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RESEARCH ARTICLE

Is Proprietary Software Unjust? Examining the Ethical Foundations of Free Software

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Abstract "Free software" is software that respects the users' freedoms by granting them access to the source code, and allowing them to modify and redistribute the software at will. Richard Stallman, founder of the Free software movement, has argued that creating and distributing non-Free software is always a moral injustice. In this essay, I try to identify the ethical foundations of Stallmanism. I identify three major trends in Stallman's thinking—libertarian, utilitarian, and communitarian—and I argue that none is sufficient to justify the radical claim that distributing non-Free software is always wrong (unless we accept extremely demanding ethical standards that Stallman himself does not consistently endorse). I recommend thinking of Stallmanism as an attempt to optimize the satisfaction of a number of core values, including freedom, cooperation, and happiness, and I stress the importance of connecting the Free software movement to other political struggles against oppression.

Keywords Free software · Open source software · Stallman · Computer ethics · Source code

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1 Stallmanism[1]

Free software (FS)[2] is, in broad terms, software that respects the users' freedoms. Specifically, it is software that is covered by a license which guarantees that users may use, modify, and redistribute the software in (practically) any way they please.[3] According to *The Free Software Definition* (Stallman 1996), FS must respect the Four Essential Freedoms:

> (Freedom 0) The freedom to run the program as you wish, for any purpose.
> (Freedom 1) The freedom to study how the program works, and change it so it does your computing as you wish.
> (Freedom 2) The freedom to redistribute copies so you can help your neighbor.
> (Freedom 3) The freedom to distribute copies of your modified versions to others.

Since access to the source code is a precondition for freedoms 1 and 3, FS distributors must make the source code accessible. Thus, all FS is also Source Code Available Software (SCAS).

FS is contrasted with *proprietary software* (PS), which (for our purposes, at least) is any software that is non-Free (in the precise sense just defined). PS is controlled by licenses that restrict the freedom of users to study, learn from, improve upon, and share the software, and these restrictions are enforced through legal measures.[4] Although doing so would not suffice to make it Free, PS distributors typically do not share their source code (doing so would make it harder to enforce the other restrictions).

Another category worth mentioning is Open Source Software (OSS).[5] OSS is defined by the Open Source Initiative in the Open Source Definition.[6] OSS also requires freedom of use, access to the source code, free redistribution, and most of the other freedoms guaranteed by FS. As Stallman notes "Nearly all open source software is free software."[7] However, OSS and FS primarily differ in their emphasis on specific *values*. While FS proponents put the ethical importance of users' autonomy

[1] Stallman is undoubtedly one of the most central and prominent figures in the Free software community, however that community has many members, and they surely do not agree with Stallman on every issue. Other prominent groups include the Free Software Foundation and GNU.org. By referring to the set of views under discussion as "Stallmanism," I run the risk of reducing the contributions of the diverse Free software community to the ideas and statements of one man. However, it is in fact the writings and speeches of *Stallman* himself that I will mainly be interrogating here. (Indeed, the link to "free software philosophy" found on the Free Software Foundation's website directs users to the essays on GNU.org, mostly by Stallman.) Therefore, it is most appropriate to refer to such views as "Stallmanism," and doing so also acknowledges that his views may not be monolithically shared within the Free software community.

[2] Throughout this essay, I will capitalize "Free" when using it in Stallman's specific sense of "Free software" in order to disambiguate it from the meaning of "free" as "costless."

[3] *Copyleft* licenses require all copies or modified copies to be distributed with the same freedoms, and may not be distributed as part of non-FS. Stallman advocates for copyleft but grants that "non-copylefted free software also exists" (Stallman 1996, p. 44).

[4] Of course, legal measures may also be used to enforce FS requirements such as copyleft, which might be viewed by FS opponents as a restriction on their freedom.

[5] For more information on the concepts of Free Software, Open Source Software, and Source Code Available Software, see (Wolf, Miller, and Grodzinsky 2009) and (Grodzinsky and Wolf 2008).

[6] (Open Source Initiative 2007).

[7] (Stallman 2016a).

at the forefront of their mission, OSS is a more "business-friendly" approach to SCAS which emphasizes the *practical* benefits of "the bazaar" (OSS) model of software development over the "the cathedral" (PS).[8] However, since the practical differences between FS and OSS are subtle and technical, and since OSS mainly preserves the same freedoms as FS, I will not consider OSS to be PS. Thus, Stallman's arguments against PS should not be taken to bear directly on OSS unless explicitly noted.

Many people who use both Free and non-Free software would agree that FS is a good thing. It's good to share with your neighbors and help other people. Maybe they would even agree that FS is ethically *better* than PS, for those reasons. However, Stallmanism is committed to a stronger claim than merely that FS is ethically good, or is ethically superior to PS. Namely, it is committed to the claim that PS is universally an injustice:

PSI (Proprietary Software Is an Injustice) Proprietary software has negative moral value; distributing proprietary software is always morally wrong.

