Why Software Cannot Be Free

"Why Software Should Be Free" is an essay written by renown *FOSS* (free, open source software) activist Richard Stallman, appropriately proliferated since 1995 without royalty nor compensation as is the wont of beneficent St. IGNUcius, evangelist of GNU, the Free Software Foundation, copy-left, hacker subculture, and GPL, as well as the initial architect of GNU Emacs. This essay is a crucial kernel of Stallman's greater free software philosophy and the philosophy of the GNU Project. In previous essays, Stallman outlined the four essential freedoms of free software and extolled their benefits; in "Why Software Should Be Free," Stallman further argues for free software by arguing against proprietary software protected by intellectual property law and closed source code. Stallman asserts that the restrictions of intellectual property are irrationally selfish inventions of owners who wish to make an artificially inflated profit off of their products, his essay paraphrasing the rationalizations of these owners as a petty "threat;" "I want to get rich (usually described inaccurately as 'making a living'), and if you don't allow me to get rich by programming, then I won't program. Everyone else is like me, so nobody will ever program. And then you'll be stuck with no programs at all!" Non-free software is obstructed software, Stallman argues, and a piece of obstructed software is "materially" harmful to society:

- "Fewer people use the program."
- "None of the users can adapt or fix the program."
- "Other developers cannot learn from the program, or base new work on it."

According to Stallman, these material harms doubly manifest themselves as *psychosocial* harms, deteriorating the individual's compassion towards society and damaging social cohesion by divisively discouraging the sharing of software—software that is proprietary and forbidden from unlicensed sharing, but *should* be free.

My response to "Why Software Should Be Free" is not a demolition of Stallman's ascribing material harm inflicted upon users to the current domination of software development and distribution by intellectual property licensing and unreadable, unwritable, proprietary binary executables; this harm

¹ Stallman, Richard. "Why Software Should Be Free." *Free Software*, *Free Society: Selected Essays of Richard M. Stallman*, 3rd *Edition*. Free Software Foundation, 2010.

^{2 &}quot;Philosophy of the GNU Project." *GNU Operating System.* https://www.gnu.org/philosophy/.

³ Stallman, Richard. "What is the Free Software Foundation?" *GNU's Bulletin*. February 1986. https://www.gnu.org/bulletins/bull1.txt.

is a given, though the term "psychosocial harm" is alarmist in that it declares harmful to the mind and to society what may just as easily be declared a trivial inconvenience—without any sort of empirical measurement of the "psychosocial harmfulness" of proprietary software in the form of say, its effects on the altruism of its users or the anguish on their faces when they realize that they cannot share Windows 10 software licensing keys, this claim of psychosocial harm is suspect. The core argument of my essay is that, as pleasing as Stallman's sunny vision of a society liberated by the neo-cyberpunk ubiquity of open source code and the compassionate sharing and tinkering of happily non-proprietary software is, his argument that software *should* be free is a moot, reductionist plea in spite of the greater fact that software *cannot* be free. Why?

1. Conflict of Power: Secrecy is the greatest weapon of conflict, software is now inalienable from conflict, and the human species is incredibly prone to conflict.

Information is a form of power leveraged by intelligence agencies corporate and governmental, and Vladmir Putin's FSO typewriters aside,⁴ the 21st century method of both information storage and information acquisition is the use of software—known examples being Stuxnet,⁵ the Stingray,⁶ and everything in the classified NSA ANT catalog.⁷ The open-sourcing of such software completely exposes its primary users to reprisal in that the source code may be read in order to patch vulnerabilities in attacked systems, analyzed for its origin or vulnerabilities in itself, or simply weaponized against its creators.

My point is not that such a scenario *should* not happen, but that it *could* not happen; this culture of duplicity, espionage, and geopolitical intrigue is as ancient as warfare itself, and software-propulsed violence is now as venerable as the Enigma Machine and the ENIAC. One might argue that the open-sourcing of unmanned killing machines such as the General Atomics MQ-1 Predators and the Samsung SGR-A1s lining the Korean DMZ may make for a peaceful planet where warfare is fought entirely by

^{4 &}quot;Kremlin security agency to buy typewriters 'to avoid leaks." *BBC News.* 12 July 2013. http://www.bbc.com/news/world-europe-23282308.

Kushner, David. "The Real Story of Stuxnet: How Kaspersky Lab tracked down the malware that stymied Iran's nuclear-fuel enrichment program." *IEEE Spectrum*. 26 February 2016. http://spectrum.ieee.org/telecom/security/the-real-story-of-stuxnet.

⁶ Zetter, Kim. "Florida Cops' Secret Weapon: Warrantless Cellphone Tracking." *Wired.* 3 March 2014. https://www.wired.com/2014/03/stingray/.

