

Open Source Software

International Open Access Week at the Library @NU



A laptop screen is shown in the background, displaying a line graph with a blue line and a pie chart. The screen is dimly lit, and the text is overlaid in white. The line graph has a label '19 av.' and the pie chart is blue and green.

Quote:

Open source is a development methodology;
free software is a social movement.

(Richard Stallman)

What is Open Source Software?

First of all what is:

- Software?
 - Source?
 - Open?
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A close-up photograph of a person's hands using a pen to write on a tablet. The word "Software" is overlaid in large white text on the left side of the image. The background is dark and out of focus, showing some bokeh light effects.

Software

Computer programme or software is a set of instructions to computer to work in a desired manner

A close-up photograph of a person's hands using a drafting tool, possibly a compass or divider, on a light-colored surface. The background is blurred, showing some bokeh lights. The image is partially obscured by a blue vertical bar on the right side.

Source

A text listing of commands to be compiled or assembled into an executable computer program.

A photograph of a person's hands using a pen to write on a document. The image is dimly lit, with a blue overlay on the right side. The word "Open" is written in white text over the left side of the image.

Open

Here the original source code of the software is given. Then, if required, one can modify it and compile the software to use it. Thus the Source Code is OPEN for everyone.

Open Source Software

- Thus, Open Source Software is a software for which the underlying programming code is also available to the users.
 - They may read it, make changes, and build new versions of the software incorporating their changes.
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Open Source Initiative (OSI)

- The Open Source Initiative (OSI) is a non-profit corporation formed to educate about and advocate for the benefits of open source and to build bridges among different constituencies in the open-source community.
 - <http://www.opensource.org/>
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Open Source Software

- Open source is a development method for software that harnesses the **power of distributed peer review** and **transparency of process**.
 - The promise of open source is **better quality, higher reliability, more flexibility, lower cost,** and **an end to predatory vendor lock-in.**
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Open Source Licenses

- Open Source license does not just mean access to the source code - it has to meet other criteria as well.
 - The important issue is that the source code should be available, there should be permission to modify it and further distribute it.
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Open Source Definition

- Free Redistribution
 - Source Code
 - Derived Works
 - Integrity of the Author's Source Code
 - No discrimination against the persons or groups
 - No discrimination against fields of endeavour
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Open Source Definition

- Distribution of license
 - License must not be specific to a product
 - License must not restrict other software
 - License must be technology-neutral
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Open Source Software vs. Free Software

- Free software movement was launched in 1983.
 - In 1998 a splinter group of this movement advocated that the term “free” software should be replaced by “open source” software.
 - Problem with “free” was that it implied “zero cost” and not the intended meaning “freedom”.
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Free Software

- The freedom to run the program for any purpose (**freedom 0**).
 - The freedom to study how the program works, and change it to make it do what you wish (**freedom 1**). Access to the software is a precondition for this.
 - The freedom to redistribute copies so you can help you neighbour (**freedom 2**).
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Free Software

- The freedom to improve the program, and release your improvements (and modified versions in general) to the public, so that the whole community benefits (**freedom 3**). Access to the source code is a precondition for this.
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Open Source Software vs. Free Software

- Are they different?
 - No
 - Open Source Software and Free Software for all practical purposes are same
 - But “free” here actually means “Freedom” not “free of cost”
 - “Free User” rather than “Free Software”
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Freeware vs. Free Software

- Are they same?
 - No
 - “Zero Cost” is not the criteria for Free Software
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Myths about Open Source

- No control
 - Open = Unsafe
 - Everything is free
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Open Source Software Tools used @NU

- CMS: Wordpress, Drupal
 - API: JQuery, jqwidget, Dojo Toolkit
 - DMS: MySQL, PostgreSQL
 - Other: Moodle, Ubuntu, Eclipse, NetBeans, BIRT, DSpace, OTRS, Mozilla Firefox, FireBug, WinSCP, Putty, Notepad++, 7-zip
 - Apache: Subversion, Tomcat HTTP Server, Directory Studio, etc.
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Free Software Tools used @NU

- My SQL Developer
 - Google Chrome
 - dbForge Studio
 - RedHat server
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Credits

- To Sukhdev Singh (sukhi@nic.in)
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