

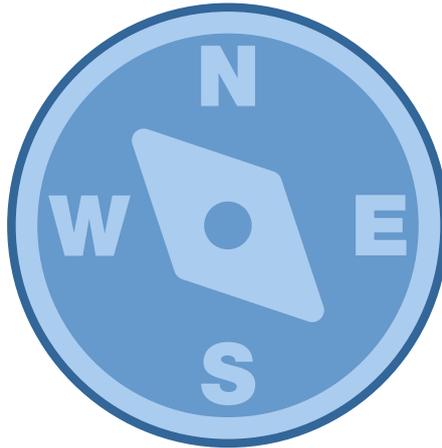
# Free Open Source Software

by Martin Owens



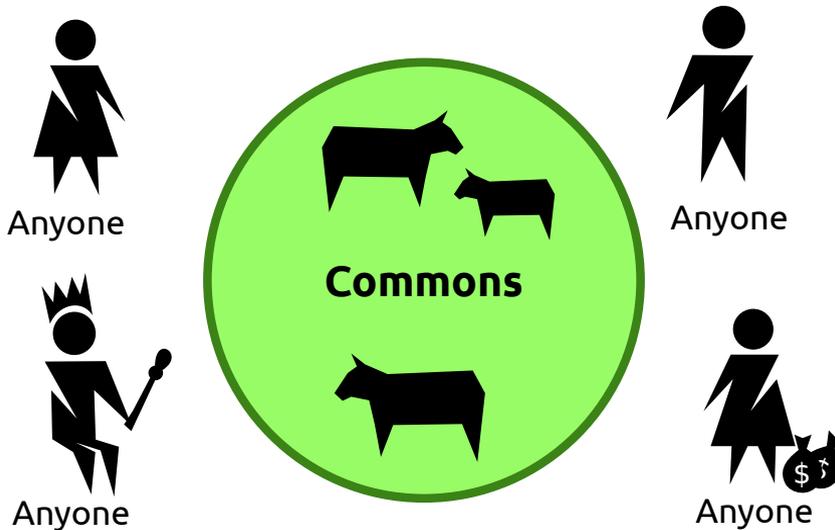
# Bearings

There are some simple but important things to know...



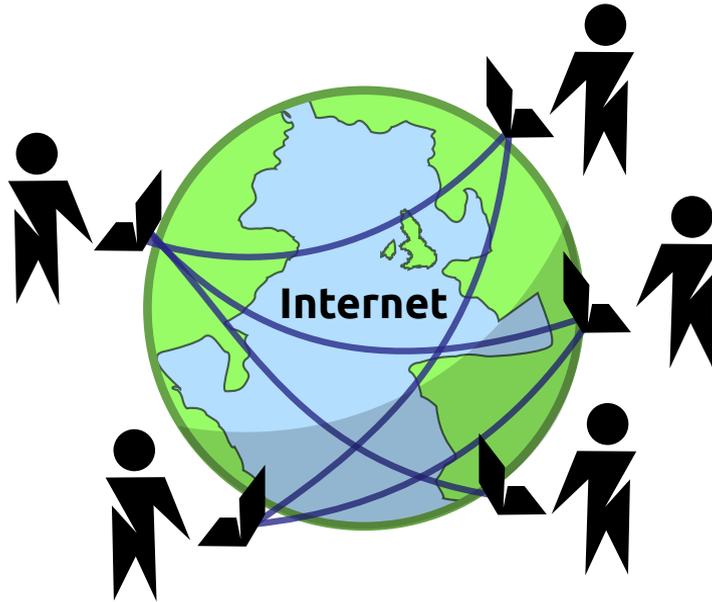
# The Commons

Resources that are accessible to everyone, regardless of ability to pay or social status. Originally used to describe common land where anyone could graze their cattle.



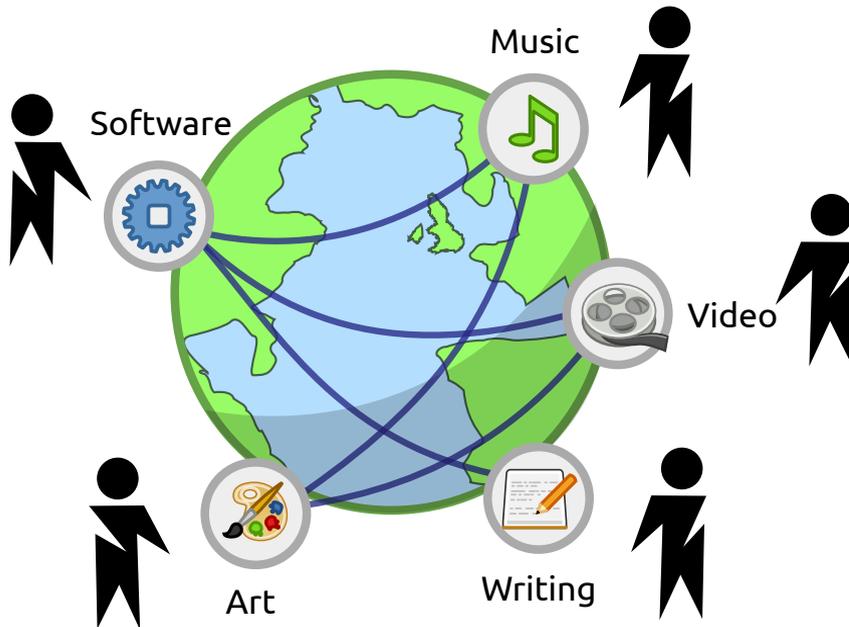
# The Internet

A fair level playing field on the Internet allows the free exchange of ideas across the whole world.



