

19 Copyright and Globalization in the Age of Computer Networks

Introduction

David Thorburn, moderator: Our speaker today, Richard Stallman, is a legendary figure in the computing world, and my experience in trying to find a respondent to share the podium with him was instructive. One distinguished MIT professor told me that Stallman needs to be understood as a charismatic figure in a biblical parable—a kind of Old Testament anecdote-lesson. “Imagine,” he said, “a Moses or a Jeremiah—better a Jeremiah.” I said, “Well, that’s very admirable. That sounds wonderful. It confirms my sense of the kind of contribution he has made to the world. Then why are you reluctant to share the podium with him?” His answer: “Like Jeremiah or Moses, he would simply overwhelm me. I won’t appear on the same panel with him, but if you asked me to name five people alive in the world who have truly helped us all, Richard Stallman would be one of them.”

The Speech

I should begin by explaining why I have refused to allow this forum to be Webcast, in case it wasn’t clear fully what the issue is: the software they use for Web broadcasting requires the user to download certain software in order to receive the broadcast. That software is not free software. It’s available at zero price but only as an executable, which is a mysterious bunch of numbers.

What it does is secret. You can’t study it, you can’t change it, and you certainly can not publish it in your own modified version. And, those are among the freedoms that are essential in the definition of “free software.”

So if I am to be an honest advocate for free software, I can hardly go around giving speeches, then put pressure on people to use non-free software. I’d be undermining my own cause. If I don’t show that I take my principles seriously, I can’t expect anybody else to take them seriously.

However, this speech is not about free software. After I’d been working on the free software movement for several years and people started using some of the pieces of the GNU operating system, I began getting invited to give speeches at which people started asking me: “Well, how do the ideas about freedom for software users generalize to other kinds of things?”

The following is an edited transcript of a speech given at MIT in the Communications Forum on April 19, 2001. This transcript is part of *Free Software, Free Society: Selected Essays of Richard M. Stallman*, 2nd ed. (Boston: GNU Press, 2004), ISBN 1-882114-99-X, www.gnupress.org.

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And, of course, people asked silly questions like, “Well, should hardware be free?” “Should this microphone be free?”

Well, what does that mean? Should you be free to copy it and change it? Well, as for changing it, if you buy the microphone, nobody is going to stop you from changing it. As for copying it, nobody has a microphone copier. Outside of Star Trek, those things don’t exist. Maybe some day there’ll be nanotechnological analyzers and assemblers, and it really will be possible to copy a physical object, and then these issues of whether you’re free to do that will start being really important. We’ll see agribusiness companies trying to stop people from copying food, and that will become a major political issue, if that technological capability will ever exist. I don’t know if it will; it’s just speculation at this point.

But for other kinds of information, you can raise the issue because any kind of information that can be stored on a computer, conceivably, can be copied and modified. So, the ethical issues of free software, the issues of a user’s right to copy and modify software, are the same as such questions for other kinds of published information. I’m not talking about private information, say, personal information, which is never meant to be available to the public at all. I’m talking about the rights you should have if you get copies of published things where there’s no attempt to keep them secret.

The History of Copyright

In order to explain my ideas on the subject, I’d like to review the history of the distribution of information and of copyright. In the ancient world, books were written by hand with a pen, and anybody who knew how to read and write could copy a book about as efficiently as anybody else. Now somebody who did it all day would probably learn to be somewhat better at it, but there was not a tremendous difference. Because the copies were made one at a time, there was no great economy of scale. Making ten copies took ten times as long as making one copy. There was also nothing forcing centralization—a book could be copied anywhere.

Because of this technology, because it didn’t force copies to be identical, there wasn’t, in the ancient world, the same total divide between copying a book and writing a book. There are things in between that made sense. They did understand the idea of an author—they knew, say, that this play was written by Sophocles—but, in between writing a book and copying a book, there were other useful things you could do. For instance, you could copy a part of a book, then write some new words, copy some more, and write some new words, and on and on. This was called “writing a commentary.” This was a common thing to do, and these commentaries were appreciated.

You could also copy a passage out of one book, then write some other words, and copy a passage from another book and write some more, and so on, and this was making a compendium. Compendia were also very useful. There are works that are lost, but parts of them survived when they were quoted into other books that got to be more popular than the original. Maybe they copied the most interesting parts. People made a lot of copies of these, but they didn’t bother copying the original because it wasn’t interesting enough.

Now as far as I can tell, there was no such thing as copyright in the ancient world. Anyone who wanted to copy a book could copy the book. Later on, the printing press was developed and books started to be copied on the printing press. Now the printing press was not just a quantitative improvement in the ease of copying. It affected different kinds of copying unevenly because it introduced an inherent economy of scale. It was a lot of work to set the type, and much less work to make many identical copies of the page. The result was that copying books tended to become a centralized, mass-production activity. Copies of any given book would probably be made in only a few places.

It also meant that ordinary readers couldn't copy books efficiently—only if you had a printing press could you do that. So it was an industrial activity.

Now for the first few centuries of printing, printed books did not totally replace hand-copying. Hand-copied books were still made, sometimes by rich people and sometimes by poor people. The rich people did this to get an especially beautiful copy that would show how rich they were, and poor people did it because maybe they didn't have enough money to buy a printed copy but they had the time to copy a book by hand. As the song says, "Time ain't money when all you got is time."

So hand-copying was still done to some extent. I think it was in the 1800's that printing actually got to be cheap enough that even poor people could afford printed books if they were literate.

Now copyright was developed along with the use of the printing press; and given the technology of the printing press, it had the effect of an industrial regulation. It didn't restrict what readers could do; it restricted what publishers and authors could do. Copyright in England was initially a form of censorship. You had to get government permission to publish the book. But the idea has changed. By the time of the U.S. Constitution, people came to a different idea of the purpose of copyright, and I think that that idea was accepted in England as well.

For the U.S. Constitution it was proposed that authors should be entitled to a copyright, a monopoly on copying their books. This proposal was rejected. Instead, a crucially different proposal was adopted, which is, that for the sake of promoting progress, Congress could optionally establish a copyright system that would create these monopolies. So the monopolies, according to the U.S. Constitution, do not exist for the sake of those who own them; they exist for the sake of promoting the progress of science. The monopolies are handed out to authors as a way of modifying their behavior to get them to do something that serves the public.

