

## SHOW US THE CODE

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Very rarely does the following passage appear in the copyright notice of a printed book:

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation Licence, Version 1.1 or any later version published by the Free Software Foundation...

The book in question is a biography of free software programmer and activist, Richard Stallman, and (as the epilogue recounts) the unusual arrangement under which it is published is due to his stern insistence.<sup>1</sup> The notice means what it says: anyone is free to copy, change and disseminate the book, provided they obey a set of rules, of which the most important are that they must reproduce invariant portions of the text which protect the recognition of its authors, and that any modified or copied text be subject to the same licence.

As Sam Williams’ book makes plain, Stallman is an extraordinary figure—a programmer of surpassing skill, capable of matching the output of entire commercial programming teams with his spare, elegant code; and a tireless, principled and uncompromising activist who initiated and fostered the notion of a data commons. Stallman not only developed the conceptual details of what has become known as ‘copyleft’ (it is sometimes indicated with a reversed © symbol) with licences that cover software and documents, but he also

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<sup>1</sup> Sam Williams, *Free as in Freedom: Richard Stallman’s Crusade for Free Software*, O’Reilly: Sebastapol, CA 2002.

laboured to produce the fundamental elements of a free software operating system. It was Stallman who initiated and led work on a free software version of Unix, which he dubbed GNU ( a typically recursive programmer's joke, this, GNU standing for 'GNU's Not Unix'). The extraordinary ambition to realise a free software operating system was realised using elements of GNU alongside a kernel, originally written as a stop gap, by Linus Torvalds, and developed into the Linux system which, thanks to the efforts of thousands of collaborators internationally, has become a threat to Microsoft's monopoly.



Richard Stallman (centre). Photo by Roberto Brenlla

The impetus for his work came out of the tightly knit and collaborative academic hacker community of which Stallman was a part. Stallman studied mathematics at Harvard and while doing so spent much time at the computing centre at MIT before moving there officially for postgraduate study. There he found a group of brilliant, dedicated hackers who exchanged information freely, and worked within egalitarian and informal structures. Openness was central to their ethos, and was defended vigorously and

practically (for instance, by breaking into offices where terminals had been left idle behind locked doors). Stallman even opposed the use of passwords.

In the 1970s these programmers would freely exchange and tailor the pre-compiled source code of programs, improving and customising it to suit their requirements. As the use of computers spread, and software became a valuable commodity, companies copyrighted their programs and withdrew the source code from the public domain. For programmers like Stallman, this was an assault on what they most cared about, as programs that they had worked on for years were snatched from their grasp, in an act analogous to the enclosure of common land. Stallman swiftly arrived at a strong position opposing this development: he would not use software that he was not allowed to alter or give to others. Software, he claimed, which is not scarce in the way that material goods are, should be likened to recipes; to stop people swapping them or tinkering with them to suit their tastes, was authoritarian, morally wrong, and a pollution of once open and collaborative social relations.

Stallman argues that software companies conceive of the rules for using software only from the perspective of maximising profit, whereas the community of hackers had a quite different perspective, which led them to ask: 'what kind of rules make possible a good society that is good for the people in it?' [112] The idea of free software is not that programmers should make no money from their efforts (indeed, fortunes have been made from it), but that it is wrong that the commercial software market is set up solely to make them as much money as possible.

Free software has a number of advantages. It allows communities of users to alter code so that it evolves to become economical and bug-free, and adapts to rapidly changing technologies. It allows those with specialist needs to change code to meet their requirements. Given that programs must work in connection with each other, it is important for programmers to be able to examine existing code, particularly that of operating systems (indeed, many think that one of the ways in which Microsoft has maintained its dominant position has been because its programmers working on, say, Office have privileged access to Windows code). Above all, it allows access to programs

based on need rather than the ability to pay. These considerations, alongside widespread revulsion at the greed and cynicism of the software giants, has attracted many people to free software, and effective communities offering advice and information have grown up to support users and programmers.

This free exchange of software has led some commentators to compare the online gift economy with the ceremony of potlatch, in which someone gives extravagant presents or even sacrifices goods to raise their prestige.<sup>2</sup> Yet there is a fundamental distinction between the two, since the copying and distribution of software is almost cost-free (or at least after the large outlay for a computer and networking, the extra costs of copying, uploading and downloading a program are generally tiny). If a programmer gives away a program that they have written, the expenditure involved is the time taken to write it, and any number of people can have a copy without the inventor being materially poorer.