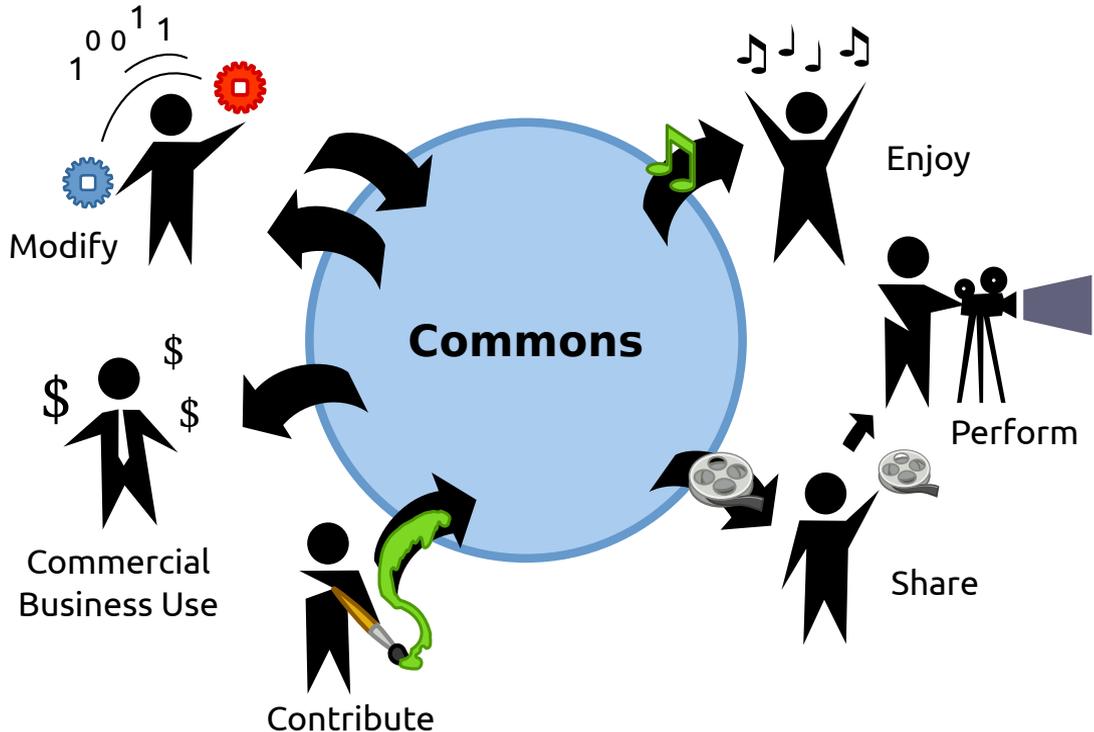
# The Internet's Commons

The internet has its own common resources. All kinds of art and information is placed online and shared around the world.



# Making Use of Creativity

Not everything on the Internet is in the commons. But the following permissions should all be available for real common resources.

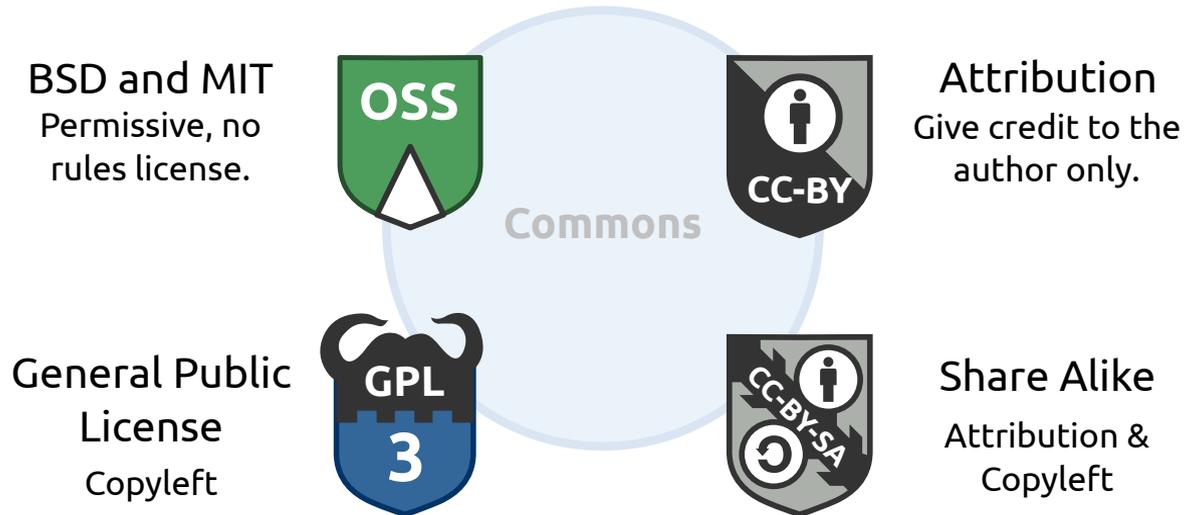


# Copyright Protection

Copyright is still used for these works, but instead of "all rights reserved" the works use rules that give users freedom when they are followed.