So the goal is to have more written and published books which other people can then read. And this [copyright] is believed to contribute to increased literary activity, and increased writing about science and other fields, and society then learns through this. That's the purpose to be served. The creation of private monopolies was a means to an end only, and the end is a public end.

Now copyright in the age of the printing press was fairly painless because it was an industrial regulation. It restricted only the activities of publishers and authors. In some strict sense, the poor people who copied books by hand may have been

infringing copyright, too. But nobody ever tried to enforce copyright against them because it was understood as an industrial regulation.¹

Copyright in the age of the printing press was also easy to enforce, because it had to be enforced only where there was a publisher, and publishers, by their nature, make themselves known. If you're trying to sell books, you've got to tell people where to come to buy them. You don't have to go into everybody's house to enforce copyright.

Finally, copyright may have been a beneficial system in that context. Copyright in the U.S. is considered by legal scholars as a trade, a bargain between the public and authors. The public trades away some of its natural rights to make copies, and in exchange gets the benefit of more books' being written and published.

Now, is this an advantageous trade? Well, when the general public can't make copies because they can only be efficiently made on printing presses, and most people don't own printing presses, the result is that the general public is trading away a freedom it is unable to exercise, a freedom that is of no practical value. If you have something that is a byproduct of your life and it's useless and you have the opportunity to exchange it for something else of any value, you're gaining. That's why copyright may have been an advantageous trade for the public in that time.

But the context is changing, and that has to change our ethical evaluation of copyright. Now, the basic principles of ethics are not changed by advances in technology; they're too fundamental to be touched by such contingencies. But our decision about any specific question is a matter of the consequences of the alternatives available, and the consequences of a given choice may change when the context changes. That is what is happening in the area of copyright law, because the age of the printing press is coming to an end, giving way gradually to the age of the computer networks.

Computer networks and digital information technology are bringing us back to a world more like the ancient world, where anyone who can read and use the information can also copy it and can make copies about as easily as anyone else could make them. They are perfect copies and they're just as good as the copies anyone else could make. So the centralization and economy of scale introduced by the printing press and similar technologies is going away.

This changing context changes the way copyright law works. You see, copyright law no longer acts as an industrial regulation; it is now a draconian restriction on a general public. It used to be a restriction on publishers for the sake of authors. Now, for practical purposes, it's a restriction on a public for the sake of publishers. Copyright used to be fairly painless and uncontroversial. It didn't restrict the general public. Now [today], that's not true. If you have a computer, the publishers consider restricting you to be their highest priority. Copyright was easy to enforce because it was a restriction only on publishers, who were easy to find—and what they published was easy to see. Now the copyright is a restriction on each and every one of you. To enforce it requires surveillance, an intrusion, and harsh

¹ The original statutes spoke of publishing and printing only. Copying by hand was completely unregulated—most likely because the regulation was aimed at industry.

punishments, and we are seeing these being enacted into law in the U.S. and other countries.

Copyright used to be, arguably, an advantageous trade for the public to make, because the public was trading away freedoms it couldn't exercise. Well, now it can exercise these freedoms. What do you do if you have been producing a byproduct which was of no use to you and you were in the habit of trading it away, and then, all of a sudden, you discover a use for it? You can actually consume it, use it. What do you do? You don't trade it all; you keep some. And that's what the public would naturally want to do. That's what the public does whenever it's given a chance to voice its preference; it keeps some of this freedom and exercises it. Napster is a big example of that, the public deciding to exercise the freedom to copy instead of giving it up. The natural thing for us to do to make copyright law fit today's circumstances is to reduce the amount of copyright power that copyright owners get: to reduce the amount of restriction that they place on the public, and to increase the freedom that the public retains.

But this is not what the publishers want to do. What they want to do is exactly the opposite. They wish to increase copyright powers to the point where they can remain firmly in control of all use of information. This has led to laws that have given an unprecedented increase in the powers of copyright. Freedoms that the public used to have in the age of the printing press are being taken away.

For instance, let's look at e-books. There's a tremendous amount of hype about e-books; you can hardly avoid it. I took a flight in Brazil and in the in-flight magazine, there was an article saying that maybe it would take 10 or 20 years before we all switched to e-books. Clearly, this kind of campaign comes from somebody paying for it. Why are they doing that? I think I know. The reason is that e-books are the opportunity to take away some of the residual freedoms that readers of printed books have always had and still have—the freedom, for instance, to lend a book to your friend, or borrow it from the public library, or sell a copy to a used bookstore, or buy a copy anonymously without putting a record in the database of who bought that particular book. And maybe even the right to read it twice.

These are freedoms that the publishers would like to take away, but they can't do this for printed books because that would be too obvious a power grab and would raise an outcry. So they have found an indirect strategy. First, they obtain the legislation to take away these freedoms for e-books when there are no e-books; so there's no controversy. There are no pre-existing users of e-books who are accustomed to their freedoms and will defend them. That they obtained with the Digital Millennium Copyright Act in 1998. Then they introduce e-books and gradually get everybody to switch from printed books to e-books, and eventually the result is, readers have lost these freedoms without ever having an instant when those freedoms were being taken away and when they might have fought back to retain them.

We see at the same time efforts to take away people's freedom in using other kinds of published works. For instance, movies that are on DVDs are published in an encrypted format that used to be secret—it was meant to be secret—and the only way the movie companies would tell you the format, so that you could make a DVD player, was if you signed a contract to build certain restrictions into the player, with the result that the public would be stopped even from fully exercising

their legal rights. Then a few clever programmers in Europe figured out the format of DVDs and they wrote a free software package that would read a DVD.² This made it possible to use free software on top of the GNU/Linux operating system to watch the DVD that you had bought, which is a perfectly legitimate thing to do. You ought to be able to do that with free software.

But the movie companies objected and they went to court. You see, the movie companies used to make a lot of films where there was a mad scientist and somebody was saying, “But, Doctor, there are some things Man was not meant to know.” They must have watched their own films too much, because they came to believe that the format of DVDs is something that Man was not meant to know. And they obtained a ruling for total censorship of the software for playing DVDs. Even making a link to a site where this information is legally available outside the U.S. has been prohibited. An appeal has been made against this ruling. I signed a friend-of-the-court brief in that appeal, I’m proud to say, although I’m playing a fairly small role in that particular battle.

