V. V. Rutsky, 3057/2 March 22, 2009

# Free Software and Open Source movements

### I Free Software movement

- 1. Richard M. Stallman and his idea of Free Software.
- 2. Free Software Foundation (1985).
- 3. Free Software freedoms:
- Freedom 0: The freedom to run the program, for any purpose.
- Freedom 1: The freedom to study how the program works, and adapt it to your needs.
- Freedom 2: The freedom to redistribute copies so you can help your neighbor.
- Freedom 3: The freedom to improve the program, and release your improvements (and modified versions in general) to the public, so that the whole community benefits.
  - 4. GNU Operation System.
  - 5. Free Software licenses.

# II Open Source movement

- 1. Open Source Definition:
  - 1. Free redistribution.
  - 2. Source code.
  - 3. Derived works.
  - 4. Integrity of the author's source code.
  - 5. No discrimination against persons or groups.
  - 6. No discrimination against fields of endeavor.
  - 7. Distribution of license.
  - 8. License must not be specific to a product.
  - 9. License must not restrict other software.
  - 10. License must be technology-neutral.
- 2. Open Source is a powerful and reliable software.
- 3. Difference between Free Software and Open Source.
- 4. Free Software is better than Open Source.

#### III Licenses

- 1. Copyleft vs. permissive licenses vs. public domain.
- 2. GPL-like: GNU Lesser GPL, GNU Affero GPL, GNU Free Documentation License.
- 3. BSD-like: BSD, MIT, Boost Software License, Apache License.
- 4. CreativeCommons. CC-BY/SA/ND/NC.

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# IV Free Software, Open Source and profit

- 1. "Free" is not about price!
- 2. Selling program binary is mostly unprofitable if you are not Big Monopolist Corporation.
- 3. Open Source busyness models:
  - (a) Redistribution and support. Red Hat Linux.
  - (b) Double licensing. Trolltech Qt, Berkeley DB.
  - (c) Implementing program/servers solutions. Zend Corporation.

## V Stories of success

- 1. End user examples.
  - (a) Operating systems: \*BSD, GNU/Linux, ReactOS...
  - (b) Servers: LAMP (Linux, Apache, MySQL, PHP)...
  - (c) Desktop: FireFox, OpenOffice...
  - (d) Web: Wikimedia...
  - (e) Science tools: BLAS, Octave, GNU R...
  - (f) Languages compilers/interpreters: GCC, Python...
  - (g) A lot of developer tools: version control systems, build systems, tracking systems.
- 2. Corporation examples.
  - (a) Cygnus Solutions. "Cygnus, Your GNU Support".
  - (b) Canonical Ltd.
  - (c) Red Hat.
  - (d) Mozilla Corporation.
  - (e) Qt Software.
  - (f) Sun Microsystems.

### VI Conclusion

- 1. Free Software is a way to make world better and may require some sacrifices.
- 2. Open Source is a quality guarantee.
- 3. It is possible to gain money and work for freedom.