^{7 &}quot;NSA ANT Product Catalog." *United States National Security Agency.* 24 July 2008. https://nsa.gov1.info/dni/nsa-ant-catalog/.

machines instead of human bodies—this fantasy is besides the point; it will not happen. In a situation so dire that an individual feel it necessary to kill multiples of other human beings, the secret development of proprietary software intent on making your weapons "smarter" than that of your opponent is obligatory, and the more obfuscated and difficult to reverse-engineer, the better.

In order for Richard Stallman's utopic free software society to exist, either the necessity of secrecy in conflict would have to become false, *or* conflict itself would have to cease to exist. Do you believe that either of these conditions may be met some day? I know we all hope so, but the discovery of a 430,000 year-old skeleton of a possible human murder victim⁸ and worldwide military spending in 2012 being approximately \$1.8 trillion (that's \$18 and *eleven zeros*)⁹ reminds me to not to hope too hard.

2. Conflict of Profit: Closed, proprietary source-code is a form of profit too irresistible to release.

At the core of anti-intellectual property arguments is the fact that intellectual creations are non-rivalrous; my possession of WarCraft III does not restrict your possible possession of WarCraft III (the *sale* of WarCraft III does not reduce the *supply* of WarCraft III—WarCraft III is simply replicable lines of code and digital assets, after all). What this argument fails to account for is that the power and profit I reap from my possession of software may, in fact, be inhibited by your possession of the same software. For example:

Say I'm a videographer. My profits are directly contingent upon the capability, reliability and efficiency of the software I use to make videos, and I (and many others) would be lying to you if I told you that the total removal of the price fence of this software via open-sourcing wouldn't electrify competition such that my profits may be damaged by an influx of creators with the very same tools I possess, and I (and many others) would be lying to you more so if I denied that I would be more than willing to pay to have a more exclusive competitive edge beyond that of talent or training—protected, inevitably, by concealed source code, and developers would be thrilled to profit from this demand. The issue is not that free software is unprofitable (it's not); it's that non-free software *is* profitable. Adobe

Sala, Nohemi et al. "Lethal Interpersonal Violence in the Middle Pleistocene." *PLOS One.* 27 May 2015. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126589.

⁹ Perlo-Freeman, Sam et al. "SIPRI Yearbook 2013 - 3. Military Expenditure." *Stockholm International Peace Institute*. July 2013. https://www.sipri.org/yearbook/2013/03.

Photoshop's supremacy over digital artists over *GIMP* (GNU Image Manipulation Program), and Avid Media Composer's dominion over video production as opposed to kdenlive is due to this reality.

Should everybody have access to the same, non-rivalrous tools that you and I use? Perhaps! Society may become very meritocratic—you may or may not prefer this. *Will* everybody have access to these tools?

No.

We can scale this argument far beyond individual prosumer competition. Stallman may campaign for free software all he likes, but it is incredibly unlikely that closed-source software corporations such as Oracle, Facebook, Microsoft, Apple, and Google will respond with anything beyond feigned enthusiasm. Successful, competitive, open-source-based corporations do exist—Mozilla and Redhat to name a couple—but in fields where proprietary information is sacrosanct to existing giants, there is zero reason to expect them to make their products free as in freedom with the risk of collapsed profitability and angry shareholders.

In "Why Software Should Be Free," Stallman suggests that the software industry adopt a public funding approach, using roads as an example. Roads may be publicly funded in order to fulfill user needs, or they may be funded by toll—and nobody likes paying for toll roads, and the fact that a road is restricted by toll does not guarantee its quality. This is a false equivalency: Roads do not compete. Users of roads do not compete. Software does compete. Users of software do compete. While my paying for a piece of software does not guarantee its superiority to free software, in a capitalist economy where there is the ability to do so, users will part with their money in exchange for software that they perceive as having an advantage over competing software—free or not. One might imagine a world where all competing software is free as in freedom, voluntarily financed by the magnanimous patronage of its users without the cynicism of the market—this will not happen, as long as money has its alluring hold on the exchange of goods and services across the planet, competing businesses will always be willing to seal their source code and charge licensing fees so long as their users are willing to pay and so long as this proprietary information gives them an edge over their competitors. Even in the case of roads, one may be willing to pay a toll in order to circumnavigate exceptionally hellish traffic.

Just as conflict of power must be absent in order for free software to rise, so, too, must conflict of profit.

The error in Stallman's reasoning is that he argues for the proliferation and use of free software because it is good; it respects the freedom of its users and it's pro-social in that it encourages collaboration, learning, and experimentation. "Software *should* be free."

This completely fails to account for the likelihood that users and developers do not want what is good for them. No amount of campaigning for the sake of free software will stifle the human propensity for conflict from which the desire for non-free software blooms.

Software cannot be free.

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