

Certificate Course in Free Software

Session-1: Introduction to Free Software

C-DIT

2020-12-10

What is free software

- Free Software is a matter of liberty not price !
- The four freedoms of free software
 - Freedom 0: Freedom to *run the program as you wish, for any purpose*
 - Freedom 1: Freedom to *study the program*
 - Freedom 2: Freedom to *redistribute verbatim copies*
 - Freedom 3: Freedom to *redistribute modified copies*

Origins and History

- CONTU 1974
- Richard Stallman
- The *GNU* Project 1983
- The *Free Software Foundation* 1985
- *Linus Torwarlds* publishes the *Linux* Kernel 1991

Proprietary, Freeware, Shareware

- Proprietary Software
- Freeware
- Freemium
- Shareware

People in FOSS

Richard Stallman- Founder of the free software movement and the GNU project



Richard Stallman

People in FOSS

Linus Torwarlds - Founder of the
Linux Kernel used in popular
GNU/Linux operating systems.



Linus Torwarlds

People in FOSS

Eric Raymond - Founder of
the Open Source Initiative



Eric S Raymond

People in FOSS

Ian Murdock - Founder of Debian
GNU/Linux operating system.

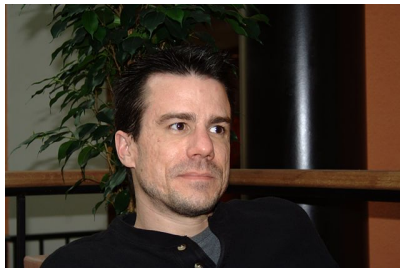


Photo of Ian Murdock- Attribute:
"Ilya Schurov, Computerra Weekly"

People in FOSS

Aaron Swartz - Famous internet programmer and hacktivist.



Aaron Swartz

People in FOSS

Lawrence Lessig - Founder of Creative Commons.



Lawrence Lessig

People in FOSS

- Mark Shuttleworth (Founder- Ubuntu GNU/Linux)
- Larry Wall (Founder -PERL Programming Language)
- Guido van Rossum (Founder - Python Programming language)
- Rasmus Lerdorf (Founder - PHP Programming language)
- And more...

New Terms: OpenSource, FOSS, FLOSS

- Cathedral and Bazaar development models
- Open Source Initiative
- Open Source Definition
 - Free Redistribution
 - Source Code
 - Derived Works
 - Integrity of the author's source code
 - No Discrimination Against Persons or Groups
 - No Discrimination Against Fields of Endeavor
 - Distribution of License
 - License must not be specific to a product
 - License must not restrict other software
 - License must be technology-neutral

OpenSource vs/and FreeSoftware

- Differences in the community
- FOSS
- FLOSS

Major organizations promoting FOSS



FSF

Major organizations promoting FOSS



Major organizations promoting FOSS

Electronic Frontier Foundation

<https://www.eff.org>



- International Digital rights group
- Promotes internet civil liberties
- Founded in 1990

Major organizations promoting FOSS

Digital Freedom Foundation

<https://digitalfreedomfoundation.org/>

- Freedom day events organized by DFF:
 - Education Freedom Day (third Saturday in January)
 - Document Freedom Day (last Wednesday of March)
 - Hardware Freedom Day (third Saturday in April)
 - Culture Freedom Day (third Saturday in May)
 - Software Freedom Day (third Saturday in September)

DFF India: <https://dff.org.in/>

Major organizations promoting FOSS

Open Source Initiative (OSI)

<https://opensource.org>

- Founded in 1998 by Bruce Perence and Eric Raymond
- Developed the open source definition



Major organizations promoting FOSS

Software Freedom Law Centre (SFLC)

<https://softwarefreedom.org>

- Founded in *Feb 2005* by *Eben Moglen*
- Provides legal representation to not-for-profit organizations
- Patent Defence
- Stands for protection of free software licenses
- FSF vs Cisco 2008
- Services offered
 - Public Education
 - Consulting and training : FOSS Legal issues

Major organizations promoting FOSS

The Linux Foundation <https://www.linuxfoundation.org>



- Founded in 2000 as a merger of Open source development labs and the free standards group
- Linux standardization, support and commercialization
- Hosts and promotes collaborative development of open source projects
- Major Projects: Linux kernel, Hyperledger, Kubernetes, Nodejs, Tizen, Xen

Major organizations promoting FOSS

Software in the Public Interest (SPI)

<https://www.spi-inc.org>



- Non-Profit corporation acting as a fiscal sponsor of organizations that develop opensource software and hardware
- Founded in 1997 initially to fund Debian projects
- Major projects associated with SPI include *Arch Linux*, *LibreOffice*, *Postgresql* etc

Major organizations promoting FOSS

Apache Software Foundation

<https://apache.org>



- American non-profit founded in 1999
- Apache Licenses and Apache webserver
- Creates and maintains 300+ Apache projects and their communities
- ApacheCon : Global conference of the ASF.

