

# The Economic model of Open Source – i

- Given the big picture of the software industry, there are many ways in which companies try to generate value
- As we discussed at MeetingOne, the early computers were not “consumer-grade” and had to have a team of programmers to run and manage. Having the source code all the time was a given.

# The Economic model of Open Source – ii

- With the closing up of source code there was a opportunity to make a lot of revenue. The reason why this worked was because the environment and economics of that time did not help in nor see value in the code being made open.
- The growth of the Internet **AND** the fullfilment of Moore's Law, the value of access to the source code has become more compelling.

# The Economic model of Open Source – iii

- A common complaint by some is that FLOSS is a “cancer” on the industry.
- It is also branded as being “communism”.
- Companies have to evolve and adopt as technology and business models change. Labelling them or brushing them off, just delays the inevitable.

# Principles and Practise

(adapted from [perens.com/OpenStandards](http://perens.com/OpenStandards))

An Open Standard is more than just a specification. The principles behind the standard, and the practice of offering and operating the standard, are what make the standard Open.

# Six Principles

- 1. Availability** – Open Standards are available for all to read and implement.
- 2. Maximize End-User Choice** – Open Standards create a fair, competitive market for implementations of the standard. They do not lock the customer in to a particular vendor or group.

# Six Principles – ii

- 3. No Royalty** – Open Standards are free for all to implement, with no royalty or fee. Certification of compliance by the standards organization may involve a fee.
- 4. No Discrimination** – Open Standards and the organizations that administer them do not favour one implementor over another for any reason other than the technical standards compliance of a vendor's implementation. Certification organizations must provide a path for low and zero-cost implementations to be validated, but may also provide enhanced certification services.

# Six Principles – iii

5. **Extension or Subset** – Implementations of Open Standards may be extended, or offered in subset form. However, certification organizations may decline to certify subset implementations, and may place requirements upon extensions (see Predatory Practices).
6. **Predatory Practices** – Open Standards may employ license terms that protect against subversion of the standard by embrace-and-extend tactics. The licenses attached to the standard may require the publication of reference information for extensions, and a license for all others to create, distribute, and sell software that is compatible with the extensions. An Open Standard may not otherwise prohibit extensions.

# Practise

## 1. Availability

Open Standards are available for all to read and implement.

Thus:

- a. The best practice is for the standards text and reference implementation to be available for free download via the Internet.
- b. Any software project should be able to afford a copy without undue hardship. The cost should not far exceed the cost of a college textbook.
- c. Licenses attached to the standards documentation must not restrict any party from implementing the standard using any form of software license.
- d. The best practice is for software reference platforms to be licensed in a way that is compatible with all forms of software licensing, both Free Software (Open Source) and proprietary. However, see Predatory Practices regarding license restrictions that may be appropriate for a software reference platform.



# Practise – ii

## 2. Maximize End-User Choice

Open Standards create a fair, competitive market for implementations of the standard.

Thus:

- a. They must allow a wide range of implementations, by businesses, academia, and public projects.
- b. They must support a range of pricing from very expensive to zero-price.

# Practise – iii

## 3. No Royalty

Open Standards are free for all to implement, with no royalty or fee. Certification of compliance by the standards organization may have a fee.

Thus:

- a. Patents embedded in standards must be licensed royalty-free, with non-discriminatory terms.
- b. Certification programs should include a low or zero cost self-certification, but may include higher-cost programs with enhanced branding.

# Practise – iv

## 4. No Discrimination

Open Standards and the organizations that administer them do not favour one implementor over another for any reason other than the technical standards compliance of a vendor's implementation. Certification organizations must provide a path for low and zero-cost implementations to be validated, but may also provide enhanced certification services.

Thus:

A standards organization that wishes to support itself through certification branding should establish a premium track and a low-cost or zero-cost track. Generally, the premium track will provide a certification lab outside of the vendor's facility to verify a vendor's implementation and enhanced branding: a certification mark that indicates a greater certainty of verification and financial support of the standard. The low or zero-cost track would provide self-certification by the vendor and baseline branding.

# Practise – v

## 5. Extension or Subset

Implementations of Open Standards may be extended, or offered in subset form. However, certification organizations may decline to certify subset implementations, and may place requirements upon extensions

# Practise – vi

## 6. Predatory Practices

Open Standards may employ license terms that protect against subversion of the standard by embrace-and-extend tactics. The license may require the publication of reference information and an license to create and redistribute software compatible with the extensions. It may not prohibit the implementation of extensions.

