

## SCI 199 L0161 Short Report #4, 2005-2006

Due by the end of the last day of classes (Thursday April 13th), or earlier.

**WARNING!** You have a lot of stuff due by the end of the last day of classes, such as all of the remaining material in this course. You should complete and submit it all as early as you can.

### Free software or open source?

In 1984, Richard Stallman published “The GNU manifesto”, which was the call for the creation of a complete free operating system. “Free” in this case did not mean zero-cost, but rather referred to specific kinds of freedom for its users. You can find the original GNU manifesto at

<http://www.gnu.org/gnu/manifesto.html>

and you can find a discussion of the freedoms involved at

<http://www.gnu.org/philosophy/why-free.html>

A variety of other philosophical documents can be found starting at

<http://www.gnu.org/philosophy/philosophy.html>

More recently, some people have introduced the term “open source software” as an alternative to the term “free software”. One central person in the open source movement is Eric Raymond. Raymond says that the focus of the free software movement is too narrow and is less effective at building a popular movement than the open source people are. Stallman says that talking about freedom is more important.

A document entitled “Why ‘Free Software’ is better than ‘Open Source’” explains Stallman’s view. The best document I can find at the moment about the open source movement’s view is Eric Raymond’s “Shut Up And Show Them The Code”; let us all know if you find a better one.

These documents are available on the web at

<http://www.gnu.org/philosophy/free-software-for-freedom.html>

<http://www.catb.org/~esr/writings/shut-up-and-show-them.html>

These days, much software with some or all of the attributes of the freedom which Stallman imagined in 1984 is readily available on the net and elsewhere. Some of it is distributed under the terms of the GNU “General Public Licence” (GPL), advocated by Stallman and discussed at

<http://www.gnu.org/copyleft/>

and some of this software is distributed under other licence terms.

Your report will summarize the two ideas, “open source” and “free software”, concisely; then it will go beyond this to answer a few (very few!) questions such as:

- If I purchase a complex piece of machinery, what rights do I have to understanding its operation and working with it? What analogues are there of the proprietary secrecy of computer program source code? How do legal regulations compare to the current legal statuses of software source code (for “closed-source” programs)?
- Were the originators of ideas about the modern concept of copyright (circa 1700, I believe) concerned about freedom? What happened with copyright laws in the new United States of America (circa 1776-1790)? Explain the view that copyright is a transaction between the rights of the public and the rights of the copyright-holder. Should copyright laws be formulated on

*(over)*

this basis? If not, what alternative view should form the basis behind copyright law?

- What is a “linux distribution”? Most of them release *all* of their own code under the GNU GPL; why are some of them (e.g. RedHat) nevertheless very profitable? Is this working out as envisioned in the GNU Manifesto? Is “freedom” a necessary part of this process?
- What is the philosophical/political idea of a “natural right”? What rights surrounding copyright, and the use of copyrighted materials, are “natural rights” in this sense? Are some principles being claimed as natural rights which are not?
- How could software patents prevent programmers from working on open source programs?
- What are some of the different kinds of licences under which “open source” software is distributed these days, and how do the differences between these licences help or hinder the software authors’ objectives?
- Is permission to write computer programs a freedom? Should it be regulated? Is the ability of ordinary people to write computer programs for their own use important? Is it threatened? Should computer programmers be licensed, like electricians or civil engineers?
- Is a copyright a monopoly? Who says it is, and what is the analogy? And if so, is this necessarily bad? —What are the criteria for when a monopoly is undesirable?
- Under what sorts of circumstances do some people naturally attempt to avoid freedom, and does this relate to issues of freedom surrounding computer software? Similarly, what connections can you make on the topic of people demanding freedom for others (e.g. the FSF advocating free software for everyone, not just for themselves)?

You must consult (and cite) at least one additional reference not written by people associated with any of Project GNU / Free Software Foundation (e.g. Richard Stallman), the Open Source Initiative (e.g. Eric Raymond), or Microsoft (e.g. Vinod Valloppillil).

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This “short report” assignment is about the topic material above, but also about writing and organizing your thoughts to make a persuasive argument. Obviously, remember that writing style matters: the organization of your paper, the logical flow of your arguments, and spelling and grammar are all important. The length is also important; these short reports are an exercise in being concise. Your report must be less than **three** pages long when double-spaced and in a 12-point version of a normal font (such as Times), with one-inch margins all around (top and bottom and left and right). (The page count does not include your references (bibliography) and/or footnotes, nor a cover page should you care to make one.)

Please refer to the assignment for report #1 (or the course web page) for advice on citing web pages.

Do not cite web documents which are themselves papers or projects for university courses; or any articles with unclear or complex editing and authorship histories, such as Wikipedia articles. Instead, find the original documents to cite (possibly from the references section of one of these documents). All citations require an author.