone to run the program for any purpose without restriction.** There are no restrictions against commercial, military, foreign, or any other use, and discrimination against users for any reason is expressly forbidden.

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- **3. The right to modify the source code.** This includes absorbing the software, in whole or in part, into other pieces of software created by other developers.
- **4. The right to distribute both the original software and the modified software.**
- **5. The right to know about their open source rights:** The open source license must be prominently displayed and distributed to users.

Difference between copyright and copyleft



Copyright

Protects work of the Author
from unauthorized copying
or selling the work



Copyleft

Provides a method for work
to be modified & distributed
back to the community



	Copyright	Copyleft
1.	Copyright is the right that enable you to prevent unauthorized copying or selling of your work.	Whereas Copyleft is a method using which you can modify the software or documentation and distribute it back to the open-source community.
2.	In Copyright the work is original and not the copy of other.	On the other hand Copyleft comes with an idea of collaboration.
3.	Copyrights protects you original ideas from others access.	While Copyleft allows you to make changes to other ideas and give them back.
4.	Copyright is all about granting individual permission.	Copyleft is all about user freedom.
5.	You can apply Copyright protection both to work that you have published into the public domain and work that you have not published.	While Copyleft allows users to distribute derivative works under a license that offers the same rights as the original work.
6.	Examples of Copyright: Suppose you made a movie, now if anyone else wants to make its sequel, he has to buy copyright from you.	Examples of Copyleft: Red Hat Enterprise Linux is a good practical example of copyleft. Which is a commercial operating system. Users are free to modify and redistribute the source code but they are not allowed to resell it.
7.	It is denoted by ©	It is denoted by mirror image of copyright symbol.

Software License



License Licensors and Licensees:

- The term “License” means permission.
- The copyright holder known as “Licensor”.
- The licensor grants another person (named “Licensee”) specific permissions to use the work.
- A license is a subset of the privileges that the copyright act grants the licensor.
- The licensor permits the licensee to use these privileges as agreed between the two parties in the license.

- A *software license* is a legal agreement that defines how a given piece of software can be used.
- A *software license* is a document that provides legally binding guidelines for the use and distribution of software.
- Some developers may want to place strong restrictions over how their software can be used. Others, however, may choose to license their software with few or no restrictions. This may be because they want their software to be as widely used as possible.

- an *open-source software license* make the source code available for use, modification, and distribution based on agreed-upon terms and conditions. There are many different open-source software licenses, and they vary based on the restrictions a creator may want future users to abide by.
- it's useful to understand the open-source software licenses available so that you can make an informed decision about which one best suits your project's needs.
- any original work will have copyright upon completion, but without a license, it's unclear what is and isn't allowed for those who want to use it. Consider the following reasons why you might include an open-source software license:

Why Include an Open-Source Software License?

- **Improvement:** Using an open-source software license invites users to engage in community development. This creates a shared sense of responsibility to consistently improve the source code or expand the program further to everyone's benefit.
- **Ownership:** If you want to exercise more power over your work, choosing a license that can place those restrictions will help you do so.

- **Competition:** There's a plethora of software out there and if you want to break into that market, using an open-source license can help put you on the map. Some popular examples of open-source software that were developed to compete with established proprietary alternatives include the Linux operating system, Android by Google, and the Firefox browser.

FOSS LICENSES

The Free Software Foundation FSF publishes lists of licenses.

The most popular of these licenses are:

- a. GNU General Public License
- b. FreeBSD License.
- c. Mozilla Public License.
- d. Apache License.
- e. X11 License (also known as MIT License).

. But it is important to note that these licenses are in compliances with “Free Software” definition and approved by FSF and their source code is Open Source. With the evolution of FOSS, the FOSS licenses also

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Accept

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Thanks for Listening