## Computer Software

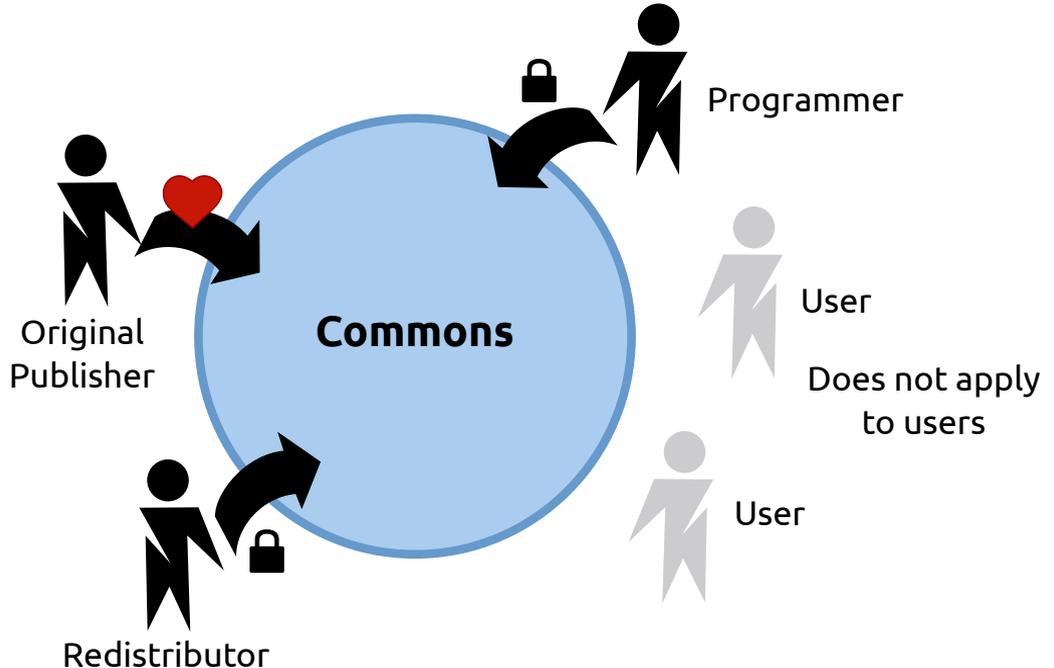
## Other Media



*See [fsf.org](http://fsf.org) and [creativecommons.org](http://creativecommons.org) for more details.*

# Copyleft

Requires all people who modify and distribute the work to publish that work back into the commons using the same license.



# How Can Media be Free?

Online information is fundamentally unlike physical products. It doesn't follow the same rules and needs special businesses to work.



## Non-Rivalrous

One person's use does not prevent others from using the same product in the same way.

## Freely Distributable

Copying on the internet costs nothing.



## Non-Excludable

It is not possible to stop people from using it without paying first.

## Single Creation

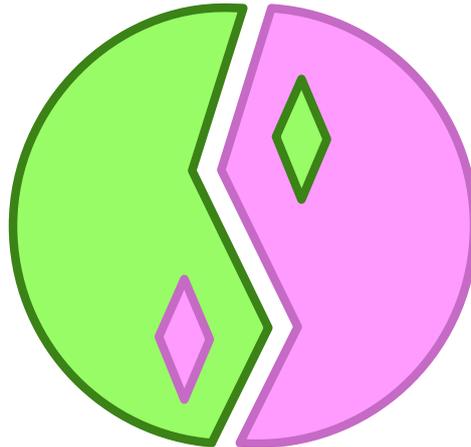
Once the product is created, it doesn't ever need to be created again.

