How to Understand

Free & Open Source Software

A visual guide by Martin Owens
Why Does it Exist

The ideas of Free and Open Source software are driven by the social and political ideals of Free Software, defined by the four kinds of freedom, for the users of the software:

1. Control - Freedom to run the software, for any purpose.
2. Education - Freedom to study how the program works, and change it to make it do what you wish.
3. Consideration - Freedom to redistribute copies so you can help your neighbour.
4. Collaboration - Freedom to improve the program, and release your improvements for the betterment of the whole community.

Think Free as in speech, not free as in money.

The Free Software Definition, Free Software Foundation
http://www.fsf.org/
How it Works

The ideals of Free Software are the right reasons, but reasons alone aren't enough to make good software that respects user's freedoms.

We use a most effective economic commons system called Open Source to organise the work and together we get FOSS:
The Commons

Resources that are accessible to everyone, regardless of country or ability to pay.
The Commons

These resources can be anything. The Creative Commons is for all types of creative works.
The Commons

Everyone can make copies of anything in the Creative Commons.
The Commons

Everyone can add anything to the Creative Commons.
The Commons

Everyone can learn from the Creative Commons.
The Commons

Anyone can share the Creative Content with anybody else.
The Commons

Because the source is available, anyone can build on other works to create new "derivative" works.
The Internet

The Internet allows this free exchange of ideas and creative works across the whole world.
Closed Source

Closed source is the same as Non-Free. It is the creation of content as a private property freely accessible only to the owner (company or person).
The Private Property model does not allow normal users to share, build upon or learn from the work. Each user is divided.
Closed Source

The user has only one right, the right to use. The only option is to find or create a completely different alternative.
FOSS

That is why FOSS is a Commons system*, not a Private Property system. This has some implications....

* also sometimes known as 'copy-left'
Once Created

Once software has been created and placed into the Commons
It can be used by anyone, for any reason, at any time.
The number of copies is never limited.
Creation Costs

But software creation, new features and bug fixes do cost resources (money, time, etc).

FOSS Commons

Paid Programmer

Time costs money

Volunteer Programmer

Software download does not cost money
Creation Costs

Compared to the costs of closed source.

Time is paid for by investment from the owners. Users uninvolved.

Every copy costs money
Paying the Costs

Supporting development costs requires resources.
Example:

Programmer (needs feature)
Programmer (ready to work)
User (needs feature)
User (needs feature)
User (needs nothing)

FOSS Commons
Enlightened Self Interest

A skilled programmer with access to the source code can serve her own needs, giving back to the community in the process.
Employed

An organisation can use an employee to serve their software development needs in the commons.
Aggregated Funding

If the programmer can aggregate money from multiple users, she can get paid for creating software they need.
Support

Because users get to choose who supports and develops their software, they have the choice of any service supplier.
Programmers, organisations and users are all able to work with each other in a community to further the development. With each contributing member, the pace of development increases.
Standards

The number and variety of people developing FOSS makes it very attractive to use international standards. Facilitating sharing of files, even when using two different programs.
The End

FOSS development has many advantages, hopefully this guide has helped you understand how it works.

Free Software Foundation
http://www.fsf.org/

Creative Commons
http://creativecommons.org/

Open Source
http://www.opensource.org/

Electronic Frontier Foundation
http://www.eff.org/

Learn More

Thank you for reading.

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