Stallman is quite explicit about his commitment to PSI. In his keynote address at the 31st Chaos Communication Congress, he says: "So, if you have the choice to contribute to proprietary software or do nothing at all, ethically you must do nothing at all, because that way you don't do harm or wrong or injustice."[9] This makes clear that, according to Stallmanism, contributing to or distributing PS is in itself unjust, involves doing harm, and has negative moral value (is "worse than doing nothing"). Stallman offers no qualifications on such condemnations of PS, suggesting that it is PS per se that is ethically bad, and not merely PS that is bad for other reasons, such as being malware.

Indeed, Stallman emphasizes the conceptual distinction between PS and malware, that is, software that contains malicious features such as surveillance technology. However, he claims that in practice, PS tends to be, or contain, malware. More importantly, you can never *know* whether or not it contains malware because you cannot examine the source code, unlike with FS. However, since PSI does not state that only PS that is also malware is unjust, I will consider illegitimate any argument for PSI that relies on the assumption that the software contains malicious features.

Similarly, despite the potentially misleading label, FS does not have to be costless, or free of charge. Stallman defends the commercial use of FS, and even recommends charging substantial fees for FS in order to raise money for the FS community (Stallman 1996b). Hence, due once again to the generality of PSI, I will reject any argument that relies on the assumption that the software is expensive, or indeed costs anything at all.

The most difficult kind of "target," then, for PSI would be *freeware* (proprietary software that is free of charge) that helps people and contains no malicious functionality. If Stallman accepts PSI, then he must show that even harmless freeware has negative moral value.

In this essay, I will examine and critique the philosophical principles underlying Stallman's claims and arguments, and I will judge whether they provide sufficient support for PSI. I will argue that Stallman's positions do not fit neatly into any classical ethical framework, and that support for PSI is ultimately lacking.

[8] See (Raymond 2001) for discussion of the cathedral/bazaar metaphor, and arguments in favor of OSS.
[9] Cf. (Stallman 2014a) at 13:45.

2 The Philosophical Bases of Stallmanism

Stallman makes little attempt to situate his ethical values within classical ethical theories. Instead, he tends to rely (quite wisely, perhaps) on appeals to commonsense morality, and the kinds of moral injunctions that would appear obvious to children:

> I consider that the golden rule requires that if I like a program I must share it with other people who like it. Software sellers want to divide the users and conquer them, making each user agree not to share with others (Gay 2002, p. 34).

Here, Stallman endorses the golden rule, and the basic goodness of values like sharing and solidarity. Elsewhere, he appeals to what a "nice person" would do: "Of course, if you're a nice person, you're going to give a copy. That's the way to be a decent person" (Gay 2002, p. 159). He also writes: "My work on free software is motivated by an idealistic goal: spreading freedom and cooperation" (Gay 2002, p. 93).

By relying on seemingly obvious moral truisms like, *It's kind to share*, or, *It's wicked to try to control other people*, Stallman avoids entering into potentially distracting philosophical debates. This has much practical and political value. On the other hand, it makes a critical evaluation of his program slightly more difficult.

Nevertheless, Stallman does offer a number of concrete arguments in defense of FS and against PS. By examining these arguments, one can make inferences to the ethical principles that implicitly support them. In doing so, I identify three major trends in the ethical foundations of Stallmanism: (1) Libertarian; (2) Utilitarian; and (3) Communitarian.[10]

2.1 Libertarian

Perhaps Stallman's most central argument against PS is that it embodies an unjust power relation: "With software, either the users control the program (free software) or the program controls the users (proprietary or nonfree software)" (Stallman 2011). Because the programmers design the code, and the code is what gives instructions to the user's computer, it is the programmers that control the user's computing (typically with some input from the user, of course). Although the user has *some* control, namely over the features that the programmers wish to allow her to have, she cannot perform her computing functions freely because she is unable to control many aspects of the program that she may like to control, alter, or disable, and furthermore she cannot *know* what the program is doing except by its visible effects or by trusting the developers.[11]

[10] These labels are not intended to be highly loaded. For instance, I use the term "communitarian" to distance it from a loaded term like "communist," which is apt to cause confusion. Similarly, "libertarian" is not intended in the contemporary free-market-economy sense.

[11] A reviewer observes that there are different ways that a person might *know* "what a program is doing"—seeing the output of the application, seeing the source code, knowing the machine instructions themselves, etc. Access to source code is the ethically relevant sense of "knowing" here, since source code is the format that can be most easily read by programmers to understand what functionality a program has, and this facilitates the fulfillment of the Four Freedoms. Merely seeing the output of the application (e.g., seeing that a web browser has loaded a web page), is not sufficient to "know what the program is doing," since it may, for example, be recording your keystrokes and sending them to a remote server, a fact that could potentially be uncovered by studying the source code.