# Not all software is the same

Let's take a look at each of these software models

**Free and Open  
Source software**

In the Commons

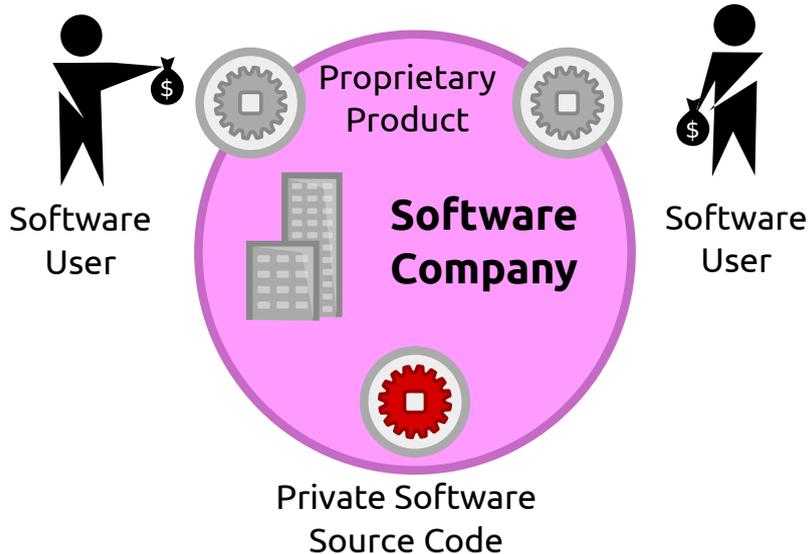


**Proprietary  
Software**

Not in the Commons

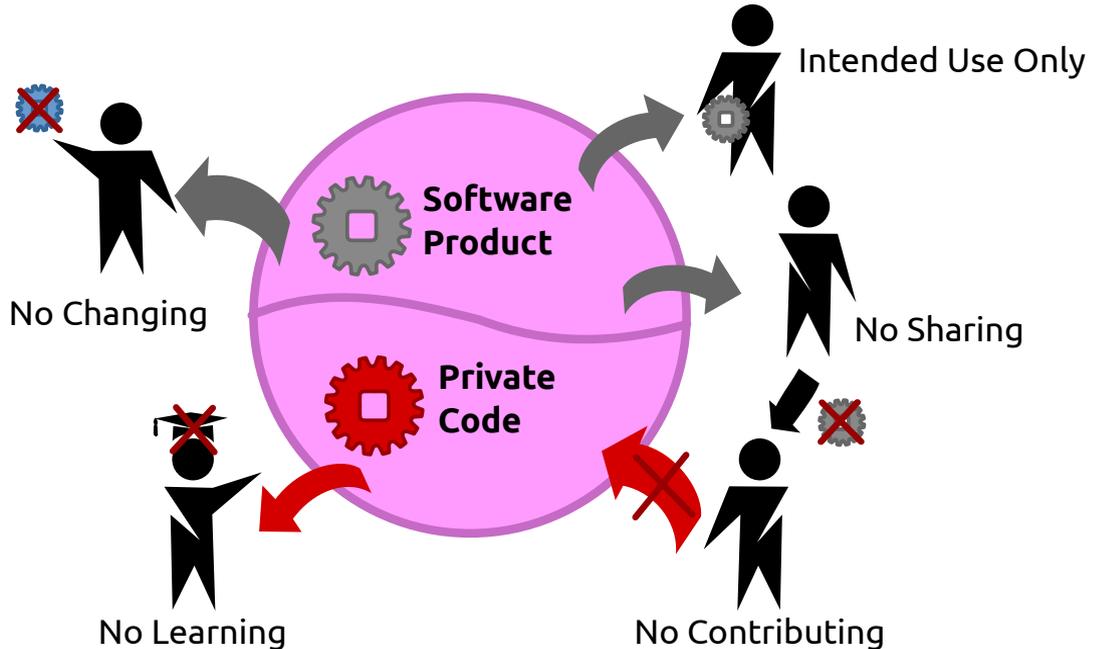
# Proprietary Software

Proprietary software companies create code which only the company can modify and redistribute. They then sell copies of limited use compilations under licenses that restrict user's freedom.



# User Limits

This way of making software does not allow normal users to share, build upon or learn from the work. Users must agree to terms and conditions that restrict ownership of the thing they've paid for.



# Proprietary Problems

The private nature of the code and lack of freedom for users causes all sorts of unintended consequences.

## Vendor lock-in

Users are locked into one supplier, even for support and security fixes.

## Hidden Interfaces

Complex plugs which other companies aren't allowed to understand, stopping interoperability.

## Abandonware

Companies that fail leave users with unsupported and locked down software.

## File Formats

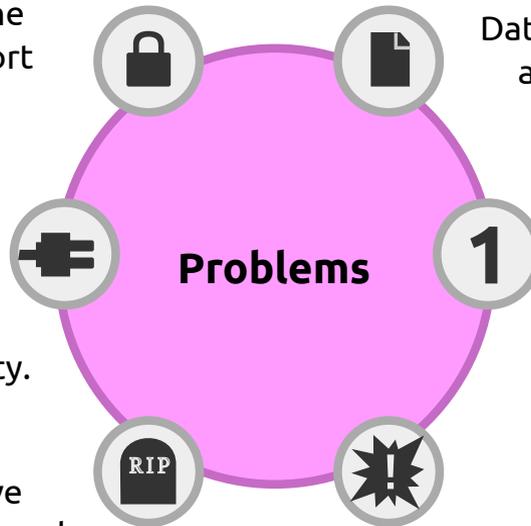
Data is lost when users can't access the program it was created with.

## Monopoly

Often network effects cause only one viable business to be available.