The U.S. government intervened directly on the other side. This is not surprising when you consider why the Digital Millennium Copyright Act was passed in the first place. The reason is the campaign finance system that we have in the U.S., which is essentially legalized bribery where the candidates are bought by business before they even get elected. And, of course, they know who their master is—they know whom they’re working for, and they pass the laws to give business more power.

What will happen with that particular battle, we don’t know. Meanwhile, Australia has passed a similar law and Europe is almost finished adopting one; so the plan is to leave no place on earth where this information can be made available to people. But the U.S. remains the world leader in trying to stop the public from distributing information that’s been published.

However, the U.S. is not the first country to make a priority of this. The Soviet Union treated it as very important. There, unauthorized copying and redistribution was known as Samizdat, and to stamp it out, they developed a series of methods: First, guards watching every piece of copying equipment to check what people were copying to prevent forbidden copying. Second, harsh punishments for anyone caught doing forbidden copying—you could be sent to Siberia. Third, soliciting informers, asking everyone to rat on their neighbors and coworkers to the information police. Fourth, collective responsibility: “You! You’re going to watch that group! If I catch any of them doing forbidden copying, you are going to prison. So watch them hard.” And, fifth, propaganda, starting in childhood, to convince everyone that only a horrible enemy of the people would ever do this forbidden copying.

The U.S. is using all of these measures now. First, guards watching copying equipment. Well, in copy stores, they have human guards to check what you copy. But human guards to watch what you copy in your computer would be too expensive; human labor is too expensive. So they have robot guards. That’s the purpose of the Digital Millennium Copyright Act. This software goes in your computer; it’s the only way you can access certain data and it stops you from copying.

² There are many such packages now; the first was called “DeCSS.”

There's a plan now to introduce this software into every hard disk, so that there could be files on your hard disk that you can't even access except by getting permission from some network server to access the file. And to bypass this software or even tell other people how to bypass it is a crime.

Second, harsh punishments. A few years ago, if you made copies of something and handed them out to your friends just to be helpful, this was not a crime; it had never been a crime in the U.S. Then they made it a felony, so you could be put in prisons for years for sharing with your neighbor.

Third, informers. Well, you may have seen the ads on TV, the ads in the Boston subways asking people to rat on their coworkers to the information police, which officially is called the Software Publishers Association.

And fourth, collective responsibility. In the U.S., this has been done by conscripting Internet service providers, making them legally responsible for everything their customers post. The only way they can avoid always being held responsible is if they have an invariable procedure to disconnect or remove the information within two weeks after a complaint. Just a few days ago, I heard that a clever protest site criticizing Citibank for some of its nasty policies was disconnected in this way. Nowadays, you don't even get your day in court; your site just gets unplugged.

And finally, propaganda starting in childhood. That's what the word "pirate" is used for. If you'll think back a few years, the term "pirate" was formerly applied to publishers that didn't pay the author. But now it's been turned completely around. It's now applied to members of the public who escape from the control of the publisher. It's being used to convince people that only a nasty enemy of the people would ever do this forbidden copying. It says that "sharing with your neighbor is the moral equivalent of attacking a ship." I hope that you don't agree with that and if you don't, I hope you will refuse to use the word in that way.

The publishers are purchasing laws to give themselves more power. In addition, they're also extending the length of time the copyright lasts. The U.S. Constitution says that copyright must last for a limited time, but the publishers want copyright to last forever. However, getting a constitutional amendment would be rather difficult, so they found an easier way that achieves the same result. Every 20 years they retroactively extend copyright by 20 years. So the result is, at any given time, copyright nominally lasts for a certain period and any given copyright will nominally expire some day. But that expiration will never be reached because every copyright will be extended by 20 years every 20 years; thus no work will ever go into the public domain again. This has been called "perpetual copyright on the installment plan."

The law in 1998 that extended copyright by 20 years is known as the "Mickey Mouse Copyright Extension Act"³ because one of the main sponsors of this law was Disney. Disney realized that the copyright on Mickey Mouse was going to expire, and they don't want that to ever happen because they make a lot of money from that copyright.

³ The official title is "The Sonny Bono Copyright Term Extension Act."

Globalization

Now the original title of this talk was supposed to be “Copyright and Globalization.” If you look at globalization, what you see is that it’s carried out by a number of policies which are done in the name of economic efficiency or so-called free-trade treaties, which really are designed to give business power over laws and policies. They’re not really about free trade. They’re about a transfer of power: removing the power to decide laws from the citizens of any country who might conceivably consider their own interests and giving that power to businesses who will not consider the interests of those citizens.

Democracy is the problem in their view, and these treaties are designed to put an end to the problem. For instance, NAFTA⁴ actually contains provisions, I believe, allowing companies to sue another government to get rid of a law that they believe is interfering with their profits in the other country. So foreign companies have more power than citizens of the country.

There are attempts being made to extend this beyond NAFTA. For instance, this is one of the goals of the so-called free trade area of the Americas, to extend this principle to all the countries in South America and the Caribbean as well, and the multilateral agreement on investment was intended to spread it to the whole world.

One thing we’ve seen in the 1990’s is that these treaties begin to impose copyright throughout the world, and in more powerful and restrictive ways. These treaties are not free-trade treaties. They’re actually corporate-controlled trade treaties being used to give corporations control over world trade, in order to eliminate free trade.

When the U.S. was a developing country in the 1800’s, the U.S. did not recognize foreign copyrights. This was a decision made carefully, and it was an intelligent decision. It was acknowledged that for the U.S. to recognize foreign copyrights would just be disadvantageous, that it would suck money out and wouldn’t do much good.

The same logic would apply today to developing countries, but the U.S. has sufficient power to force them to go against their interests. Actually, it’s a mistake to speak of the interests of countries in this context. In fact, I’m sure that most of you have heard about the fallacy of trying to judge the public interest by adding up everybody’s wealth. If working Americans lost \$1 billion and Bill Gates gained \$2 billion, would Americans generally be better off? Would this be good for America? If you look only at the total, it looks like it’s good. However, this example really shows that the total is the wrong way to judge because Bill Gates really doesn’t need another \$2 billion, but the loss of the \$1 billion by other people who don’t have as much to start with might be painful. Well, in a discussion about any of these trade treaties, when you hear people talk about the interests of this country or that country, what they’re doing, within each country, is adding up everybody’s income. The rich people and the poor people are being added up. So it’s actually an excuse to apply that same fallacy to get you to ignore the effect on the distribution of wealth within the country and whether the treaty is going to make that more uneven, as it has done in the U.S.