Thus, PS subverts the user's autonomy by making her dependent on the developers. Without the capacity to inspect the source code and verify its functionality, she must trust their word regarding such functionality. And because she is unable to modify the source code, she is only able to interact with her computer in the manner desired by the developers, and not in the manner she freely desires:

> So, if the users don't control the program, then the program controls the users, and somebody else controls the program. So that program is actually a yoke to control the users. It gives somebody else… power over those users. A non-free program is an instrument giving somebody power over the users (Stallman 2014a).

The argument that PS is unjust *because* it restricts users' freedom and embodies an unjust power relation expresses commitment to the intrinsic moral value of freedom and autonomy. This is most in keeping with a libertarian ethics, which prohibits acting in such a way as to limit the freedom of others (Mill 1859). It is also a consequence of Kant's Practical Imperative (Gregor 2006), which enjoins people to always treat others as autonomous agents.

If the basis of Stallmanism is in fact a libertarian commitment to freedom in itself, then Stallman should prefer a world with only FS even if that world is one in which the software is generally of substantially worse quality. What matters, fundamentally, would be the preservation of the users' freedom, even at the cost of convenience.

Stallman also appears somewhat libertarian in his attitude towards the law. In particular, although he morally condemns PS, he does not (to my knowledge) explicitly advocate its legal prohibition. In general, Stallman seems to support *voluntary* cooperation, and does not think that all ethical obligations should be legally imposed. Regarding the question of whether software developers should be remunerated for their work, Stallman writes: "the developer of useful software is entitled to the support of the users, but any attempt to turn this moral obligation into a requirement destroys the basis for the obligation. A developer can either deserve a reward or demand it, but not both" (Gay 2002, p. 131). This suggests that although PS is an injustice that should be eliminated from the world, Stallman would not advocate using coercive legal means to achieve this end.

2.2 Utilitarian

Stallman also goes to great lengths to extol the practical virtues of FS and the harmful effects of PS. Much of the latter criticism is dependent upon the malicious functionality that is allegedly prevalent in today's PS, and thus, although ethically important, does not directly offer an argument for PSI per se. However, some of the proposed benefits are intrinsic to the nature of FS, as opposed to PS:

(i) Users do not have to wait for or depend on the owners to make desired changes. They may collaborate with each other to improve the software.
(ii) Users do not have to worry about the software becoming arbitrarily discontinued by the owners—FS can be maintained for as long as capable users want to maintain it.
(iii) Users are not arbitrarily forbidden from using or accessing certain features of the software.

(iv) Users may study the source code and learn from it.
(v) It provides a more efficient system of debugging and feature-testing.
(vi) It promotes the sharing of knowledge, and hence the advancement of science and technology.

In general, PS restricts the freedom of the users to modify and improve the program; thus, even if the owners are highly responsive to the users' needs and requests, it establishes inherent obstacles between the ways that the users may *want* to use or develop the program, and the ways they are *permitted* to.

Stallman also discusses a number of psychological harms that are engendered by the use of PS. Most importantly, it encourages anti-social sentiments:

> Signing a typical software license agreement means betraying your neighbor… People who make such choices feel internal psychological pressure to justify them, by downgrading the importance of helping one's neighbor – thus public spirit suffers. This is psychological harm associated with the material harm of discouraging use of the program (Gay 2002, p. 125).

Stallman also mentions that the inability to modify the software one is using is demoralizing: "Giving up causes psychosocial harm – to the spirit of self-reliance. It is demoralizing to live in a house that you cannot rearrange to suit your needs" (Gay 2002, 127). On this analogy, the user is not free to "rearrange her house" (i.e., modify how her computing is being done), and thus feels demoralized.

Thus, there appear to be material and psychological benefits and harms associated with FS and PS, respectively, in virtue of their inherent qualities. However, although Stallman frequently discusses these practical effects, he often suggests that the practical or utilitarian benefits of FS are secondary to the fact that it preserves users' freedoms.[12]

Indeed, Stallman's primary criticism of the Open Source movement is that it focuses *exclusively* on utilitarian values such as code quality and efficiency, and abandons talk of user freedom:

> So, they've changed the values. For us: freedom and community. For them: code quality. They've replaced 'it is ethically incumbent on you'... with, 'it may be in your practical interest to.' So, they don't say that proprietary software is wrong. This is the big difference in substance between what they say and what we say (Stallman 2014b).

This shows that Stallman does not consider the practical benefits of FS and relative harms of PS to be sufficient in justifying his ethical beliefs, including PSI.[13]

[12] For instance, Stallman declares: "I'd rather have no software than a program that mistreats me and trashes my freedom" (Stallman 2014b), suggesting once again that PS has negative moral value, regardless of any material benefits it might confer.

[13] Stallman (2014a, 37:50) also states: "Join us in saying 'We demand freedom'… and we're ready to fight for it. We're ready to make sacrifices for it. Because sometimes freedom requires a sacrifice." This too implies that utility is less important than autonomy for Stallman, since it is mainly utility/convenience that one might be forced to sacrifice by using FS. As Stallman states shortly after the previous quotation: "You don't sacrifice convenience for convenience. But for freedom, maybe you will sacrifice convenience."