The free software communities are generally comprised of privileged, technically adept people. Despite its rapid growth, the Internet itself is currently accessible to a mere 5 per cent of the world's population who are geographically concentrated, well-educated and wealthy.<sup>3</sup> Even so, their activities offer a new model of labour and consumption, offer opportunities for those who can gain Internet access free through educational establishments or cheaply in libraries, and have opened up opportunities for activist groups, such as the Sheffield-based Redundant Technology Initiative who use donated 'redundant' computers (a few years old) and free software to come close to their ambition of providing 'no cost technology'.<sup>4</sup>

An ideological tussle has developed over this form of software development between idealists (represented by Stallman) who really want software to be free, and the pragmatists (represented by Eric Raymond) who would rather not frighten the corporations, and prefer the name 'Open Source'. The term 'free', argues Raymond, is

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<sup>2</sup> For the argument that the two are similar, see Richard Barbrook, 'The High-Tech Gift Economy', in Josephine Bosma et al, eds., *Readme! Filtered by nettime: ASCII Culture and the Revenge of Knowledge*, Autonomedia, Brooklyn, 1999.

<sup>3</sup> See the Nua Internet Surveys: <http://www.nua.ie/surveys>

<sup>4</sup> RTI's site is at [www.lowtech.org](http://www.lowtech.org)

associated with hostility to intellectual property rights or even with Communism. The Open Source initiative wants to replace those associations with ‘pragmatic tales, sweet to managers’ and investors’ ears, of higher reliability and lower cost and better features.’<sup>5</sup> For Raymond, ‘Open Source’ software such as Linux is produced under something approaching free-market conditions in which selfish agents maximise their own utility and so produce a self-correcting, spontaneous order. Raymond claims that the system is set up to maximise productivity, with programmers competing to make the most efficient code, and that ‘the social milieu selects ruthlessly for competence’.<sup>6</sup> While programmers might appear to be selflessly giving gifts, their altruism masks the self-interested pursuit of prestige in the hacker community.<sup>7</sup>

In complete contrast, others have pointed to the ‘Communism’ of such an arrangement. Although free software is not explicitly mentioned, it seems to be behind the argument of Michael Hardt and Antonio Negri’s book, *Empire*, that the new mode of computer-mediated production makes cooperation completely immanent to the act of labour. People need each other to create value, but no longer necessarily need capital and its organisational powers. Rather, it is communities that produce, and as they do so, reproduce and redefine themselves, and the outcome is no less than ‘the potential for a kind of spontaneous and elementary communism’.<sup>8</sup> The situation here is certainly one that Marx would have found familiar: that the forces of production have come into conflict with the existing relations of production.<sup>9</sup> It contains elements that are associated with both communism and the free market, for goods are free, communities of developers altruistically support users, and openness and collaboration are essential to the continuing function of the system. Money can be made but need not be, and the whole is protected and sustained by a hacked capitalist legal tool, copyright.

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<sup>5</sup> Eric S. Raymond, *The Cathedral and the Bazaar: Musings on Linux and Open Source by an Accidental Revolutionary*, O’Reilly, Sebastapol, CA 1999, p. 206.

<sup>6</sup> Ibid., p. 71.

<sup>7</sup> Ibid., pp. 64-5.

<sup>8</sup> Michael Hardt / Antonio Negri, *Empire*, Harvard University Press, Cambridge, Mass. 2000, pp. 294, 304.

<sup>9</sup> This point is made by Richard Barbrook in his controversial nettime posting, ‘Cyber-Communism: How the Americans are Superseding Capitalism in Cyberspace, September 1999.

The result is a widening digital commons: Stallman's General Public Licence uses copyright to lock software into communal ownership. Since all derivative versions must themselves be 'copylefted' (even those that carry only a tiny fragment of the original code), the commons grows, and free software spreads like a virus—or in the comment of a rattled Microsoft executive, like cancer.<sup>10</sup>

When Williams asks Stallman about his wider political convictions, he replies:

I hesitate to exaggerate the importance of this little puddle of freedom. ... Because the more well-known and conventional areas of working for freedom and a better society are tremendously important. I wouldn't say that free software is as important as they are. It's the responsibility I undertook, because it dropped in my lap and I saw a way I could do something about it. But, for example, to end police brutality, to end the war on drugs, to end the kinds of racism we still have, to help everyone have a comfortable life, to protect the rights of people who do abortions, to protect us from theocracy, these are tremendously important issues, far more important than what I do. I just wish I knew how to do something about them. [73]

(In fact, a look at Stallman's homepage shows that he is trying to mobilise public opinion over a wide range of political issues.)<sup>11</sup> Beyond that 'puddle', Stallman's ideas do have wider resonance. As music, films, images and texts have become digitised, lifted from their material substrata of plastic or paper, many of the considerations that apply to free software come to bear on them. The issue again is not just about copying but altering. In NLR 13, Sven Lütticken eloquently described the advantages of intellectual 'theft'. Online, the challenge to copyright are considerable as people swap files using peer-to-peer programs that sidestep centralised surveillance and control. This free exchange of cultural goods is pursued not merely for consumption but to provide material for active alteration, obviously in music where the sampling and mixing of diverse sources is

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<sup>10</sup> Steve Ballmer's remarks were made to the *Chicago Sun-Times* in June 2001; see Glyn Moody, 'Free Software Survives Downturn', *The Guardian*, online section, 10 January 2002.

