Why Computer Users Should Use Free Software

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Abstract

This persuasive essay describes why most computer users should us free software. Free software is software that can be freely copied, redistributed and modified, including source code; software that is libre. Evidence from the Free Software Foundation, the Electronic Frontier Foundation, and other organizations are used. Supporting evidence is also provided by books and speeches from Richard Matthew Stallman as well as other various independent authors. This essay concludes that free software is better than proprietary software even if personal/technical inconveniences are involved. It is recommended that the modern computer user uses free software more than any other type of software.

Keywords: free software, proprietary software, freedom, trust, reliability

Why Computer Users Should Use Free Software

You are not safe. The majority of modern computer users have their personal information used and sold by large corporations and governments. The problem is that most computer users put innovation and convenience before freedom, which is very concerning. This allows unwanted individuals or groups to access the user's personal information and manipulate them without their knowledge or consent. Free software is served as a solution to this problem as it puts the user's freedom above anything else.

The purpose of free software is to ensure the freedom of the user, not to be confused with software that is free which is software that is provided at no cost. This is achieved by licensing said software under a free software license. By having a free software license, the software being used guaranties the four freedoms as defined by the Free Software Foundation. "The freedom to run the program as you wish, for any purpose (freedom 0). The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this. The freedom to redistribute copies so you can help others (freedom 2). The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this." "What is Free Software?" (n.d.). By having these four freedoms, a piece of software is guarantied to be free software.

The opposite or counterpart of free software is proprietary software. Proprietary software refers to software that is non-free, isn't licensed under a free software license, and or software that does not respect the user's freedom. Proprietary software is usually made for one main purpose, to make money rather than to provide an open solution. Most proprietary software also usually does not have any of the four freedoms of free software as the creator does not allow the users access to the programs source code or by making it illegal to do so.

Computer users should use free software as it has many benefits including, but not

limited to, user freedom, trust, and reliability. These benefits can be traced back to the four freedoms guaranteed by free software, as defined by the Free Software Foundation. User freedom, trust, and reliability are very important in the modern age of computing as nowadays a lot of people live and work on their computers. As people put more of their life into the digital world, these three points are important to make sure that nothing bad happens to them personally.

Using free software has become more and more important for any computer user as dependence on technology increases over the years. As we become more dependent on technology, our personal freedom will soon become limited by the freedom of our technology. This is why free software is extremely important as it makes sure that human freedom in the modern age is not artificially restricted. The longer proprietary software (software that is non-free) is used commonly, the more that personal human freedom will degrade.

One of the most important factors to consider when using free software is (of course) freedom. The freedom that free software provides to the user are the four essential freedoms defined by the Free Software Foundation. These freedoms allow anyone, anywhere to run, study, modify, and redistribute the software being used in any way they want. This differs from proprietary software as it does not always guarantee those four freedoms.

The reason that these four freedoms are important is that this ensures that the user controls the program and the hardware that it is running on. If the software being used is non-free then it is not possible to determine who controls the user's software and hardware. "With software there are two possibilities, either the users control the program, or the program controls the users." Stallman (2014). If the user does not have complete control of the software then this can lead to unwanted and malicious side effects.

For example, one of the most popular computer operating systems today, Microsoft Windows, is known to spy and track it's users. "Suffice it to say, Windows 10 collects a lot of data and you agreed to it when you installed the operating system." Nelson (2016). The

reason that this problem exists in Windows is because Windows itself is a non-free or proprietary program, which lets Microsoft get away with it. If Windows were to be licensed under a free software license, then this problem would probably cease to exist as users can edit the code to Windows and redistribute it without any spying capabilities. However, since Windows is licensed under a proprietary license, this makes viewing, editing, and redistributing the source code illegal.

As a matter of fact, most proprietary software actually ends of being malware as it does things behind the user's back and puts the creator over the user. "Proprietary software, also called non-free software, means software that doesn't respect users' freedom and community. A proprietary program puts its developer or owner in a position of power over its users. This power is in itself an injustice." "Proprietary Software Is Often Malware" (n.d.). This goes to show that proprietary software usually doesn't respect the users freedom, but rather uses them as a way to make money. Most proprietary software is created by large corporations, and large corporations usually only care about one thing in the end: money.

This just goes to show that free software is very important when it comes to someone's freedom and privacy. If software is not free or the source code is not publicly available, then the user has no idea if it spying on them or not. This also applies to other items on the computer as well, if the software is not free then the software being used could be doing a number of malicious things in the background without the user knowing. Free software usually doesn't have this problem because the user can look at the source code of the program to see what it is doing.

Freedom in free software can also fall into the category of redistributing said software. If your friend or a family member needed to use a piece of software then you're able to freely give them a copy, no questions asked. It isn't illegal to redistribute or sell copies of free software to other people unlike with proprietary software. This allows free software to be easily used by anyone who can run or compile it. The same thing applies to

redistributing copies of software that you changed yourself or copies that other people changed as well.

The freedoms of free software let the user do almost anything they want with it, even if the creator doesn't like it or intend for it used in a certain way. This allows the user free reign over their computer as they can essentially do whatever they want and not have any worries or doubts. When it comes to freedom with free software, the sky is the limit.

Another important factor to consider when it comes to using free software is trust. Free software is perhaps the most trustworthy type of software as everything about free software is transparent to the user. This level of trust is, of course, derived from the four essential freedoms promised by all free software. On the other hand, proprietary software cannot be as easily trusted as it is not fully transparent towards the user.