⁴ North American Free Trade Agreement.

So it's really not the U.S. interest that is being served by enforcing copyright around the world. It's the interests of certain business owners, many of whom are in the U.S. and some of whom are in other countries. It doesn't, in any sense, serve the public interest.

Rethinking Copyright

But what would make sense to do? If we believe in the goal of copyright stated, for instance, in the U.S. Constitution—the goal of promoting progress—what would be intelligent policies to use in the age of the computer network? Clearly, instead of increasing copyright powers, we have to pull them back so as to give the general public a certain domain of freedom where they can make use of the benefits of digital technology, make use of their computer networks. But how far should that go? That's an interesting question because I don't think we should necessarily abolish copyright totally. The idea of trading some freedoms for more progress might still be an advantageous trade at a certain level, even if traditional copyright gives up too much freedom. But, in order to think about this intelligently, the first thing we have to recognize is, there's no reason to make it totally uniform. There's no reason to insist on making the same deal for all kinds of work.

In fact, that already isn't the case because there are a lot of exceptions for music. Music is treated very differently under copyright law. But the arbitrary insistence on uniformity is used by the publishers in a certain clever way. They pick some peculiar special case and they make an argument that, in that special case, it would be advantageous to have this much copyright. Then they say that for uniformity's sake, there has to be this much copyright for everything. So, of course, they pick the special case where they can make the strongest argument, even if it's a rather rare special case and not really very important overall.

But maybe we should have that much copyright for that particular special case. We don't have to pay the same price for everything we buy. A thousand dollars for a new car might be a very good deal. A thousand dollars for a container of milk is a horrible deal. You wouldn't pay the special price for everything you buy in other areas of life. Why do it here?

We need to look at different kinds of works, and I'd like to propose a way of doing this.

The first class of work is that of functional works—that is, works whose use is to get a job done.

This includes recipes, computer programs, manuals and textbooks, and reference works like dictionaries and encyclopedias. For all these functional works, I believe that the issues are basically the same as they are for software and the same conclusions apply. People should have the freedom even to publish a modified version because it's very useful to modify functional works. People's needs are not all the same. If I wrote this work to do the job I think needs doing, your idea of a job you want to do may be somewhat different. So you want to modify this work to do what's good for you. At that point, there may be other people who have similar needs to yours, and your modified version might be good for them. Everybody who cooks knows this and has known this for hundreds of years. It's normal to make

copies of recipes and hand them out to other people, and it's also normal to change a recipe. If you change the recipe and cook it for your friends and they like eating it, they might ask you, "Could I have the recipe?" Then maybe you'll write down your version and give them copies. That is exactly the same thing that we much later started doing in the free-software community.

So that's one class of work.

The second class of work is works whose purpose is to say what certain people think. Talking about those people is their purpose. This includes, for instance, memoirs, essays of opinion, scientific papers, offers to buy and sell, catalogues of goods for sale. The whole point of those works is that they tell you what somebody thinks or what somebody saw or what somebody believes. To modify them is to misrepresent the authors; so modifying these works is not a socially useful activity. So verbatim copying is the only thing that people really need to be allowed to do.

The next question is: Should people have the right to do commercial verbatim copying? Or is noncommercial enough? You see, these are two different activities we can distinguish, so that we can consider the questions separately—the right to do noncommercial verbatim copying and the right to do commercial verbatim copying. Well, it might be a good compromise policy to have copyright cover commercial verbatim copying but allow everyone the right to do noncommercial verbatim copying. This way, the copyright on the commercial verbatim copying, as well as on all modified versions—only the author could approve a modified version—would still provide the same revenue stream that it provides now to fund the writing of these works, to whatever extent it does.

By allowing the noncommercial verbatim copying, it means the copyright no longer has to intrude into everybody's home. It becomes an industrial regulation again, easy to enforce and painless, no longer requiring draconian punishments and informers for the sake of its enforcement. So we get most of the benefit, and avoid most of the horror, of the current system.

The third category of works is aesthetic or entertaining works, where the most important thing is just the sensation of looking at the work. Now for these works, the issue of modification is a very difficult one because on the one hand, there is the idea that these works reflect the vision of an artist and to change them is to mess up that vision. On the other hand, you have the fact that there is the folk process, where a sequence of people modifying a work can sometimes produce a result that is extremely rich. Even when you have artists producing the works, borrowing from previous works is often very useful. Some of Shakespeare's plays used a story that was taken from some other play. If today's copyright laws had been in effect back then, those plays would have been illegal. It's a hard question what we should do about publishing modified versions of an aesthetic or an artistic work, and we might have to look for further subdivisions of the category in order to solve this problem. For example, maybe computer game scenarios should be treated one way; maybe everybody should be free to publish modified versions of them. But perhaps a novel should be treated differently; perhaps for that, commercial publication should require an arrangement with the original author.

Now if commercial publication of these aesthetic works is covered by copyright, that will give most of the revenue stream that exists today to support the authors and

musicians, to the limited extent that the present system supports them, because [the present system] does a very bad job. So that might be a reasonable compromise, just as in the case of the works which represent certain people.

If we look ahead to the time when the age of the computer networks will have fully begun, when we're past this transitional stage, we can envision another way for the authors to get money for their work. Imagine that we have a digital cash system that enables you to get money for your work. Imagine that we have a digital cash system that enables you to send somebody else money through the Internet; this can be done in various ways using encryption, for instance. And, imagine that verbatim copying of all these aesthetic works is permitted. But they're written in such a way that when you are playing one or reading one or watching one, a box appears on the side of your screen that says, "Click here to send a dollar to the author," or the musician or whatever. And it just sits there; it doesn't get in your way; it's on the side. It doesn't interfere with you, but it's there, reminding you that it's a good thing to support the writers and the musicians.

So if you love the work that you're reading or listening to, eventually you're going to say, "Why shouldn't I give these people a dollar? It's only a dollar. What's that? I won't even miss it." And people will start sending a dollar. The good thing about this is that it makes copying the ally of the authors and musicians. When somebody e-mails a friend a copy, that friend might send a dollar too. If you really love it, you might send a dollar more than once and that dollar is more than they're going to get today if you buy the book or buy the CD because they get a tiny fraction of the sale. The same publishers that are demanding total power over the public in the name of the authors and musicians are giving those authors and musicians the shaft all the time.