Of course, Stallman does not see the utilitarian and libertarian trends in his thinking as in conflict, since he thinks that a world of FS would both preserve freedoms and maximize pleasure. However, given the relative importance of these commitments in Stallman's discussions, one ought to conclude that Stallman would prefer a world without PS, even if permitting PS would maximize pleasure. I conclude that the libertarian strand in Stallmanism is somewhat more important than the utilitarian strand.

2.3 Communitarian

In addition to the ethical tendencies already identified, Stallman makes a number of statements that express a strong obligation to share with one's community (emphasis mine):

> I consider that the golden rule requires that *if I like a program I must share it with other people who like it***.** Software sellers want to divide the users and conquer them, making each user agree not to share with others (Gay 2002, p. 34).

> Computer users should be free to modify programs to fit their needs, and free to share software, *because helping other people is the basis of society* (Gay 2002, p. 18).

> *The fundamental act of friendship among programmers is the sharing of programs*; marketing arrangements now typically used essentially forbid programmers to treat others as friends (Gay 2002, p. 35).

> Now, for beings that can think and learn, sharing useful knowledge is a fundamental act of friendship… Friends share with each other. Friends help each other. This is the nature of friendship. And, in fact, the spirit of goodwill—the spirit of helping your neighbors voluntarily—is society's most important resource (Gay 2002, p. 166).

Stallman emphasizes that the spirit of sharing, and especially sharing of software, was integral to early communities of programmers and is part of a "hacker's ethic":

> Cooperation was our way of life. And we were secure in that way of life. We didn't fight it. We didn't have to fight for it. We just lived that way (Gay 2002, p. 159).

> Copying all or parts of a program is as natural to a programmer as breathing, and as productive. It ought to be as free (Gay 2002, p. 36).

These statements entail that voluntary cooperation is natural, beneficial, and productive, and any attempt to obstruct such cooperation (such as exists in PS) is a moral harm. However, in one instance at least, Stallman goes so far as to claim that sharing is not only a moral good, but an *obligation*. This indicates a more strict communitarian trend in Stallmanism, one which is perhaps in tension with its libertarian-individualist tendencies.

2.4 Summary

I have identified three major classes of ethical justification in Stallman's works: one that places intrinsic moral value on freedom; one that emphasizes the practical benefits and harms of FS and PS, respectively; and, one that stresses the importance of community and cooperation as intrinsically good and a primary source of moral value. Although it is likely that Stallman sees these justifications as dovetailing, they are logically independent, and can theoretically come apart. I have argued that if freedom and utility were to come apart, Stallman would likely prefer freedom. In the next section, I will raise problems for each of these three patterns of justification for PSI.

3 Questioning the Philosophical Bases of Stallmanism

3.1 Libertarian

The libertarian justification for Stallmanism holds that PS is unjust because it restricts users' freedoms. But there are two strong criticisms one can make of this justification:

3.1.1 It's Not Always Wrong to Restrict Another Person's Freedom, or Sacrifice One's Own

Even if freedom has some intrinsic moral worth, surely it's not the *only* thing that's good. People often seem willing to sacrifice some of their freedoms, either to obtain others or to obtain some perceived benefit, and doing so does not always seem wrong. For instance, in promising to participate in a monogamous relationship, such as a traditional marriage, people sacrifice their freedom to engage in extra-marital affairs in order to obtain the delights of marriage, and the freedom to enjoy a long-term relationship with a single partner.

Since freedom is not an absolute notion, trading some freedoms in exchange for others should be ethically unproblematic, even given a firm commitment to freedom in general.[14] This is, essentially, the basis of the social contract. By sacrificing my freedom to take others' possessions, to not pay taxes, etc., I get to enjoy the benefits of peaceful social living, which guarantees me an entirely different set of freedoms.

It also seems justifiable to sacrifice one's freedom in order to obtain some material benefit. Indeed, Stallman himself accepts the validity of such a "bargain." Although highly critical of the current legal framework of copyright, Stallman (2002) does endorse a more limited form of copyright, one that serves the purpose stated in the U.S. Constitution, that is, "to promote the Progress of Science and useful Arts." Stallman does not reject the "copyright bargain" itself, implying that he is willing to accept limitations on freedom (namely, the freedom to modify or commercially redistribute something) [15] in order to obtain some

[14] This point seems to be acknowledged by Stallman: "…just saying 'I believe in freedom' is vacuous. There are so many different freedoms you could believe in, and they conflict with each other, so the real political question is: Which are the important freedoms, the freedoms that we must make sure everybody has?" (Gay 2002, p. 165).

[15] Stallman does support the unrestricted right to redistribute verbatim copies (i.e., sharing). See (Gay 2002, p. 87).

material benefit (namely, the enjoyment of more creative works). An absolute commitment to freedom as the highest, or sole, good would make such bargains unacceptable.

