Open Source Software: Intellectual Challenges for the Status Quo

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Ethical Issues In The
“Open Source” Movement

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What Is “OSS” ??

“We do not have a universally accepted definition of OSS. … We will use the loose definition”

H. Wang & C. Wang,
Open Source Software Adoption: A Status Report
IEEE Software, March/April 2001
Solution to Forced Upgrades

“If software manufacturers had their way, I would have been forced to upgrade half a dozen times...at a horrendous cost...”

D. J. Jacques,
Open Source Ain’t Always Pretty, But It Works
www.newsfactor.com
Back to the Good Old Days

“Has the old fraternity based on integrity, pride and ‘settling it with code’ been replaced by greed, deception, and “we’ll see you in court?”

K. Granroth and A. Pour,

“Business Ethics in the Open Source Community?”

www.granroth.org/ximian.html
“Open Source software gets stronger and stronger with every release and has less problems because the people using it are the ones who are developing it.”

D. Kusnetsky quoted in J. Lyman,

“If Open Source is so great, why isn’t everyone … ?”

www.newsfactor.com
Free Software/Open Source

“The free software movement and the open source movement are like two political camps within the free software community. … the enemy is proprietary software.”

www.gnu.org/philosophy/freesoftware-for-freedom
An Article I Recommend

B. Meyer,

“The Ethics of Free Software”

www.sdmagazine.com

Deeper analysis, clearer thinking.
“Many of the contributions of the free software community are admirable. Highly disturbing, however, is its widespread slander of the commercial software world.”

“The GNU and FSF view is that it is OK to sell anything except software.”
“I’ve looked at the source, and there are pieces that are good and pieces that are not ... my experience ... is that Linux is quite unreliable. Microsoft is totally unreliable, but Linux is worse.”

Ken Thompson, as quoted by Meyer
Shameless Plugs

- Ethics and Computing text
  (author copies at Wiley display)

- “Star Wars” curriculum module
  (on two CDs)
Professional Issues in the “Open Source Movement”

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Curmudgeon

- Takes the fun out of things
- Killjoy - control what create
- Wet Blanket
- Likes documentation
- Thinks standards are important.
- Doesn’t like working for the axis of evil.
- Don
DEFINITIONS  From OSS.Org:

- Free Redistribution
- Source Code Made Public
- Derived Works
- Integrity of Source Code
- No Discrimination Against:
  - Persons, Groups, Fields of endeavour
  - Distribution of License
  - Not specific to a product distribution
  - Not Restrict other software
Free Redistribution

- The license shall not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from several different sources.

The license shall not require a royalty or other fee for such sale.
Source Code Made Public

- The program must include source code, and must allow distribution in source code as well as compiled form.
Derived Works

- The license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original software.

The loss of the ability to control what you create.
QUAKE

A new children's/Teenager’s game
ETHNIC CLEANSING

White supremacy, anti-Semitism games
- Created using Genesis 3D

“hate groups have created their own original racist games using ‘open-source’ that enables new games to be constructed from scratch”

“Genesis 3D takes no responsibility for any alteration to the game software”

www.adl.org/PressRele/Extremism
NO DISCRIMINATION AGAINST PERSONS OR GROUPS in OSS means

- You cannot control who uses it.
- How they use it
- Or even if they charge for it
“…takes no responsibility for any alteration…”
“…takes NO RESPONSIBILITY.”
Free Software Foundation
the copyright holders and/or other parties provide this program “as is” without warranty of any kind, either expressed or implied…the entire risk as to the quality and performance of the program is with you”
Quality, Testing, Standards, Responsibility, Accountability

Software developers shall:

“Take responsibility for detecting, correcting, and reporting errors in software and associated documents on which they work.”

Software Engineering Code of Ethics
• NOT
• MY
• JOB
DEFINITIONS:

- Derived Works
  - The license may require derived works to carry a different name or version number from the original software.
Go with the OSS Flow but reduce the ethical risk by:

- Adding some control over use in your license
- Accepting some responsibility for quality and impact of what you develop
- Insisting on the application of good development standards to reduce risks.

Then it is safer to run with the OSS crowd.
Pedagogues should Pay Attention to Open Source Software

• Keith Miller
• Computer Science
• University of Illinois-Springfield
Reasons to Pay Attention

- Open Source Software (OSS) is cheap.
- OSS lets you look at the source code.
- OSS offers an alternative to traditional commercial software.
- The alternative is potentially important technically.
- The alternative is ethically interesting.
Encourage Students to Explore the Claims

- Is OSS more reliable than traditional commercial software, as OSS advocates claim?
- Is OSS less reliable than traditional commercial software, as commercial software developers claim?
- What can students learn from both competing models?
Ethical Questions about OSS and Commercial Software

- Software cost and the digital divide
- Programmer motivations
- Intellectual property rights
- Success does not always prove that something is good; but failure doesn’t either.
- OSS and utilitarians; Kant and professional responsibility
Using Analogies to Explore OSS and Commercial Software

Open Source Software is to Commercial Software as…

…Linux is to Windows
…Richard Stallman is to Bill Gates
…the merchant marine is to the US Navy
…Mom & Pop stores are to Safeway
…Boy Scouts are to Outward Bound
…Salvation Army is to Federal Welfare
Audience Participation: Analogies

Open Source Software is to Commercial Software as…

…HTML is to ________________

…YMCA soccer is to ________________

…__________ is to network TV

…__________ is to a for-profit hospital

…All volunteer army is to ________________

…________________ is to ________________
We Use Open Source: Now what?

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Overview

- Motivations for using open source
- An ethical question
- The players
- A look at concerns
- Some potential actions
Motivations for Using Open Source

- Economic
- Pedagogical
- Philosophical
- Quality
Important question:

What are the ethical obligations of Open Source users in the education community to the Open Source development community?
The Players

- Students
- The Open Source Community
- Potential Employers
Student Concerns

- Quality learning environment
- Variety of experiences
- Opportunity to experience state of the art
- Ability to critique software
Open Source Concerns

- Increasing user base
- Increasing developer base
- Increasing the number of debuggers/maintainers
- Initiate new projects
Business Concerns

- Broad-based knowledge
- Transformability/trainability
- New idea sources
- Risk minimization
Potential Actions

- Work on Open Source projects
- Advocate Open Source
- Include Open Source development as part of class
- Encourage seeking time for Open Source development as part of a job