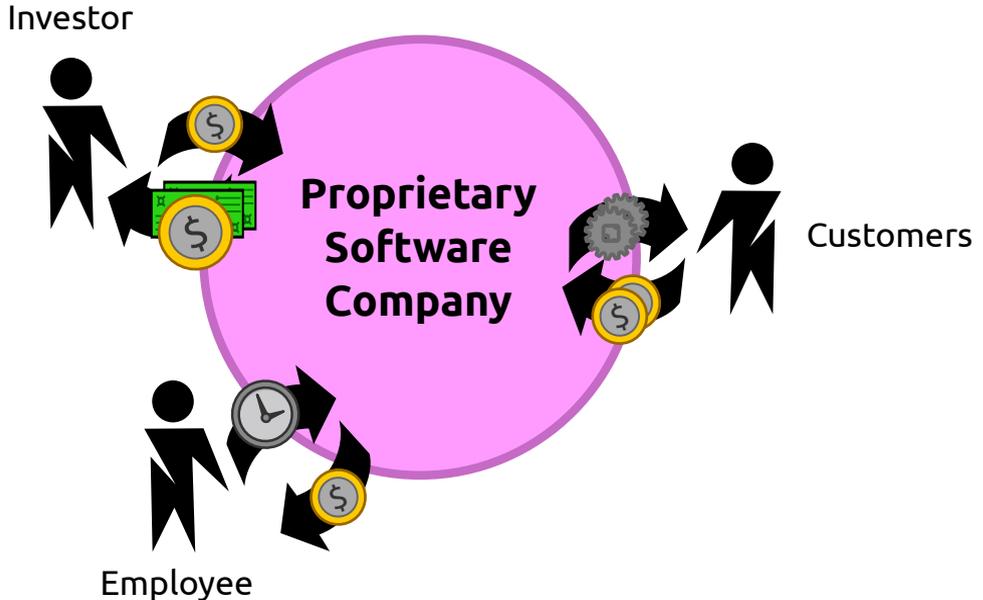
## Hidden Defects

Without peer review software defects can exist for years



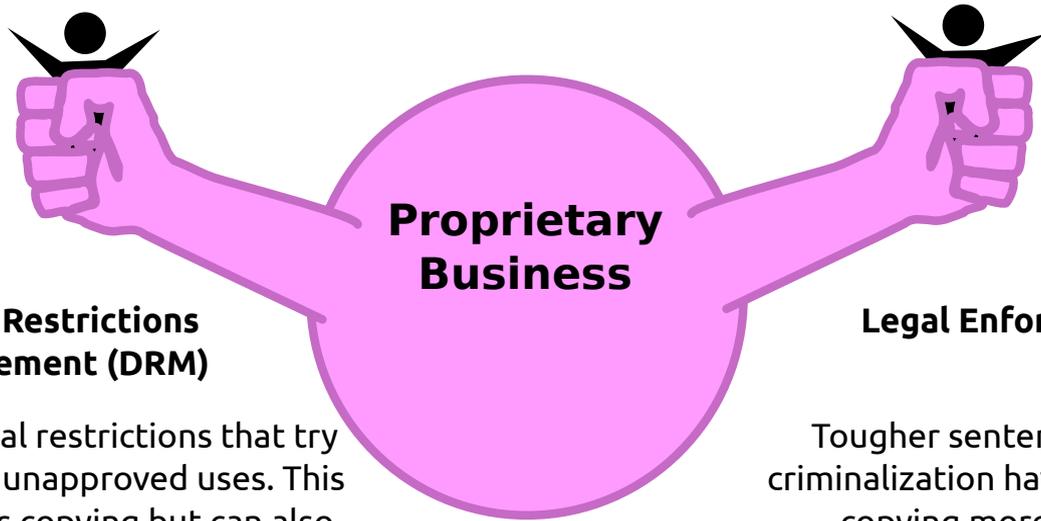
# Proprietary Economy

In these companies developers are paid by investment, which is recouped through selling the same result over and over.



# But This is Broken

As we've learned, software doesn't work like a normal product so these companies use far-reaching tactics to break the nature of software:



## Digital Restrictions Management (DRM)

Technical restrictions that try to stop unapproved uses. This includes copying but can also force other rules like watching adverts on DVDs.

## Legal Enforcement

Tougher sentences and criminalization have made copying more harshly punished than many more serious offences.

# Instead of Fighting Nature

Free and Open Source Software, unlike Proprietary software, is a way to pay for and get paid for software to be made working with the nature of media instead of against it.

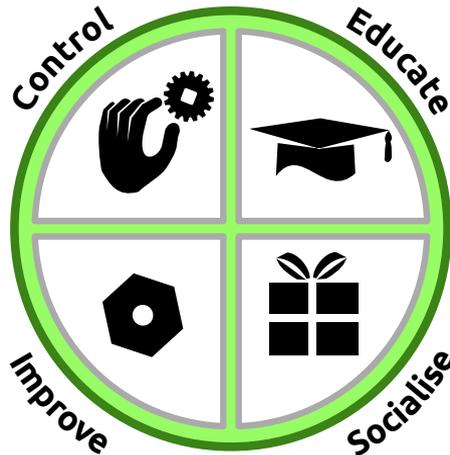


# Free Software Rights

"Free Software" is driven by the ideals defined by the four freedoms. It is vital that all software give users these freedoms as a social and political necessity in order for users to have free speech.