It remains unclear on what terms such a bargaining away of one's freedoms would be considered ethical for Stallman. However, this raises problems for justifying PSI: if it's not *always* wrong to trade away one's freedom in exchange for some material gain, why is it always wrong to trade away the Four Essential Freedoms in exchange for the perceived benefits of PS?

One response might be that a limited "copyright bargain" is acceptable because it is the best method of promoting science and art. However, so the response goes, there is no comparable justification for PS because we could easily enjoy the benefits offered by PS *without* trading away our freedoms (or doing so for only a very limited time), namely by not enforcing the copyright restrictions. If enforcing PS rights is *not* the best way to promote software production, then we are trading away our freedoms at a high cost, for little value. Since Stallman sees the PS model as inefficient and costly, he could consistently accept the copyright bargain in some contexts but reject the existence of (long-term) proprietary ownership of software.

However, if the line of justification currently under consideration is one that emphasizes the moral value of freedom, shouldn't it be up to the *buyer* whether or not she considers PS to be a good bargain? In a free society, shouldn't people be ethically licensed to trade away some freedoms in exchange for the shiny features offered by PS, even if Stallman thinks they are getting a bad deal? PSI would entail that such a transaction is, by its nature, morally unacceptable.

A response to this line of argumentation might be the following: The average computer user does *not* bargain away her freedom in exchange for some gain when she uses PS, because she does not *know* that she is giving up any freedoms. To voluntarily trade certain freedoms is one thing; to have those freedoms unknowingly restricted is another. Most common users do not understand the freedoms that they are abandoning by using PS, thus they are not consenting, in an informed way, to the sacrifices that they are making.

However, although it is true that users often are *not* aware of the ways in which their freedom is being restricted, this response does not go far enough to justify PSI. If one expert programmer were to write a program and sell it as PS to another expert programmer, that would still be considered wrong by Stallman and PSI, even if the buyer had a deep understanding of the freedoms she was sacrificing.

Thus, a commitment to the intrinsic moral value of freedom does not itself justify PSI. There seem to be instances where a person may voluntarily and ethically bargain away her freedom for some gain, and Stallman himself accepts the fairness of such arrangements in some contexts. The question then remains why such bargains should be always impermissible in software. In practical terms, PS *does* typically restrict users' freedoms without them knowing, and often in malicious ways, so this theoretical defense of PS does not seriously undermine Stallman's political activism, but we are more interested in the general philosophical issue.

3.1.2 Proprietary Software Restricts Users' Freedom Only in the Sense That It Fails to Offer Them Other Freedoms

Stallman claims that proprietary software *restricts* users' freedoms. But what freedoms are these? One is the freedom to redistribute the program. But the supposed victim of the developers' control did not *have* this freedom before the software was released at all. Therefore, we cannot say that distributing PS restricts any freedoms that existed *before* the release of the software. At most, we can say that developers of PS restrict users' freedom insofar as they fail to share information that they could easily share and that would provide the user with even greater freedoms. But does failing to provide additional freedoms that could easily be provided count as *restricting* the freedom of those who are affected?

One way to give an affirmative response would be to hold that software users have a *right* to have access to the source code. But such a right would seemingly conflict with the owner's right to distribute the source code or not, as she sees fit. Although keeping the source code secret might be *wrong*, Stallman does not argue that developers should not have the *right* to distribute PS. Thus, it seems that users have an ethical *expectation* of access to the source code, though not a right to it.

By distributing a piece of software, I may provide users with new benefits and freedoms (for instance, Freedom 0 is often provided even by PS), and I do not take away any of their existing benefits or freedoms. By making the software proprietary, I choose not to offer other benefits and freedoms that could easily be offered. But how can I be said to *restrict* the user's freedom by offering her a new, limited freedom, while not taking away any of her existing freedoms?

This argument, inspired by the Lockean "Pareto-superiority" defense of intellectual property rights (Moore 2008), is problematic for Stallmanism. Are we required to *respect* other people's (existing) freedoms, or to *maximize* their freedoms? Stallman's views often suggest the latter, but such a requirement seems overly demanding.

However, he might argue that PS does actually *restrict* users' freedoms because, like an addiction, it makes users dependent on the program by enticing them with tempting features and thereby *creating* in users the desire or need to use the program to satisfy their life goals.[16] Once this need and dependency has been created, the user will be affected by the lack of the Four Freedoms, and thus not granting her those freedoms could be considered a moral violation.

Thus, one could reply to the Lockean-style argument by claiming that although PS does not take away any pre-existing freedoms, by enticing users with superficially tempting features, it creates a dependency in them and engenders a desire for new freedoms which it is explicitly intended to restrict.

I do not find such reasoning persuasive. Offering someone a limited freedom when offering more freedom would be just as easy seems like a selfish and anti-social thing to do. Nevertheless, offering a limited freedom, while taking none away, should not be described as limiting or restricting another's freedom. Furthermore, analogies to physically addictive substances are not sufficient to motivate the point.

[16] Stallman (2014a) does explicitly compare giving away PS to giving cigarettes to children.