I recommend you read Courtney Love's article in Salon magazine, an article about pirates that plan to use musicians' work without paying them. These pirates are the record companies that pay musicians 4% of the sales figures, on the average. Of course, the very successful musicians have more clout. They get more than 4% of their large sales figures, which means that the great run of musicians who have a record contract get less than 4% of their small sales figures.

Here's the way it works: The record company spends money on publicity and they consider this expenditure as an advance to the musicians, although the musicians never see it. So nominally when you buy a CD, a certain fraction of that money is going to the musicians, but really it isn't. Really, it's going to pay back the publicity expenses, and only if the musicians are very successful do they ever see any of that money.

The musicians, of course, sign their record contracts because they hope they're going to be one of those few who strike it rich. So essentially a rolling lottery is being offered to the musicians to tempt them. Although they're good at music, they may not be good at careful, logical reasoning to see through this trap. So they sign and then probably all they get is publicity. Well, why don't we give them publicity in a different way, not through a system that's based on restricting the public and a system of the industrial complex that saddles us with lousy music that's easy to sell. Instead, why not make the listeners' natural impulse to share the music they love the ally of the musicians? If we have this box that appears in the player as

a way to send a dollar to the musicians, then the computer networks could be the mechanism for giving the musicians this publicity, the same publicity which is all they get from record contracts now.

We have to recognize that the existing copyright system does a lousy job of supporting musicians, just as lousy as world trade does of raising living standards in the Philippines and China. You have these “enterprise zones” where everyone works in a sweatshop and all of the products are made in sweatshops. Globalization is a very inefficient way of raising living standards of people overseas. Say an American is getting paid twenty dollars an hour to make something, and you give that job to a Mexican who is getting paid maybe six dollars a day, what has happened here is that you’ve taken a large amount of money away from an American worker, given a tiny fraction, like a few percent, to a Mexican worker and given back the rest to the company. So if your goal is to raise the living standards of Mexican workers, this is a lousy way to do it.

It’s interesting to see how the same phenomenon is going on in the copyright industry, the same general idea. In the name of these workers who certainly deserve something, you propose measures that give them a tiny bit and really mainly prop up the power of corporations to control our lives.

If you’re trying to replace a very good system, you have to work very hard to come up with a better alternative. If you know that the present system is lousy, it’s not so hard to find a better alternative; the standard of comparison today is very low. We must always remember that when we consider issues of copyright policy.

So I think I’ve said most of what I want to say. I’d like to mention that tomorrow⁵ is Phone-In Sick Day in Canada. Tomorrow is the beginning of a summit to finish negotiating the Free Trade Area of the Americas, to try to extend corporate power throughout additional countries, and a big protest is being planned for Quebec. We’ve seen extreme methods being used to smash this protest. A lot of Americans are being blocked from entering Canada through the border that they’re supposed to be allowed to enter through at any time. On the flimsiest of excuses, a wall has been built around the center of Quebec to be used as a fortress to keep protesters out. We’ve seen a large number of different dirty tricks used against public protest against these treaties. So whatever democracy remains to us after government powers have been taken away from democratically elected governors and given to businesses and to unelected international bodies, whatever is left after that may not survive the suppression of public protest against it.

I’ve dedicated seventeen years of my life to working on free software and allied issues. I didn’t do this because I think it’s the most important political issue in the world. I did it because it was the area where I saw I had to use my skills to do a lot of good. But what’s happened is that the general issues of politics have evolved, and the biggest political issue in the world today is resisting the tendency to give business power over the public and governments. I see free software and the allied questions for other kinds of information that I’ve been discussing today as one part of that major issue. So I’ve indirectly found myself working on that issue. I hope I contribute something to the effort.

⁵ April 20, 2001.

Question and Answer Session

David Thorburn: We'll turn to the audience for questions and comments in a moment. But let me offer a brief general response. It seems to me that the strongest and most important practical guidance that Stallman offers us has two key elements. One is the recognition that old assumptions about copyright—old usages of copyright—are inappropriate; they are challenged or undermined by the advent of the computer and computer networks. That may be obvious, but it is essential.

Second is the recognition that the digital era requires us to reconsider how we distinguish and weigh forms of intellectual and creative labor. Stallman is surely right that certain kinds of intellectual enterprises justify more copyright protection than others. Trying to identify systematically these different kinds or levels of copyright protection seems to me a valuable way to engage with the problems for intellectual work posed by the advent of the computer.

But I think I detect another theme that lies beneath what Stallman has been saying and that isn't really directly about computers at all, but more broadly about questions of democratic authority and the power that government and corporations increasingly exercise over our lives. This populist and anti-corporate side to Stallman's discourse is nourishing but also reductive, potentially simplifying. And it is also perhaps overly idealistic. For example, how would a novelist or a poet or a songwriter or a musician or the author of an academic textbook survive in this brave new world where people are encouraged but not required to pay authors? In other words, it seems to me, the gap between existing practice and the visionary possibilities Stallman speculates about is still immensely wide.

So I'll conclude by asking if Stallman would like to expand a bit on certain aspects of his talk and, specifically, whether he has further thoughts about the way in which what we'll call "traditional creators" would be protected under his copyright system.

Richard M. Stallman: First of all, I have to point out that we shouldn't use the term "protection" to describe what copyright does. Copyright restricts people. The term "protection" is a propaganda term of the copyright-owning businesses. The term "protection" means stopping something from being somehow destroyed. Well, I don't think a song is destroyed if there are more copies of it being played more. I don't think that a novel is destroyed if more people are reading copies of it, either. So I won't use that word. I think it leads people to identify with the wrong party.

Also, it's a very bad idea to think about "intellectual property," for two reasons: First, it prejudices the most fundamental question in the area, which is: How should these things be treated and should they be treated as a kind of property? To use the term "intellectual property" to describe the area is to presuppose the answer is "yes," that that's the way to treat things, not some other way.

