

Open Source

The Church of Emacs

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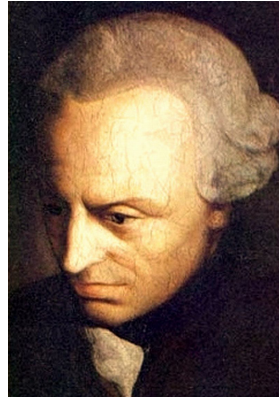
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Analysis

Stallman's Argument: Basis

- ▶ A deontological standpoint
- ▶ Stallman as an ethical essentialist
 - ▶ proprietary software
 - ▶ restricted data formats
 - ▶ internet services
 - ▶ surveillance
- ▶ “always bring up [free software] as an ethical issue” (Stallman, 2011, para. 63)



Stallman's Argument: Logos

- ▶ Deductive reasoning
 - ▶ tobacco and proprietary software comparison (Stallman, 2011, para. 55)
- ▶ Contradictory premises
 - ▶ dismissing economics of free digital society (para. 34)
 - ▶ later addressing economics of digital media (para. 109)

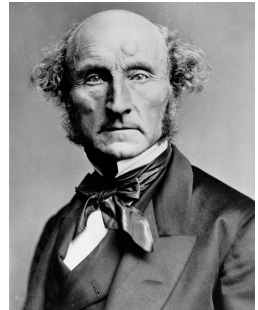
Stallman's Argument: Pathos

- ▶ Use of strong characterizations
 - ▶ “Computers are Stalin’s dream” (Stallman, 2011, para. 3)
 - ▶ All DRM should be illegal (para. 30)
- ▶ Strong appeals to tradition
 - ▶ values derived from a non-digital society
 - ▶ Amazon Kindle (para. 98)
- ▶ Calls Amazon Kindle (para. 98)
 - ▶ an immediate end to digital surveillance
 - ▶ “you can’t wait until there is another dictator” (para. 13)

Practical Advantages of Open Source

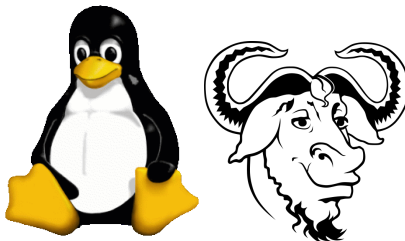
Software for Freedom vs. Freedom for Software

- ▶ Needs fulfilled by free software
 - ▶ a need for software
 - ▶ a need for ethical software and practices
- ▶ Stallman's emphasis on a "free digital society"
- ▶ Consequentialist stance on free software
 - ▶ open source vs. free software
 - ▶ a less radical approach
 - ▶ weighing the utility of open source
 - ▶ need-driven software (Bisson, 2007, p. 17)



GNU + Linux, GNU/Linux

- ▶ The GNU operating system
 - ▶ “written for your freedom” (Stallman, 2011, para. 48)
- ▶ The need for a kernel
 - ▶ 1990: GNU Hurd
 - ▶ 1991: Linux
- ▶ Fusion of Linux and GNU
 - ▶ GNU + Linux, or just Linux?
 - ▶ Torvalds vs. Stallman



Linux: open source success principles

- ▶ Using / creating the best tools for the job
- ▶ Not started with open source in mind (Torvalds, 2016, 3:30)
- ▶ Open source contributions
 - ▶ GPL and copyleft
 - ▶ Collaborative efforts and development
 - ▶ Formation of a communities around open-source code
- ▶ Flexibility
 - ▶ Availability of source code promotes reuse
 - ▶ power saving on Linux cellphone benefit Linux supercomputers (Zemlin, 2013, 11:34)

Another Success Story - Apache HTTP Server

- ▶ Most popular web server since 1995
- ▶ Open source project
- ▶ Inherited the NCSA Common Gateway Interface.
- ▶ Repurposed software components
 - ▶ enabling efficient software development (Bisson, 2007, p. 17)



Preventing Obsolescence

- ▶ Vendor lock-in
 - ▶ warned against by Stallman (2011, para. 54)
- ▶ Proprietary software creates vendor dependency
 - ▶ maintenance
 - ▶ updates
 - ▶ support
- ▶ Case Study: Electronic voting machines (Colannino, 2012, p. 916)
 - ▶ migration to electronic voting machines
 - ▶ software escrow
 - ▶ code was licensed for testing, not deployment.

Quality Assurance

- ▶ Linus's Law
 - ▶ 6,782 lines of code added/subtracted from Linux daily (Zemlin, 2013, 12:03)
- ▶ Software peer-review
- ▶ Core developers and user developers
- ▶ Mozilla bug reports (Wang, Shih, & Carroll, 2015, p. 352)
 - ▶ value differences
 - ▶ skill differences
 - ▶ reciprocal skill transfer
 - ▶ disorganization preventable



References I

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