3.2 Utilitarian

If ethical actions are those that maximize pleasure, and we assume that FS maximizes pleasure by not restricting any potentially desirable uses, then we seem to find justification for PSI in utilitarianism. Releasing PS does relative harm by not maximizing the enjoyment of users by making the software Free.

One could, of course, take issue with the empirical claim that FS maximizes utility. However, it is difficult to do so within a narrow, act-utilitarian framework. Since proprietary restrictions serve only to limit the ways that users can enjoy software, it is hard to see how enforcing them could promote utility of a specific piece of software, except, of course, for the software owner herself. But her enjoyment is likely to be outweighed by the relative loss of enjoyment the users experience as a result of the software not being made Free.

It is within rule-utilitarianism that one finds a fairly plausible defense of PS. Following Adam Moore (2008), one could argue that offering limited control to copyright owners could provide them with economic incentive to produce more creative works, thus increasing the benefits for society in the long run.

This justification for *limited* copyrights is in fact accepted by Stallman, and he claims it is enshrined in the provisions for copyright in the U.S. Constitution. However, he does hold that people should have the unrestricted right to distribute non-commercial verbatim copies. This suggests, somewhat surprisingly, that only Freedoms 0 and 2 are considered absolute freedoms by Stallman—in his (tentatively) preferred system of software copyright, Freedoms 1 and 3 would be bargained away for a brief period of time (roughly three years, but ideally determined experimentally; see (Gay 2002, p. 87)) in order to incentivize programmers to make more software, and thereby benefit society.

However, *contra* the standard rule-utilitarian justification for substantial copyrights, Stallman would argue that since a society that used only FS (perhaps with highly limited, temporary copyright) would maximize utility relative to a society that used PS, rule-utilitarianism entails that it is wrong to use PS in general, since doing so conforms to a rule that fails to maximize utility. This would provide a solid justification for PSI.

However, this justification is vulnerable to the "demandingness" objection to utilitarianism (Kagan 1984): if utilitarianism requires *maximizing* utility in all my actions, then it seems to place extremely strong moral demands on people that can hardly be lived up to. It also erases the distinction between supererogatory goods and moral duties (McConnell 1980).[17] One might think of distributing FS as a kind of charitable act, since one is giving away the source code for zero cost. But many people consider charity supererogatory. Thus, the rule-utilitarian defense of PSI appears to be more demanding than commonsense morality permits. This seems especially problematic given Stallman's frequent appeals to common sense.

Furthermore, a commitment to such a strict form of utilitarianism seems incompatible with some of Stallman's other beliefs. For instance, Stallman does *not* say that if you have some software that might be of use to people, you *must* release it: "You should also have the freedom to make modifications and use them privately in your own work or play, without even mentioning that they exist" (Gay 2002, p. 43).

[17] (Chopra and Dexter 2008, p. 69) note this criticism as well.

Stallman respects the rights of individual users or companies to modify software in their own way and keep it a secret. What is objectionable to Stallman is *distributing* software as PS.[18] So, in brief, you may keep your software to yourself, but if you share or distribute it, you must also share the source code.

This permissiveness towards not distributing software *at all* is incompatible with the highly demanding form of utilitarianism used to justify PSI. If someone has developed some software that could be of use to others, strict utilitarianism would demand that they release it as FS, since doing so would maximize utility. As already witnessed, Stallman does occasionally endorse such a demanding view: "I consider that the golden rule requires that if I like a program I must share it with other people who like it" (Gay 2002, p. 34). This seems to suggest that if I merely *have* a program that is of interest to others, I am obligated to distribute it as FS.[19]

It is somewhat unclear, therefore, where Stallman stands with respect to the obligatory nature of sharing. If we accept the demanding version of Stallmanism, then we have a strong justification for PSI, but a perhaps unrealistically demanding ethical theory that implies that sharing is, in general, obligatory. On the other hand, if we accept the weaker version, which prohibits the distribution of PS but permits *non*-distributed software (software kept only for personal or internal use), we are left wondering why utilitarianism *should* respect any programmer's wish to keep her code to herself. If social utility obligates the programmer to share the source code *if* she shares the program, why is she absolved of this obligation if she decides to not even let people *use* the program at all? It seems like the distributor of freeware, e.g., is at least being generous enough to let others *use* the software for zero cost, even though she doesn't go so far as to give them the source code. The claim that it would be ethically preferable for her not to distribute the program *at all* seems hard to justify on utilitarian grounds.

3.3 Communitarian

The communitarian trend in Stallmanism is similar to the demanding rule-utilitarian outlook just critiqued. In particular, it seems to go beyond the libertarian-individualist tendencies in Stallmanism (which permit non-distributed software) in making the sharing of software (with source code, of course) an ethical *obligation* (though perhaps not an enforceable one). As already mentioned, Stallman occasionally states that he is

[18] As a reviewer notes, Stallman also objects to Service as a Software Substitute (SaaSS)—that is, services to which users may send their data in order to do computations that they could, in principle, have done with their own computers and software. This does not involve the distribution of PS, but is still considered unethical by Stallman for analogous reasons, in particular that it involves sacrificing the users' freedom and control over their own computations (see (Stallman 2016b)). Thus, distributing PS is not the *only* source of computational harm, but this does not weaken the point that Stallman does not explicitly condemn PS that is neither distributed nor offered as SaaSS.

