



Open-Source



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Open-Source Software

- Consequences of proprietary software
- Open source definition
- Beneficial consequences of open-source software
- Examples of open-source software
- The GNU Project and Linux
- Impact of open-source software
- Critique of the open-source software movement

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Consequences of Proprietary Software

- Increasingly harsh measures being taken to enforce copyrights
- Copyrights are not serving their purpose of promoting progress
- It is wrong to allow someone to “own” a piece of intellectual property

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Open Source Definition

- No restrictions preventing others from selling or giving away software
- Source code included in distribution
- No restrictions preventing others from modifying source code
- No restrictions regarding how people can use software
- Same rights apply to everyone receiving redistributions of the software (copyleft)

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Beneficial Consequences of Open-Source Software

- Gives everyone opportunity to improve program
- New versions of programs appear more frequently
- Eliminates tension between obeying law and helping others
- Programs belong to entire community
- Shifts focus from manufacturing to service

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Examples of Open-Source Software

- BIND
- Apache
- Sendmail
- Perl, Python, Ruby, TCL/TK, PHP, Zope
- GNU compilers for C, C++, Objective-C, Fortran, Java, and Ada

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GNU Project and Linux

- GNU Project
 - Begun by Richard Stallman in 1984
 - Goal: Develop open-source, Unix-like operating system
 - Most components developed in late 1980s
- Linux
 - Linus Torvalds wrote Unix-like kernel in 1991
 - Combined with GNU components to make an O.S.
 - Commonly called Linux

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Impact of Open-Source Software

- Linux putting pressure on companies selling proprietary versions of Unix
- Linux putting pressure on Microsoft and Apple desktops

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Critique of the Open-Source Software Movement

- Without critical mass of developers, quality can be poor
- Without an “owner,” incompatible versions may arise
- Relatively weak graphical user interface
- Poor mechanism for stimulating innovation (no companies will spend billions on new programs)

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Legitimacy of Intellectual Property Protection for Software

- Rights-based analysis
- Utilitarian analysis
- Conclusion

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Rights-based Analysis

- "Just deserts" argument
 - Programming is hard work that only a few can do
 - Programmers should be rewarded for their labor
 - They ought to be able to own their programs
- Criticism of "just deserts" argument
 - Why does labor imply ownership?
 - Could have a just society in which all labor went to common good
 - Intellectual property not like physical property

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Utilitarian Analysis

- Argument against copying
 - Copying software reduces software purchases...
 - Leading to less income for software makers...
 - Leading to lower production of new software...
 - Leading to fewer benefits to society
- Each of these claims can be debated

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Conclusion

- Natural rights argument weak
- Utilitarian argument not strong, either

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Creative Commons

- Under current copyright law, eligible works are copyrighted the moment they are created
- No copyright notice does not mean it's okay to copy
- Must contact people before using work
- That slows down creative re-use of others' work
- Free Creative Commons license indicates
 - Which kinds of copying are okay
 - Which rights are being retained

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Open Invention Network

- Open Invention Network is an intellectual property company that was formed to promote the Linux environment by using patents to create a collaborative ecosystem.
- Open Invention Network's mission is to further software innovation by acquiring patents to be used for cross-licensing purposes to defend the Linux environment - making them available on a royalty-free basis.

<http://www.openinventionnetwork.com/>

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