

Open Source Software Brief

Explanation with History

In the early 1980s MIT programmer Richard Stallman decided to build a replacement for his very expensive, proprietary UNIX computer operating system and make it completely free. He extended the boundaries of what “free” meant when he formed the Free Software Foundation (FSF) and included in his mission statement, “availability of source code and freedom to redistribute and modify software are fundamental rights.” Out of this the General Public License (GPL) was born.

Explanation with Legalese

Whereas proprietary licenses like those that are necessary when running a Windows machine ensure that we never actually own the software but are only licensed to use it, licenses such as the GPL ensure that we completely own the software we need to use. Specifically, we own the source code (the set of instructions that creates a piece of software) and are free to change that code if needed. Further, we may redistribute that software as long as we do so in the same fashion in which we received it, e.g., freely.

This type of license has been called a “viral license” since everything derived from the software must legally remain free. While that description was intended to be derisive, it does accurately describe the free nature of the GPL license and the code it protects. There are hundreds of different licenses deemed free or Open Source-compatible, and all address different areas of protection. Some are even a couple of lines simply stating that you may do with the software what you wish.

Benefits of Open Source

So where does this fit in with our work? If we simply look at the cost of owning a copy of Windows and translate that to some of the people we work with, the benefits are quite obvious. A single license for using Windows on a computer is US\$200-300 or more, depending on the version. That licensing cost is in addition to the hardware costs, although often it is included in the total price. A copy of Ubuntu Linux, by contrast, is free. Giving that copy of Ubuntu to another person after you have installed it is also free and legal. When it is time to upgrade to a new version, the Windows software will cost around US\$100; that Ubuntu software will once again be free.

Still, many other benefits might not be apparent. The free and Open Source software community is unlike any other. People from all over the world contribute to the creation of a wide variety of software. While each community determines various ways to organize and maintain its projects, what they all have in common is that since everyone has the right to see and change the code, many people submit those changes back to the project to make it better and stronger. These applications develop at a very rapid pace, and they are also highly peer-reviewed. This can often translate to very stable applications with fewer security risks.

This is, simply put, freedom and access to tools that allow people all over the world to make their lives and the lives of others easier.