<sup>11</sup> [www.stallman.org](http://www.stallman.org)

common but also in video with 'fan cuts' of TV shows and films. Sometimes such appropriation and alteration are undertaken with subversive intent, for instance in the copying of official websites for satirical purposes such as those sponsored by the group RTMark. In the world of online art, attempts to claim exclusive ownership of works or sites have often been met with the practical political act of hacking and illicit copying.

Stallman himself distinguishes between what he calls functional works (software tools, manuals and reference guides, for example), scientific and historical works, and art works; in his view, all should be freely copied and distributed but the latter two should only be modifiable if their authors assent. [71] Stallman, whose defence of free software is in essence a moral one, has no doubt that free distribution should apply equally to cultural goods:

The number of people who find Napster useful ... tells me that the right to distribute copies not only on a neighbour-to-neighbour basis, but to the public at large, is essential and therefore may not be taken away. [65]

In a now well-known formulation, Stallman says of free software: 'Don't think free as in free beer; think free as in free speech.' [131] Yet in fact much free software is actually costless, or very nearly so; likewise, swapped files containing music, pictures or video cost little to download. While it is often illegal to do so under current copyright law, it is unclear whether the law is enforceable, any more than it was over the copying of music to cassette tapes.

Many of the advantages that work in favour of free software also apply to other goods, particularly but not solely those in digital form. The argument about the efficiency that results from rapid peer review is of considerable importance. As K. Eric Drexler pointed out in a pioneering essay on the potential of hypertext, conversation on paper develops slowly (certainly in academic circles) due to the time needed for review, resubmission, publication and distribution, and the same is true of any riposte that may be published. What is more, the final result remains unchanged and isolated from the comments it has provoked. Hypertext allows for rapid revision, collapses the time-scale involved in

getting a response and can link all related texts together.<sup>12</sup> Free copying, linking and alteration are essential to this process. With cultural works, the right to alter is an issue of free speech, as becomes completely clear when artists are sued for altering images of Barbie or using company logos or even invoking company names. Corporations set out to give their brands and images wide and powerful cultural currency, and also to control their use. To be unable due to the threat of litigation to use the image of Mickey Mouse or Ronald McDonald is a fundamental form of cultural censorship. Equally, the copying and alteration of online art works by other artists has been very important to the development of much Net art, 'theft' being seen as a form of flattery and a contribution to the development of a larger, collective project.

Copyleft has major implications for the Left: to ask whether it should be the widest possible access and rapid peer review or profit maximisation that should govern the rules under which its writings and other cultural goods are produced is a question that almost answers itself. Consider the example of the NLR itself: currently, it is protected by copyright and raises money through subscriptions, bookshop sales and fees from photocopying, while access to some of the articles on its website is granted only to subscribers. Under the copyleft agreement, distribution of NLR material would be freely granted to all those who wanted it. Those who could afford the convenient and attractive packaging of the material that the physical magazine offers would still buy it, but those who needed the material without being able to afford the packaging would not be denied. Furthermore, documents could be annotated, updated, and placed alongside critiques (this can take place with convenience and speed on the Web, but need not be confined to the virtual sphere). The risk, of course, would be that subscriptions would decline and the magazine would cease to be financially viable; the gamble of copyleft is that the widening access and goodwill that it creates increases rather than reduces income. As with free software, the ambition would be to foster a widening commons of writing and other cultural material, a sphere in which access is determined primarily by need and not price.

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<sup>12</sup> K. Eric Drexler, 'Hypertext Publishing and the Evolution of Knowledge', originally published in *Social Intelligence*, vol. 1, no. 2, pp. 87-120; online version at <http://www.foresight.org>

Until nanobots labour over physical manufactured goods, free beer will not be on offer (the artist and programmer Joshua Portway has remarked that Christ's miracle with the loaves and fishes produced the first Open Source sandwich); yet free speech and a free culture, protected by the very mechanisms put in place to restrict ownership and ensure profits, can be. The 'left' in copyleft should be taken seriously, as a matter of expediency and principle. In this way, Stallman's small puddle of freedom may become connected to an ocean.