Second, it encourages over-generalization. Intellectual property is a catch-all for several different legal systems with independent origins, such as copyrights, patents, trademarks, trade secrets, and some other things as well. They are almost completely different; they have nothing in common. But people who hear the term "intellectual property" are led to a false picture where they imagine that there's a general principle of intellectual property that was applied to specific areas, so

they assume that these various areas of the law are similar. This leads not only to confused thinking about what is right to do, it leads people to fail to understand what the law actually says, because they suppose that the copyright law and patent law and trademark law are similar, when, in fact, they are totally different.

So if you want to encourage careful thinking and clear understanding of what the law says, avoid the term “intellectual property.” Talk about copyrights, or talk about patents, or talk about trademarks, or whichever subject you want to talk about. But don’t talk about intellectual property. Opinion about intellectual property almost has to be a foolish one. I don’t have an opinion about intellectual property. I have opinions about copyrights, patents, and trademarks, and they’re different. I came to them through different thought processes because those systems of law are totally different.

Anyway, I made that digression, but it’s terribly important.

So, let me now get to the point. Of course, we can’t see now how well it would work, whether it would work to ask people to pay money voluntarily to the authors and musicians they love. One thing that’s obvious is that how well such a system would work is proportional to the number of people who are participating in the network, and that number, we know, is going to increase by an order of magnitude over a number of years. If we tried it today, it might fail, and that wouldn’t prove anything because with ten times as many people participating, it might work.

The other thing is, we do not have this digital cash payment system; so we can’t really try it today. You could try to do something a little bit like it. There are services you can sign up for where you can pay money to someone—things like Pay Pal. But before you can pay anyone through Pay Pal, you have to go through a lot of rigmarole and give them personal information about you, and they collect records of whom you pay. Can you trust them not to misuse that?

The dollar might not discourage you, but the trouble it takes to pay might discourage you. The whole idea of this is that it should be as easy as falling off a log to pay when you get the urge, so that there’s nothing to discourage you except the actual amount of money. And if that’s small enough, why should it discourage you? We know, though, that fans can really love musicians, and we know that encouraging fans to copy and redistribute the music has been done by some bands that were, and are, quite successful, like *The Grateful Dead*. They didn’t have any trouble making a living from their music because they encouraged fans to tape it and copy the tapes. They didn’t even lose their record sales.

We are gradually moving from the age of the printing press to the age of the computer network, but it’s not happening in a day. People are still buying lots of records, and that will probably continue for many years—maybe forever. As long as that continues, simply having copyrights that still apply to commercial sales of records ought to do about as good a job of supporting musicians as it does today. Of course, that’s not very good, but at least it won’t get any worse.

Question: [A comment and question about free downloading and about Stephen King's attempt⁶ to market one of his novels serially over the Web.]

RMS: Yes, it's interesting to know what he did and what happened. When I first heard about that, I was elated. I thought, maybe he was taking a step towards a world that is not based on trying to maintain an iron grip on the public. Then I saw that he had actually written to ask people to pay. To explain what he did, he was publishing a novel as a serial, by installments, and he said, "If I get enough money, I'll release more." But the request he wrote was hardly a request. It browbeat the reader. It said, "If you don't pay, then you're evil. And if there are too many of you who are evil, then I'm just going to stop writing this."

Well, clearly that's not the way to make the public feel like sending you money. You've got to make them love you, not fear you.

Same Questioner: The details were that he required a certain percentage—I don't know the exact percentage, around 90% sounds correct—of people to send a certain amount of money, which, I believe, was a dollar or two dollars, or somewhere in that order of magnitude. You had to type in your name and your email address and some other information to get to download it and if that percentage of people was not reached after the first chapter, he said that he would not release another chapter. It was very antagonistic to the public downloading it.

Q: Isn't the scheme where there's no copyright but people are asked to make voluntary donations open to abuse by people plagiarizing?

RMS: No. That's not what I proposed. Remember, I'm proposing that there should be copyright covering commercial distribution and permitting only verbatim redistribution noncommercially. So anyone who modified it to put in a pointer to his Web site, instead of a pointer to the real author's Web site, would still be infringing the copyright and could be sued exactly as he could be sued today.

Q: I see. So you're still imagining a world in which there is copyright?

RMS: Yes. As I've said, for those kinds of works. I'm not saying that everything should be permitted. I'm proposing to reduce copyright powers, not abolish them.

Thorburn: I guess one question that occurred to me while you were speaking, Richard, and again now when you're responding here to this question is why you don't consider the ways in which the computer itself eliminates the middlemen completely—in the way that Stephen King refused to do—and might establish a personal relationship?

RMS: Well, they can and, in fact, this voluntary donation is one way.

Thorburn: You think of that as not involving going through a publisher at all?

RMS: Absolutely not. I hope it won't, you see, because the publishers exploit the authors terribly. When you ask the publishers' representatives about this, they say, "Well, yes, if an author or if a band doesn't want to go through us, they shouldn't be legally required to go through us." But, in fact, they're doing their utmost to set it up so that will not be feasible. For instance, they're proposing restricted-copying media formats, and in order to publish in these formats you'll have to go through the

⁶ Stephen King is a *New York Times* bestselling author who has written many books, most of which are in the category of horror. He attempted to sell a book online in a series of installments (you could buy a chapter at a time), but he ended the service before finishing the book.

big publishers, because they won't tell anyone else how to do it. So they're hoping for a world where the players will play these formats, and in order to get anything that you can play on those players, it'll have to come through the publishers. So, in fact, while there's no law against an author or a musician publishing directly, it won't be feasible. There's also the lure of maybe hitting it rich. They say, "We'll publicize you and maybe you'll hit it as rich as the Beatles" (take your pick of some very successful group), and of course only a tiny fraction of musicians are going to have that happen. But they may be drawn by that into signing contracts that will lock them down forever.

Publishers tend to be very bad at respecting their contracts with authors. For instance, book contracts typically have said that if a book goes out of print, the rights revert to the author, and publishers have generally not been very good about living up to that clause. They often have to be forced. Well, what they're starting to do now is use electronic publication as an excuse to say that it's never going out of print; so they never have to give the rights back. Their idea is, when the author has no clout, get him to sign up, and from then on he has no power; it's only the publisher that has the power.

Q: Would it be good to have free licenses for various kinds of works that protect for every user the freedom to copy them in whatever is the appropriate way for that kind of work?