**1** Use for any purpose without exception.

**3** Change the software in any way.

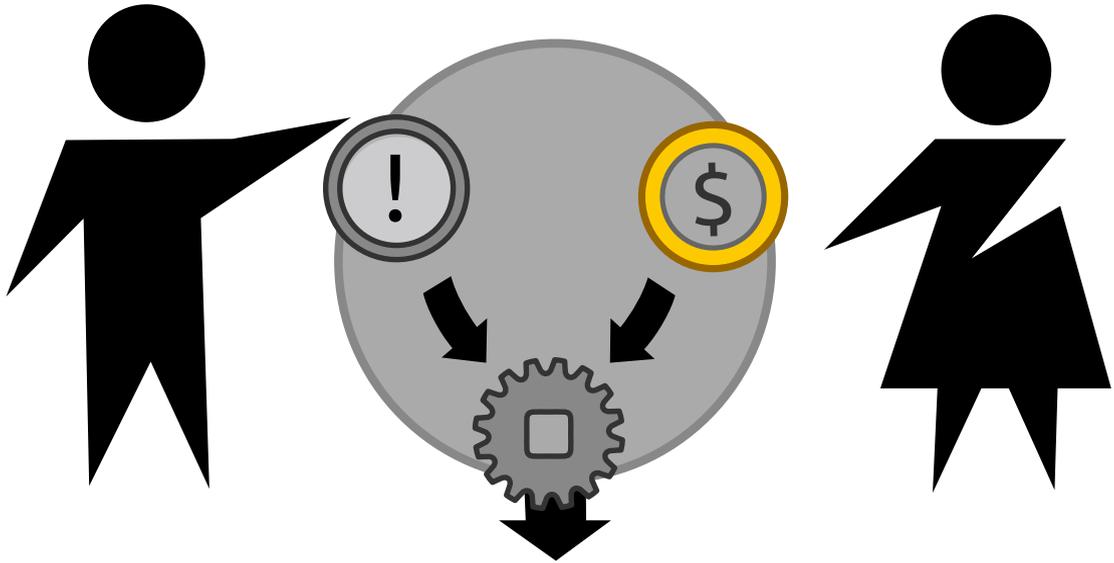


Study how the source code works. **2**

Share the software and any changes. **4**

# Open Source Practicalism

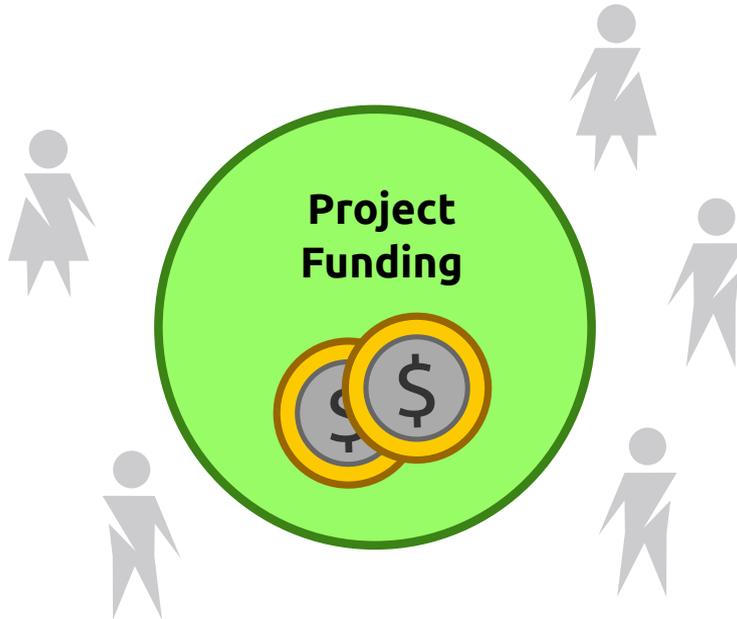
Open Source is concerned with developing software in the most efficient and effective way. It promotes opening code to reduce costs and allow shared responsibility and liabilities.



Free Software and Open Source are two sides of the same philosophy.

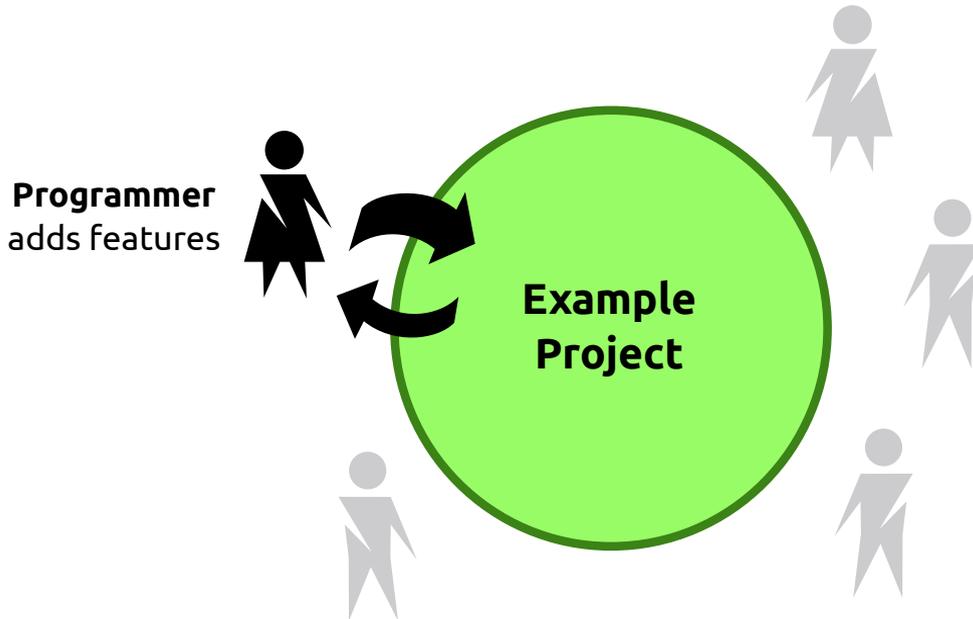
# Making Money with FOSS

If proprietary software has so many problems, how can Free and Open Source make money? Here are some of the many ways to get paid writing software.