[19] A reviewer notes a further problem: *if I am ethically required to share my software with anyone who likes it, or might like it, doesn't this present me with an impossible obligation? For how am I to know who would like the software? Do I have a duty to seek out every person who likes, or might like, the software?* However, I believe a more charitable interpretation of Stallman's views would be that there is an ethical obligation to make the source code *available*, in a sufficiently accessible way, to anyone who is interested. I interpret *sharing* of source code in this sense—packaging the source code with the software, or otherwise making it available to copy in an accessible way.

"required" by the golden rule to share software that he likes with others who might like it. He also states that it is wrong for authors to restrict access to their work in order to gain profit: "Specifically, the desire to be rewarded for one's creativity does not justify depriving the world in general of all or part of that creativity" (Gay 2002, p. 38).

Although this kind of thinking has much in common with the demanding rule-utilitarianism previously discussed, it differs in its emphasis on the values of sharing, friendship, and community: "Computer users should be free to modify programs to fit their needs, and free to share software, because helping other people is the basis of society" (Gay 2002, 18). Also, unlike the utilitarian arguments, Stallman's communitarian ideals suggest that given a forced choice, he would prefer a society of mutual aid and cooperation, even if a society that permitted PS would increase utility.

Since, like the previous one, this approach to justifying PSI entails that sharing is a moral obligation, it too is vulnerable to the criticism of being overly demanding, and of erasing the distinction between supererogatory goods and duties. I will not repeat these criticisms, which are just as potent against this strand of Stallmanism.

Stallman also occasionally attempts to justify PSI by appealing to the fact that sharing and cooperation are *natural* for programmers and for people in general, and it is wrong to try to interrupt a natural activity: "Copying all or parts of a program is as natural to a programmer as breathing, and as productive. It ought to be as free" (Gay 2002, p. 36). However, one might question the legitimacy of this claim. First, as is well known, the fact that something is natural does not entail that it is moral. Stallman's opponent might argue that all this shows is that programmers are naturally inclined to theft. Second, one may question whether the inclination to share *is* natural to all programmers. Suppose there is a programmer who naturally prefers isolation and self-reliance over cooperation. To maintain PSI, Stallman would have to claim that it is best for this programmer to act *against* her own asocial nature. Note that I am not claiming that programmers *are* by nature selfish or isolationist. Rather, I am simply noting that the communitarian aspect of Stallmanism fails to do justice to the variety of temperaments and personalities that might exist within the programming community or for humans in general. It is thus in tension with the "to each his own" attitude that is suggested by focusing on individual *freedom*, as Stallman often does. We can easily agree with Stallman that friendship and mutualism are admirable qualities, but if I am really ethically *free*, why should I be morally *obligated* to practice friendship with my peers? Stallman tacitly acknowledges this when he apparently grants ethical license for people to use non-distributed software.

Finally, a commitment to cooperation and friendship as intrinsically morally good does not directly justify PSI. Analogous to the case of freedom, we can conceive of contexts in which an agent might wish to "bargain away" some kinds of cooperation with others in order to obtain some *other* kinds of cooperation. For instance, it is easy to imagine some PS that promotes cooperation and community—perhaps, a photo-sharing application. Although the software license itself is intended to frustrate cooperation, people might wish to accept that form of anti-social behavior in order to obtain the cooperative benefits of the software's other functionality. The users could certainly request that the owner make the software Free, but overall the software *does* promote cooperation (by hypothesis), though

not of course in the way that it is distributed. Thus, unless we are committed to some duty towards cooperation-*maximization*, it does not appear that giving intrinsic moral worth to cooperation and community is sufficient to justify PSI.[20]

4 Where *Should* We Locate the Ethical Foundations of Stallmanism?

I have analyzed three major trends in Stallman's arguments in defense of FS and PSI: libertarian, utilitarian, and communitarian. For Stallman, these outlooks are simply in harmony; the best, happiest society for all is one in which people freely cooperate out of a spirit of friendship, which is natural to humans. However, in philosophical terms, these ethical foundations are non-equivalent and can be in tension. I have tried to draw out such tensions and consider how Stallman would react in hopes of determining the relative importance of the three forms of justification. In fact, Stallman emphasizes different reasons in different contexts, and it isn't clear whether all of his statements and arguments are consistent.[21] However, given the fact that Stallman is also a political activist, and not simply an ethical theorist per se, one must approach such issues with a good deal of charity.

