Better Tech Alternatives Are Possible

By Daniel Tsadok

Technology over the years has assumed a much bigger role in all of our lives (greatly accelerated by COVID), and it is easy to be overwhelmed by it. Much of the reason for this is that we feel that we do not have control over our technology, and in most cases we don't. We don't have control over the Windows operating system and how it works: Microsoft does. We don't have control over MacOS: Apple does. We don't have control over Chrome (Google) or Safari (Apple) or Zoom or Office (Microsoft again) or most software running on our mobile phones, save a handful of

settings we are given access to. We don't have control over the software of virtually any of the websites we visit, including Google, Facebook, Amazon, Twitter, and so on. On the whole it can seem very disempowering.

But there is an alternative model: free and open source software (FOSS) is software that you do have control over. Free here means free as in freedom, not necessarily price. Free software is empowering, rather than disempowering. And software freedom is increasingly urgent. According to the Free Software Foundation (FSF), founded in 1985 by Richard M. Stallman, software is free (as in freedom) if it provides four basic freedoms (quoted from the Foundation's

website):

- The freedom to run the program as you wish, for any purpose.
- The freedom to study how the program works, and change it so it does your computing as you wish. Access to the source code is a precondition for this.
- The freedom to redistribute copies so you can help others.
- The freedom to distribute copies of your modified versions to others.

They summarize:
We campaign for these freedoms because everyone deserves them. With these freedoms, the users (both individually and collectively) control the program and what it does

for them. When users don't control the program, we call it a “nonfree” or “proprietary” program. The nonfree program controls the users, and the developer controls the program; this makes the program an instrument of unjust power.

In other words, software does the bidding of whoever has access to and can modify its source code. Software freedom is, therefore, ultimately about taking our power back, so that we, collectively, can ensure that software technology is in the service of the greater good. The GNU/Linux operating system (often referred to as just "Linux") is a great place to start. It is a complete replacement for Windows, with many benefits that Windows does not have.

There are hundreds of "distributions" available that you can download and install on your computer. I generally run (and recommend) the Debian distribution. Some other popular ones are Ubuntu, Fedora Core and Mint. I use Mozilla Firefox for web browsing, Thunderbird to read my email, LibreOffice for word processing and spreadsheet work, Rhythmbox to listen to my music, LMMS for music production and many more. There is also LineageOS, a free version of Android for phones*, LibreCNC for routers, and the Raspberry Pi, a tiny, minimalist computer for $35. For the technically inclined, there are thousands of software development tools, including web servers, databases, programming languages,

software libraries, and so on. Much of the internet runs on free software behind the scenes. MediaWiki, the software that Wikipedia runs on, is available to all, so in theory anyone could run their own wiki using their software. WordPress is available as free software, and several experimental alternatives to Facebook, Twitter, and the like are also available. I should also mention that while Apple's MacOS is not free, it is originally based on FreeBSD, which is.

But there is absolutely no reason for any software to remain nonfree, other than the financial interest of the companies and other authors who made it. Companies keep source code secret because they are in essence hoarding it:

by withholding the source code, they can profit more off of the program. But this one-sided relationship almost inevitably leads to abuses: the FSF documents endless abuses by nonfree software, including surveillance, limiting or removing features, preventing repair and/or onerous End-User License Agreements (EULA's). And there are many more subtle abuses. In every case we are using nonfree software on the company's terms, not ours. That is the essence of what happens where there is a lack of software freedom. This, incidentally, is why software greatly differs from other forms of intellectual property governed by copyright law: books, movies and music for the most part can't spy on you, arbitrarily delete pages

or scenes, or force you to agree to an arbitration clause before you read, watch or listen to them. Software can. By contrast, releasing software as free is simple: there are a number of Free Software licenses, including the FSF's General Public License (GPL), which provide the legal framework to do so. Authors, as part of that license, would mainly need to make the source code that they've already written available to anyone using their product.

Software freedom will grow and expand only if people are aware of it and demand it. Ideally there would be a federal law where software freedom was mandatory, which would mean that any software you buy, download or install would be required to provide the four freedoms

described by the FSF. In practice, this would mean that all software could be audited for abuses, if not by consumers then by watchdog groups, and independently altered (and improved!). It would vastly increase transparency in technology. More realistically, I would like to see more people at least aware that this alternative model exists, and protect and support the free software that we do have. Software freedom is too valuable to be limited to the domain of programmers and hobbyists.

* Google, incidentally, originally released the source code for Android (which is itself based on Linux), making it somewhat free, but has since reversed its decision and has stopped

making the source code available to the public. It also releases the Chromium browser, which is very similar to Chrome but with its source made available.