السلام عليكم

peace be upon you

Free & Open Source Software Awareness
Terms & Things to Know Before Jumping on the Bandwagon

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Overview

- **Definitions of Open Source Software**
- **Open Source Initiative: The Open Source Definition**
- **Types of Software Licensing**
- **Direction on OSS Implementation**
- **Approach of OSS Initiative**

Definitions of Open Source Software

- Open source software is similar in idea to *free software* but slightly less rigid than the free software movement. Users of open source software are (generally) able to view the source code, alter and re-distribute open source software.

- There is however less of an emphasis in the open source movement on the right of information and source code to be free and in some cases companies are able to develop proprietary products based on open source ones.

- In general, open source refers to any program whose source code is made available for use or modification as users or other developers see fit. (Historically, the makers of proprietary software have generally not made source code available.)

- Open source software is usually developed as a public collaboration and made freely available.

Definitions of Open Source Software

- Computer software source code that is released under an open-source license or to the public domain. Open source licenses include the **GNU** General Public License and **BSD** License.
- Popular open-source software includes: Apache, PHP, Mozilla Firefox and the Linux kernel.
- Programs are provided with source codes, giving users
  - **Freedom to run** the program, for any purpose
  - **Freedom to adapt** the program to their needs and release improvements
  - **Freedom to redistribute** copies

Note:

    GNU   GNU's Not Unix

    BSD   Berkeley Software Distribution

Open Source Initiative: The Open Source Definition

Open Source Initiative are the stewards of the **Open Source Definition (OSD)** and the community-recognized body for reviewing and approving licenses as OSD-conformant. Visit them at `http://opensource.org`.

- **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:** 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.

Open Source Initiative: The Open Source Definition

- **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.

- **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.

- **No Discrimination Against Persons or Groups:** The license must not discriminate against any person or group of persons.

- **No Discrimination Against Fields of Endeavour:** The license must not restrict anyone from making use of the program in a specific field of endeavour. For example, it may not restrict the program from being used in a business, or from being used for genetic research.

Open Source Initiative: The Open Source Definition

- **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.

- **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.

- **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.

- **License Must Be Technology-Neutral:** No provision of the license may be predicated on any individual technology or style of interface.

Types of Software Licensing

- **GNU General Public License:** Modifications to software **MUST** be made open sourced if software is distributed
- **BSD License:** Software **does not** need to be made open sourced after modifications
- **Public Domain Software:** Free software, not protected by copyright, not subject to license, can be used, modified, integrated into other programs and distributed without restriction (subject to patent rights)
- **Shareware:** Software delivered without charge but continued usage is subject to payment
- **Freeware:** Proprietary software that can be used at no cost subject to license restrictions
- **Proprietary Software:** Restricted use, fee-based software

Direction on OSS Implementation

OSS Objectives

- Reduce total cost of ownership
- Increase freedom of choice of software usage
- Increase interoperability among systems
- Increase growth of ICT industry
- Increase growth of OSS user and developer community
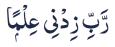- Reduce digital divide

Guiding Principles

- Fit for purpose
- Least disruptive to organization operations
- Co-exist with other legacy proprietary systems
- Leverage on existing facilities, hardware, software and expertise in private sector, universities, ICT organizations and government agencies
- Not driven or controlled by hardware or software vendor

Approach of OSS Initiative

- Develop and execute the **OSS Implementation Plan**
  - Define the thrust areas, implementation strategies, quick-win pilots and prioritized actions to be taken based on immediate, mid- and long-term goals
  - Chart the strategic direction and framework for OSS implementation in an academic institution environment
  - Outline strategy to develop required OSS skills
  - Recommend policy and guideline on OSS implementation
  - Identify financial, technical and legal requirements and implications for OSS implementation
- Establish an **OSS Competency Centre** to support OSS implementation
  1. Computer Laboratory
     Marine Technology Centre
     UTM, Skudai
  2. Computer Laboratory
     School of Graduate Studies, Razak Tower,
     UTM, Kuala Lumpur
  3. OSCAE.Initiative Laboratory (C24-407)
     Faculty of Mechanical Engineering
     UTM, Skudai

- . . . and I end my presentation with two supplications

رَّبِّ زِدْنِي عِلْمًا

my Lord! increase me in knowledge

(Taa-Haa (20):114)

اَللّٰهُمَّ اِنَّا نَسْئَلُكَ عِلْمًا نَافِعًا

O Allah! We ask You for knowledge that is of benefit

(ibn Majah)