RMS: Well, people are working on this. But for non-functional works, one thing doesn't substitute for another. Let's look at a functional kind of work—say, a word processor. Well, if somebody makes a free word processor, you can use that; you don't need the non-free word processors. But I wouldn't say that one free song substitutes for all the non-free songs or that one free novel substitutes for all the non-free novels. For those kinds of works, it's different. So what I think we simply have to do is to recognize that these laws do not deserve to be respected. It's not wrong to share with your neighbor, and if anyone tries to tell you that you cannot share with your neighbor, you should not listen to him.

Q: With regard to the functional works, how do you, in your own thinking, balance out the need for abolishing the copyright with the need for economic incentives in order to have these functional works developed?

RMS: Well, what we see is, first of all, that this economic incentive is a lot less necessary than people have been supposing. Look at the free-software movement, where we have over 100,000 part-time volunteers developing free software. We also see that there are other ways to raise money for this that are not based on stopping the public from copying and modifying these works. That's the interesting lesson of the free software movement. Aside from the fact that it gives you a way you can use a computer and keep your freedom to share and cooperate with other people, it also shows us that this negative assumption that people would never do these things unless they are given special powers to force people to pay them is simply wrong. A lot of people will do these things. Then if you look at, say, the writing of monographs, which serve as textbooks in many fields of science except for the ones that are very basic, the authors are not making money out of that. We now have a free encyclopedia project which is, in fact, a commercial free encyclopedia project, and it's making progress. We had a project for a GNU

encyclopedia but we merged it into the commercial project when they adopted our license. In January, they switched to the GNU Free Documentation License for all the articles in their encyclopedia. So we said, “Well, let’s join forces with them and urge people to contribute to them.” It’s called NUPEDIA, and you can find a link to it, if you look at <http://www.gnu.org/encyclopedia>. So here we’ve extended the community development of a free base of useful knowledge from software to encyclopedia. I’m pretty confident now that in all these areas of functional work, we don’t need that economic incentive to the point where we have to mess up the use of these works.

Thorburn: Well, what about the other two categories [persons’ thoughts, and entertainment]?

RMS: For the other two classes of work, I don’t know. I don’t know whether people will someday write novels without worrying about whether they make money from it. In a post-scarcity society, I guess they would. Maybe what we need to do in order to reach the post-scarcity society is to get rid of the corporate control over the economy and the laws. So, in effect, it’s a chicken-or-the-egg problem, you know. Which do we do first? How do we get the world where people don’t have to desperately get money except by removing the control by business? And how can we remove the control? I don’t know, but that’s why I’m trying to propose first a compromise copyright system and, second, the voluntary payment supported by a compromise copyright system as a way to provide a revenue stream to the people who write those works.

Q: How would you really expect to implement this compromise copyright system under the chokehold of corporate interests on American politicians due to their campaign-finance system?

RMS: It beats me. I wish I knew. It’s a terribly hard problem. If I knew how to solve that problem, I would solve it and nothing in the world could make me prouder.

Q: How do you fight the corporate control? Because when you look at these sums of money going into corporate lobbying in the court case, it is tremendous. I think the DeCSS (Decryption of Contents Scrambling System) case that you’re talking about is costing something like a million-and-a-half dollars on the defense side. Lord knows what it’s costing on the corporate side. Do you have any idea how to deal with these huge sums of money?

RMS: I have a suggestion. If I were to suggest totally boycotting movies, I think people would ignore that suggestion. They might consider it too radical. So I would like to make a slightly different suggestion which comes to almost the same thing in the end, and that is, don’t go to a movie unless you have some substantial reason to think it’s good. Now this will lead in practice to almost the same result as a total boycott of Hollywood movies. In extension it’s almost the same, but in intension it’s very different. Now I’ve noticed that many people go to movies for reasons that have nothing to do with whether they think the movies are good. So if you change that, if you only go to a movie when you have some substantial reason to think it’s good, you’ll take away a lot of their money.

Thorburn: One way to understand all of this discourse today, I think, is to recognize that whenever radical, potentially transforming technologies appear in society,

there's a struggle over who controls them. We today are repeating what has happened in the past. So from this angle, there may not be a reason for despair, or even pessimism, about what may occur in the longer run. But, in the shorter term, struggles over the control of text and images, over all forms of information are likely to be painful and extensive. For example, as a teacher of media, my access to images has been restricted in recent years in a way that had never been in place before. If I write an essay in which I want to use still images, even from films, they are much harder to get permission to use, and the prices charged to use those still images are much higher—even when I make arguments about intellectual inquiry and the legal category of “fair use.” So I think, in this moment of extended transformation, the longer-term prospects may, in fact, not be as disturbing as what's happening in the shorter term. But in any case, we need to understand the whole of our contemporary experience as a renewed version of a struggle over the control of technological resources that is a recurring principle of Western society.

It's also essential to understand that the history of older technologies is itself a complicated matter. The impact of the printing press in Spain, for example, is radically different from its impact in England or in France.

Q: One of the things that bothers me when I hear discussions of copyright is that often they start off with, “We want a 180-degree change. We want to do away with any sorts of control.” It seems to me that part of what lay under the three categories that were suggested is an acknowledgement that there is some wisdom to copyright. Some of the critics of the way copyright is going now believe that, in fact, it ought to be backed up and function much more like patent and trademarks in terms of its duration. I wonder if our speaker would comment on that as a strategy.

RMS: I agree that shortening the time span of copyright is a good idea. There is absolutely no need in terms of encouraging publication for a possibility of copyrights' lasting as much as 150 years, which, in some cases, it can under present law. Now the companies were saying that a 75-year copyright on a work made for hire was not long enough to make possible the production of their works. I'd like to challenge those companies to present projected balance sheets for 75 years from now to back up that contention. What they really wanted was just to be able to extend the copyrights on the old works, so that they can continue restricting the use of them. But how you can encourage greater production of works in the 1920's by extending copyright today escapes me, unless they have a time machine somewhere. Of course, in one of their movies, they had a time machine. So maybe that's what affected their thinking.

Q: Have you given thought to extending the concept of “fair use,” and are there any nuances there that you might care to lay out for us?

RMS: Well, the idea of giving everyone permission for noncommercial verbatim copying of two kinds of works, certainly, may be thought of as extending what fair use is. It's bigger than what's fair use currently. If your idea is that the public trades away certain freedoms to get more progress, then you can draw the line at various different places. Which freedoms does the public trade away and which freedoms does the public keep?