Major organizations promoting FOSS

OpenStreetmap Foundation

See <https://www.openstreetmap.org/> and
https://wiki.osmfoundation.org/wiki/Main_Page



OpenStreetmap Logo

- Non-profit founded in 2006 to support and enable freely reusable geospatial data

Major organizations promoting FOSS-OKF

Open Knowledge Foundation

<http://okfn.org/>



OKF Logo - CC-BY-4.0

- Non-profit founded in **May 2004** by **Rufus Pollock**
- To promote and share information at no charge, including both content and data.

Major organizations promoting FOSS-OKF

Open Knowledge Foundation Events

- OKCon
- International Open Data Day

Projects of Open Knowledge Foundation

- CKAN
- Data Hub
- OpenBibliography
- OpenEconomics
- OpenGLAM

Protective Free Software Licenses

- Protective License (Copyleft)



Copyleft symbol

- Strongly Protective
- Weakly Protective

Strongly Protective Free Software Licenses

- GNU General Public License (GPL)
- GNU Affero General Public License (AGPL)
- Design Science License



Weakly Protective Free Software Licenses

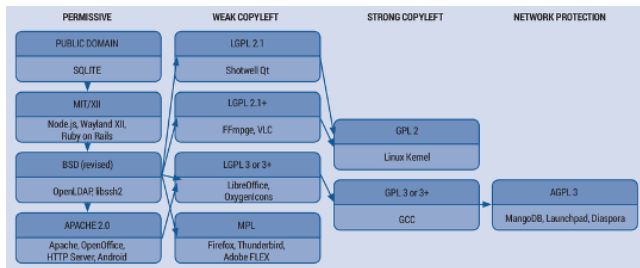
- GNU Lesser General Public License (LGPL)
- Mozilla Public License (MPL)



Permissive Free Software Licenses

- GNU All Permissive License
- MIT License
- BSD Licenses
- Apache License
- Software in Public Domain

License Compatibility Matrix



License compatibility between common FOSS software licenses according to David A. Wheeler (2007): the vector arrows denote a one directional compatibility, therefore better compatibility on the left side ("permissive licenses") than on the right side ("copyleft licenses").

Free Documentation Licenses

There are separate licenses for documentation works.

- GNU Free Documentation License (FDL)
- FreeBSD Documentation License
- Apple's Common Documentation License v1.0
- Open Publication License v1.0

License for other works

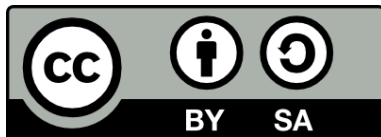
- License for Fonts
 - GPL
 - Arphic Public License
- License for works stating a viewpoint
 - GNU Verbatim copying license
 - CC BY-ND
- License for designs of physical objects
 - GPL v3
 - CC BY
 - CC BY SA
 - CC 0

Creative Commons Licenses CC BY



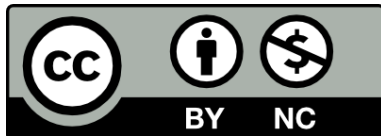
CC-BY Permits reuser to distribute, remix, adapt, and build upon in any medium/format, allows commercial use, attribution(credit) must be given to the creator

Creative Commons License CC BY SA



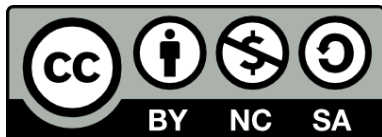
CC-BY-SA License permits the same terms and condition as CC-BY with a restriction(SA-Share Alike) that adaptations must be shared under the same terms.

Creative Commons License CC BY NC



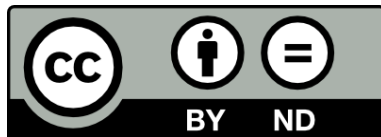
CC-BY-NC license permits the same terms as CC-BY but no commercial use is permitted.

Creative Commons License CC BY NC SA



CC-BY-NC-SA permits the same terms as given by CC-BY-NC with the restriction of Share Alike(SA) ie derivatives should be shared under the same terms.

Creative Commons License CC BY ND



CC-BY-ND allows reusers to copy and distribute the material in any medium or format in unadapted form only. attribution should be given. Commercial use allowed.

Creative Commons License CC 0



CC-Zero allows reusers to distribute, remix, adapt, and build upon the material in any medium or format, with no conditions.