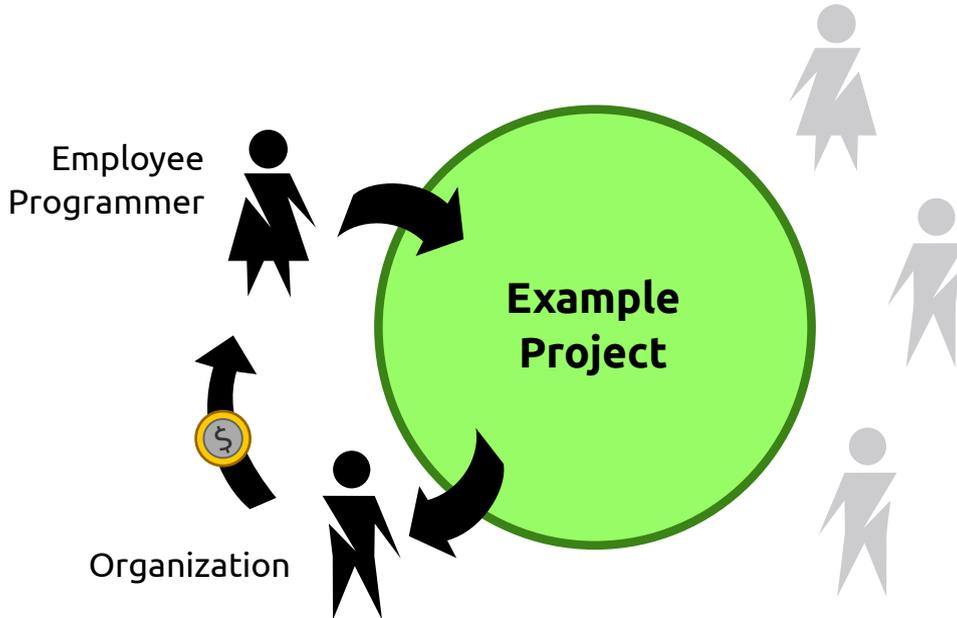
# Enlightened Self Interest

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



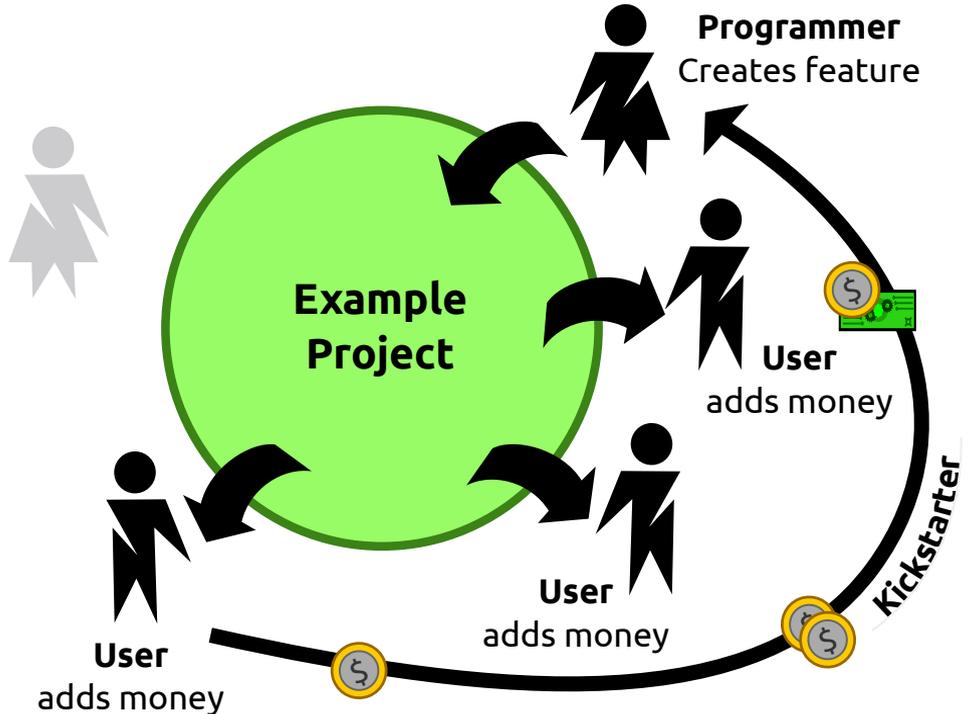
# Employment

An organization can use an employee to serve their software development needs in the software community.