Evaluating moral dilemmas within Stallmanism involves a kind of reflective equilibrium, in which one tries to optimize the satisfaction of one's core values. For Stallman, these are friendship, cooperation, freedom, solidarity, *and* happiness/utility. By acknowledging the legitimacy of the copyright bargain, Stallman demonstrates that he is not fanatically fixated on freedom/sharing for its own sake. However, he also recognizes the ease with which today's citizens are willing to abandon their civic freedoms, and thus goes to great pains to emphasize its fundamental importance for a prosperous society.

Given this ethical stance, it is hard to justify some of Stallman's more radical claims, such as PSI, except in the context of his broader political activism. I conclude that PSI is not, strictly speaking, justified by the principles behind Stallman's arguments.[22] Stallman's radical statements and quasi-religious attitude towards FS serve to draw attention to the issues and raise people's consciousness, thus promoting the proliferation of FS and FS ideas. Jan Corazza (2016) criticizes Stallman on this point, claiming that he ends up promoting individualism and "lifestyle-ism" rather than broader social change, but it seems clear that Stallman's extreme lifestyle approach is primarily

[20] Stallman's arguments at times imply, in effect, that the sole moral criterion for a piece of software is the license under which it is distributed.

[21] In one section, Stallman offers all three kinds of reason in succession:

> What does society need? It needs information that is truly available to its citizens—for example, programs that people can read, fix, adapt, and improve, not just operate. But what software owners typically deliver is a black box that we can't study or change.
>
> Society also needs freedom. When a program has an owner, the users lose freedom to control part of their own lives.
>
> And above all society needs to encourage the spirit of voluntary cooperation in its citizens. When software owners tell us that helping our neighbors in a natural way is 'piracy,' they pollute our society's civic spirit (Gay 2002, pp. 49–50).

[22] This is not meant to imply that Stallman does not offer strong reasons for *preferring* FS over PS.

intended to raise awareness about the issues that matter: "If I don't show that I take my principles seriously, I can't expect anybody else to take them seriously" (Gay 2002, p. 135).

Nevertheless, Corazza is correct to point out that Stallman does not make much effort (in his published works, at least) to connect the FS movement to broader political struggles, and in particular class struggle and anti-capitalist struggle.[23] According to Stallman, "Free software combines aspects of capitalism, aspects of communism, and aspects of anarchism… The capitalist aspect is that everybody is welcome to start a business… and make money, as long as it respects the freedoms of others" (Stallman 2013). Although Stallman frequently criticizes modern global capitalism in passing and the greedy, corrupt nature of Western democracies, as well as making strong polemics against the ubiquity of surveillance, he does not openly attack capitalism itself. However, this is rather surprising, given his ethical principles. Stallman would consider it "subjugation" for a person to distribute enjoyable PS at zero cost—thus, he is clearly sensitive to indirect and systemic forms of exploitation. And yet his writings contain no critical comments on the system of wage labor itself, which clearly imposes asymmetric power relations and involves exploitative elements, whether or not one considers it exploitation per se.

Perhaps this political neutrality, or plurality, is a strategic move for Stallman—it welcomes people with differing political views into the FS community. However, outside of the context of a broader critique of other forms of exploitation, Stallman's philosophy begins to appear somewhat fanatical. Why fetishize *software* freedoms above all others?[24] If what matters are the core values of freedom, friendship, and cooperation, then the struggle for FS must be considered in the context of other social struggles against oppression. It might even turn out that in order to fight one kind of important struggle, we will need to use or distribute PS. Stallman cannot consistently rule out such a possibility a priori without betraying the generality of his core values and privileging software freedom above all else. This suggests that the claim that PS is always an injustice is not strictly supported by Stallman's own core principles, and is best considered in connection with Stallman's political activism towards an ideal society.

5 Conclusion

It is not easy to easy to pin down the foundations of Stallman's ethical philosophy from his published writings and speeches. Different values and forms of justification are appealed to or emphasized in different contexts, and it isn't clear that one kind of value

[23] The essay "Copyright and Globalization in the Age of Computer Networks" in (Gay 2002) is a notable exception. However, although Stallman criticizes "the tendency to give business power over the public and governments" (Gay 2002, p. 146), he rarely engages in criticism of capitalist production per se. Even on his personal website, https://www.stallman.org, Stallman (2017) criticizes "the plutocratic type of capitalism," but not capitalism or wage labor per se.

[24] I am not suggesting Stallman should be expected to take on all forms of exploitation—it is fine to apply his energy where it is most useful. However, his comments on the matter appear to express a positive attitude towards capitalist production and its relation to FS. I am claiming that such an attitude is in tension with the ethical principles underlying FS.

(e.g., freedom vs. utility) is ultimately dominant or fundamental. In this essay, I have identified three major trends in Stallman's thinking, and I have argued that none is sufficient in itself to support the radical claim that distributing PS invariably has negative moral value, unless we accept extremely demanding ethical standards. I suggest that we think about Stallmanism as an attempt to achieve an optimal balance amongst a set of core values, the most important of which are freedom, cooperation, and happiness. However, given a commitment to such values, it is crucial to connect the struggle for FS to broader political struggles, and not uniquely privilege *software* freedoms above all others.

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