The standards organization may wish to apply an agreement similar to the Sun Industry Standards Source License to the standard documentation and its accompanying reference implementation. The Sun agreement requires publication of a reference implementation (not the actual commercial implementation) for any extensions to the standard. This makes it possible for a standards organization to actively preserve interoperability without stifling innovation.

# Definitions

- Open Source
- Free Software
- Open Standards
- Defacto Standards
- DeJure Standards
- Proprietary Standards

# What is Open Source

- Open source doesn't just mean access to the source code.
- Ten Points to what Open Source means:
  - 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. The License Must Not Restrict Other Software
  - 10. The License must be technology-neutral

# Explanation – Open Source (1)

## 1. 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.

Rationale: By constraining the license to require free redistribution, we eliminate the temptation to throw away many long-term gains in order to make a few short-term sales dollars. If we didn't do this, there would be lots of pressure for cooperators to defect.



# Explanation – Open Source (2)

## 2. Source Code

The program must include source code, and must allow distribution in source code as well as compiled form. Where some form of a product is not distributed with source code, there must be a well-publicized means of obtaining the source code for no more than a reasonable reproduction cost—preferably, downloading via the Internet without charge. The source code must be the preferred form in which a programmer would modify the program. Deliberately obfuscated source code is not allowed. Intermediate forms such as the output of a preprocessor or translator are not allowed.

Rationale: We require access to un-obfuscated source code because you can't evolve programs without modifying them. Since our purpose is to make evolution easy, we require that modification be made easy.

# Explanation – Open Source (3)

## 3. 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.

Rationale: The mere ability to read source isn't enough to support independent peer review and rapid evolutionary selection. For rapid evolution to happen, people need to be able to experiment with and redistribute modifications.

# Explanation – Open Source (4)

## 4. Integrity of The Author's Source Code

The license may restrict source-code from being distributed in modified form only if the license allows the distribution of "patch files" with the source code for the purpose of modifying the program at build time. The license must explicitly permit distribution of software built from modified source code. The license may require derived works to carry a different name or version number from the original software.

Rationale: Encouraging lots of improvement is a good thing, but users have a right to know who is responsible for the software they are using. Authors and maintainers have reciprocal right to know what they're being asked to support and protect their reputations.

Accordingly, an open-source license must guarantee that source be readily available, but may require that it be distributed as pristine base sources plus patches. In this way, "unofficial" changes can be made available but readily distinguished from the base source.

# Explanation – Open Source (5)

## 5. No Discrimination Against Persons or Groups

The license must not discriminate against any person or group of persons.

Rationale: In order to get the maximum benefit from the process, the maximum diversity of persons and groups should be equally eligible to contribute to open sources. Therefore we forbid any open-source license from locking anybody out of the process.

Some countries, including the United States, have export restrictions for certain types of software. An OSD-conformant license may warn licensees of applicable restrictions and remind them that they are obliged to obey the law; however, it may not incorporate such restrictions itself.

# Explanation – Open Source (6)

## 6. No Discrimination Against Fields of Endeavor

The license must not restrict anyone from making use of the program in a specific field of endeavor. For example, it may not restrict the program from being used in a business, or from being used for genetic research.

Rationale: The major intention of this clause is to prohibit license traps that prevent open source from being used commercially. We want commercial users to join our community, not feel excluded from it.

# Explanation – Open Source (7)

## 7. Distribution of License

The rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties.

Rationale: This clause is intended to forbid closing up software by indirect means such as requiring a non-disclosure agreement.

# Explanation – Open Source (8)

## 8. License Must Not Be Specific to a Product

The rights attached to the program must not depend on the program's being part of a particular software distribution. If the program is extracted from that distribution and used or distributed within the terms of the program's license, all parties to whom the program is redistributed should have the same rights as those that are granted in conjunction with the original software distribution.

Rationale: This clause forecloses yet another class of license traps.

# Explanation – Open Source (9)

## 9. The License Must Not Restrict Other Software

The license must not place restrictions on other software that is distributed along with the licensed software. For example, the license must not insist that all other programs distributed on the same medium must be open-source software.

Rationale: Distributors of open-source software have the right to make their own choices about their own software.

Yes, the GPL is conformant with this requirement. Software linked with GPLed libraries only inherits the GPL if it forms a single work, not any software with which they are merely distributed.



# Explanation – Open Source (10)

## 10. The License must be technology-neutral

No provision of the license may be predicated on any individual technology or style of interface.

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