# Open Source Software

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- Open-source software (OSS) is computer software with its source code made available with a license in which the copyright holder provides the rights to study, change, and distribute the software to anyone and for any purpose.

- The fundamental purpose of open source licensing is to deny anybody the right of exclusively exploit a work. The idea is to permit such work to reach a broad audience.

- In contrast to other type of intellectual work, software has a function and is dynamic. Functional in the sense that it does work and dynamic in the sense that it might evolve and perform the same functions in a different context. (For example an OS).

- In the closed-source software the user obtains a physical copy of the software and the right to use the software for the intended purpose.

- There are many open source license. One of them is the General Public License (GPL). Some of this licenses have the constraint that any development or application derived from the software must be put under the same license.
- OSS took off in the late 1980's and early 1990's. The creation of an operating system (OS) called Linux was important in the spread of OSS.

Why OSS?

- Is free.
- Reliable.
- Secure.
- Stable (in particular for OS)
- Scalability

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- Other...

# Discussion: Why give software away?

- In general.
- What about the MySQL case. Android?

# A bit of history: Linux... I

- Recall that an operating system (OS) is software that always is running in a computer, and that serves as an intermediary between the different hardware components of a computer and the users of a computer (the users might be humans or other software).

- An OS is composed of a kernel and several other programs.

- Linux (in particular its kernel) was created by Linus Torvals while working in his Ph.D. dissertation.

- Linux is a decendant of another operating system: Unix.

## A bit of history: Linux... II

- Unix goes back to the 1960's. Its development was very important since many important concepts about the functions of an OS were given thought at that time. Even important programming languages, like C, stem from those efforts.

- Regarding Unix is difficult to overestimate the importance of the work of Dennis Ritchie and Ken Thompson.

- Check the following timelines:
  - http://www.computerhope.com/history/unix.htm
  - http://www.suramya.com/blog/2006/12/linux-distro-timeline/
  - Unix entry in Wikipedia.