Q: To extend the conversation for just a moment, in certain entertainment fields, we have the concept of a public presentation. So, for example, copyright does

not prevent us from singing Christmas carols seasonally but it prevents the public performance. And I'm wondering if it might be useful to think about instead of expanding fair use to unlimited noncommercial verbatim copying, to something less than that but more than the present concept of fair use.

RMS: I used to think that that might be enough, and then Napster convinced me otherwise because Napster is used by its users for noncommercial, verbatim redistribution. The Napster server, itself, is a commercial activity but the people who are actually putting things up are doing so noncommercially, and they could have done so on their Web sites just as easily. The tremendous excitement about, interest in, and use of Napster shows that that's very useful. So I'm convinced now that people should have the right to publicly, noncommercially, redistribute verbatim copies of everything.

Q: One analogy that was recently suggested to me for the whole Napster question was the analogy of the public library. I suppose some of you who have heard the Napster arguments have heard this analogy. I'm wondering if you would comment on it. The defenders of people who say Napster should continue and there shouldn't be restrictions on it sometimes say something like this: "When folks go into the public library and borrow a book, they're not paying for it, and it can be borrowed dozens of times, hundreds of time, without any additional payment. Why is Napster any different?"

RMS: Well, it's not exactly the same. But it should be pointed out that the publishers want to transform public libraries into pay-per-use, retail outlets. So they're against public libraries.

Q: Can these ideas about copyright suggest any ideas for certain issues about patent law such as making cheap, generic drugs for use in Africa?

RMS: No, there's absolutely no similarity. The issues of patents are totally different from the issues of copyrights. The idea that they have something to do with each other is one of the unfortunate consequences of using the term "intellectual property" and encouraging people to try to lump these issues together because, as you've heard, I've been talking about issues in which the price of a copy is not the crucial thing. But what's the crucial issue about making AIDS drugs for Africa? It's the price, nothing but the price.

Now the issue I've been talking about arises because digital information technology gives every user the ability to make copies. Well, there's nothing giving us all the ability to make copies of medicines. I don't have the ability to copy some medicine that I've got. In fact, nobody does; that's not how they're made. Those medicines can be made only in expensive centralized factories, whether they're generic drugs or imported from the U.S. Either way, they're going to be made in a small number of factories, and the issues are simply how much do they cost and are they available at a price that people in Africa can afford.

So that's a tremendously important issue, but it's a totally different issue. There's just one area where an issue arises with patents that is actually similar to these issues of freedom to copy, and that is in the area of agriculture. Because there are certain patented things that can be copied, more or less—namely, living things. They copy themselves when they reproduce. It's not necessarily exact copying; they re-shuffle the genes. But the fact is, farmers for millennia have been making use of this

capacity of the living things they grow to copy themselves. Farming is, basically, copying the things that you grew, and you keep copying them every year. When plant and animal varieties get patented, when genes are patented and used in them, the result is that farmers are being prohibited from doing this.

There is a farmer in Canada who had a patented variety growing on his field and he said, “I didn’t do that deliberately. The pollen blew, and the wind in those genes got into my stock of plants.” And he was told that that doesn’t matter; he has to destroy them anyway. It was an extreme example of how much government can side with a monopolist.

So I believe that, following the same principles that I apply to copying things on your computer, farmers should have an unquestioned right to save their seeds and breed their livestock. Maybe you could have patents covering seed companies, but they shouldn’t cover farmers.

Q: There’s more to making a model successful than just the licensing. Can you speak to that?

RMS: Absolutely. Well, you know, I don’t know the answers. But part of what I believe is crucial for developing free, functional information is idealism. People have to recognize that it’s important for this information to be free, that when the information is free, you can make full use of it. When it’s restricted, you can’t. They have to recognize that the non-free information is an attempt to divide them and keep them helpless and keep them down. Then they can get the idea, “Let’s work together to produce the information we want to use, so that it’s not under the control of some powerful person who can dictate to us what we can do.”

This tremendously boosts [the development of the free software community]. I don’t know how much it will work in various different areas, but I think that in the area of education, when you’re looking for textbooks, I think I see a way it can be done. There are a lot of teachers in the world, teachers who are not at prestigious universities—maybe they’re in high school; maybe they’re in college where they don’t write and publish a lot of things and there’s not a tremendous demand for them. But, a lot of them are smart. A lot of them know their subjects well and they could write textbooks about lots of subjects and share them with the world and receive a tremendous amount of appreciation from the people who will have learned from them.

Q: That’s what I proposed. But the funny thing is, I do know the history of education. That’s what I do—educational, electronic media projects. I couldn’t find an example. Do you know of one?

RMS: No, I don’t. I started proposing this free encyclopedia and learning resource a couple of years ago, and I thought it would probably take a decade to get things rolling. Now we already have an encyclopedia that is rolling. So things are going faster than I hoped. I think what’s needed is for a few people to start writing some free textbooks. Write one about whatever is your favorite subject or write a fraction of one. Write a few chapters of one and challenge other people to write the rest.

Q: Actually what I was looking for is something even more than that. What’s important in your kind of structure is somebody that creates an infrastructure to

which everybody else can contribute. There isn't a K-through-12 infrastructure out there in any place for a contribution for materials.

I can get information from lots of places but it's not released under free licenses, so I can't use it to make a free textbook.

RMS: Actually, copyright doesn't cover the facts. It only covers the way it's written. So you can learn a field from anywhere and then write a textbook, and you can make that textbook free, if you want.

Q: But I can't write by myself all the textbooks that a student needs going through school.

RMS: Well, it's true. And I didn't write a whole free operating system, either. I wrote some pieces and invited other people to join me by writing other pieces. So I set an example. I said, "I'm going in this direction. Join me and we'll get there." And enough people joined in that we got there. So if you think in terms of, how am I going to get this whole gigantic job done, it can be daunting. So the point is, don't look at it that way. Think in terms of taking a step and realizing that after you've taken a step, other people will take more steps and, together, it will get the job done eventually.

Assuming that humanity doesn't wipe itself out, the work we do today to produce the free educational infrastructure, the free learning resource for the world, will be useful for as long as humanity exists. If it takes 20 years to get it done, so what? So don't think in terms of the size of the whole job; think in terms of the piece that you're going to do. That will show people it can be done, so others will do other pieces.