The reason that trust in software is so important is because people are relying more and more on software everyday. One great example of software not being very trustworthy is actually within the university that I currently attend (Kettering University). Recently the university has shut down the entire printer network due to a vulnerability in the software that they were using. "At this time we will unfortunately not be re-enabling printing. This decision is due to an additional security vulnerability that became known shortly after Microsoft released a patch to remedy the original vulnerability that caused the concern. There is no current patch available for this latest vulnerability." Conquest (2021). The software that they were using just happened to be made by Microsoft and used a proprietary license. So, in order to fix this problem the university could either put their trust in Microsoft to solve this problem, or use different software altogether.

If the university were to use free software instead, and if a problem like this were to arise (which would be less likely), they could fix it themselves by editing the source code and fixing it. "From a security standpoint, software freedom is a necessary precursor to security and privacy because non-free programs make it difficult or impossible to inspect and verify the programs running on a machine. Without the freedom to fix security holes

and share these changes with others, non-free software leaves computer users to fend for themselves." Theaker (2015). This goes to show the importance of trust in free software; if you can't trust the people who make the software to fix it then you can find someone else to fix it or fix it yourself. The whole premise of free software is that you do not need to trust the creators of said software, you can trust anyone who can edit it, redistribute it, and etc. including yourself.

In fact, there are entire new projects created all the time from other people's free software projects. One example that comes to mind was when a free program called Audacity added in optional user telemetry to it's program. When this was released people quickly started making forks of Audacity without the included telemetry. Things like this also happened for numerous other pieces of software as well like Firefox, OpenOffice, and even Linux.

This has an even greater effect on software as a whole because if a free software project were to be abandoned, then someone else can start it back up with no complications. This has happened many times with projects that seemingly died but later came back to life due to someone else making their own version or resuming were someone else left it. Not only that but free software has a very good history of pieces of software becoming feature complete, which means that there are no more features to add to said software, which makes it one hundred percent complete and have no need for updates. This just goes to show that you don't have to trust one person or organization with your software when you're using free software. When it comes to trust in free software, the possibilities are almost limitless.

One last critical point to using free software is reliability. When becoming reliant on software one should assess how reliable it actually is. For example, how often does it crash, or are there any bugs or glitches, or etc. It just so happens that the majority of free software is more reliable than most non-free alternatives.

Now in theory, proprietary software would seem more reliable than free software as

most proprietary software is backed by multi-million/billion dollar companies. But in practice, most free software is more actually more reliable than most proprietary software. In fact, a decent amount of large organizations and companies rely on free software as it provides more reliability than it's counterparts. "Here at EFF we rely heavily on freely licensed software to run our websites, organization, and activism campaigns. Unlike proprietary software that restricts users from tinkering with the programs they run, free software carries with it the ability to modify, study, share, and improve a program's source code." Theaker (2015). Not only does the Electronic Frontier Foundation rely on free software, but other large organizations like Red Hat, IBM, and even Microsoft rely on free software to some degree.

Free software tends to be smaller in size and usually faster then it's counterparts. The reason that this is the case is because of the fact that free software is more community driven rather than being maintained by one organization or person. Because of the fact that the source code to a piece of free software is openly available and changeable, this allows almost anyone to contribute to it. This also lets more people decide and come to a consensus when it comes to adding something to a free software project. This results in patches and fixes being spotted quickly and overall improving the efficiency of the software.

One great example of this that comes to mind is the Linux (also known as GNU/Linux) kernel (most people think of Linux as an operating system, but it's actually an operating system kernel). "There are over 10,800 lines of code added, 5,300 lines of code removed and over 1,875 lines of code modified. Every. Single. Day. That amounts to over 8 changes per second." Hartman (2016). Linux is one of, if not the biggest software project currently being worked on. Countless individuals, corporations, and organizations use and rely on Linux everyday due to it's stability, performance, and security. But the reason that this is the case is because Linux is actually free software. If Linux was not free software then the source code would not be openly available which would mean that most of the advantages of using Linux today wouldn't be as prevalent.

However, Linux is only one of the many, many pieces of free software used for it's reliability. Programs like LibreOffice, VLC, and GIMP are just a few of the free programs used by professionals and new users alike. In fact, nowadays no matter where you look you will actually see at least a little bit of free software being used. If you use Firefox, then you use free software. If you are hosting a website then chances are that your web server is running free software. Free software is used for almost anything that needs stability and reliability.

Although free software can have it's ups and downs, it still is perhaps the best choice for any computer user. The benefits of reliability, trust, and freedom provided by free software greatly outweigh the downsides. In fact, this essay was written using only free software (written using VIM and compiled using LaTeX). The fact of the matter is, there is free software available for every need no matter who you are. Whether you're a writer, an engineer, a mathematician, or anything in between, there is a piece of free software to cater to your every need.

Sadly, most people nowadays choose the "newest" and "shiniest" piece of software immediately rather than thinking and choosing something that respects their freedom instead. I recommend than when choosing a piece of software to use, that you thoroughly debate whether or not you should actually use it or not. Because it's very likely that the software you use and it's creators don't care about you or your experience using it. Freedom is worth the inconvenience.

When the four freedoms of free software are assured, freedom to study, edit, redistribute, and redistribute those changes, then the user has freedom over their computer. Without these four freedoms then free software would be nothing more than freely available code. By making sure the software you use has these four freedoms, you can make your computing experience a lot more usable and reliable.

If you want to go ahead and use free software there are plenty of ways to get started. You can go to the Free Software Foundation's free software directory

(https://directory.fsf.org/wiki/Main_Page) to find pieces of free software. You can also contact the Free Software Foundation or any other organization or individual who uses or supports free software and ask them. If you do your part and use free software, we can make the future more free, one program at a time.

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