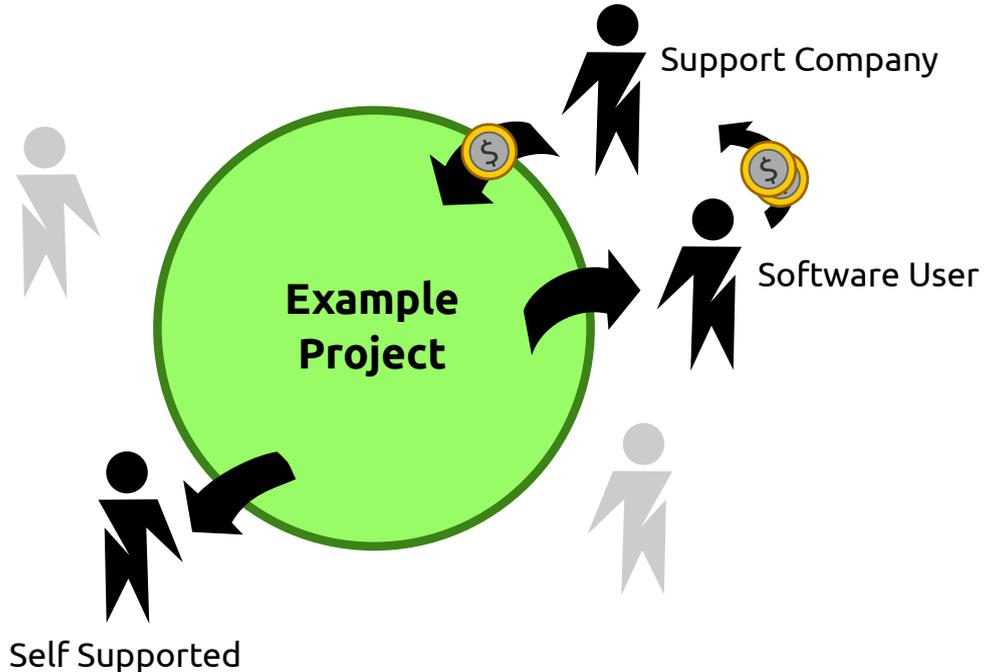
# Crowd Funding

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



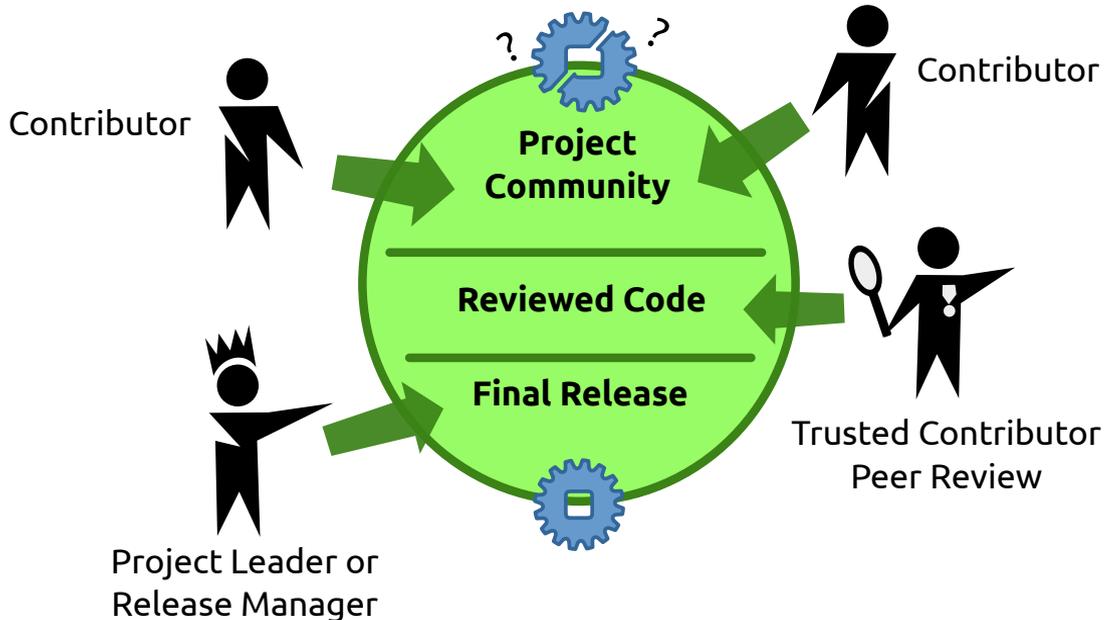
# Support Funding

Since users can choose who supports their software when things go wrong, a support company has an interest in the software's improvement and will invest into it.



# Working on Open Projects

Development of a project happens in an online community where activities can be co-ordinated. These communities have people who control what modifications get into public releases.



# But How does it not fall apart?

People with different objectives may not always work well together. In the community each participant is responsible for making sure they work well with everyone else and keep forking to a minimum.



## Forking

When programmers take the software and create a new project to go in a direction which the original project did not want to explore.

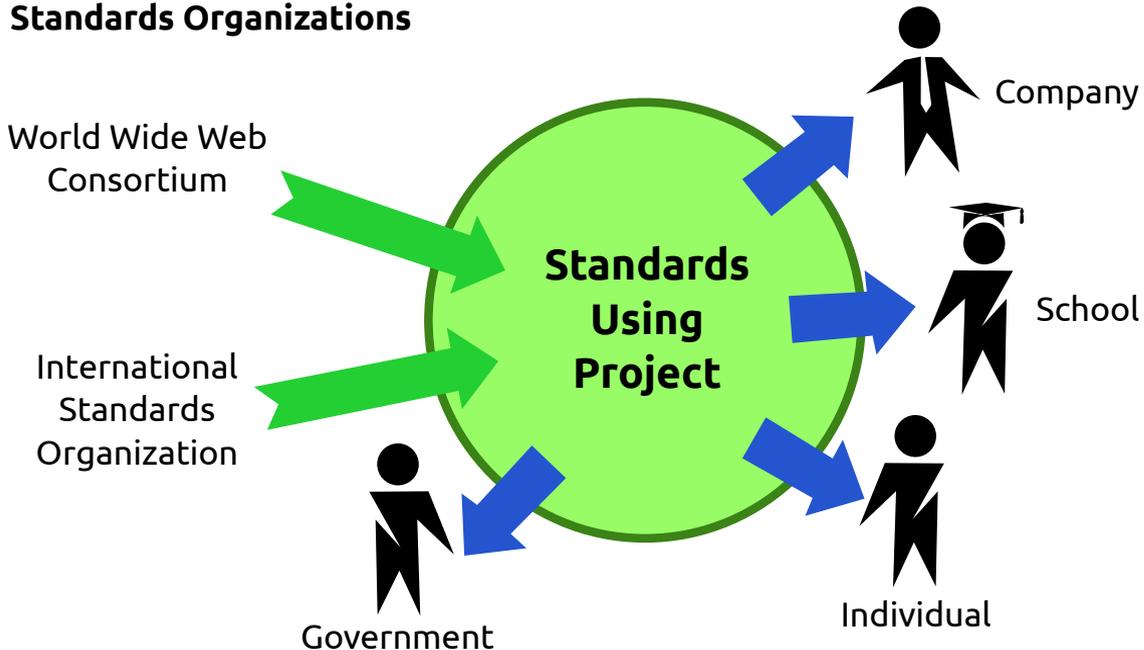


Creating a new community costs time and money to provision with infrastructure and support users.

# Standard Software

Freedom means users go in their own direction, making standards important.  
Although non-standard formats are always available in the source code.

## Standards Organizations



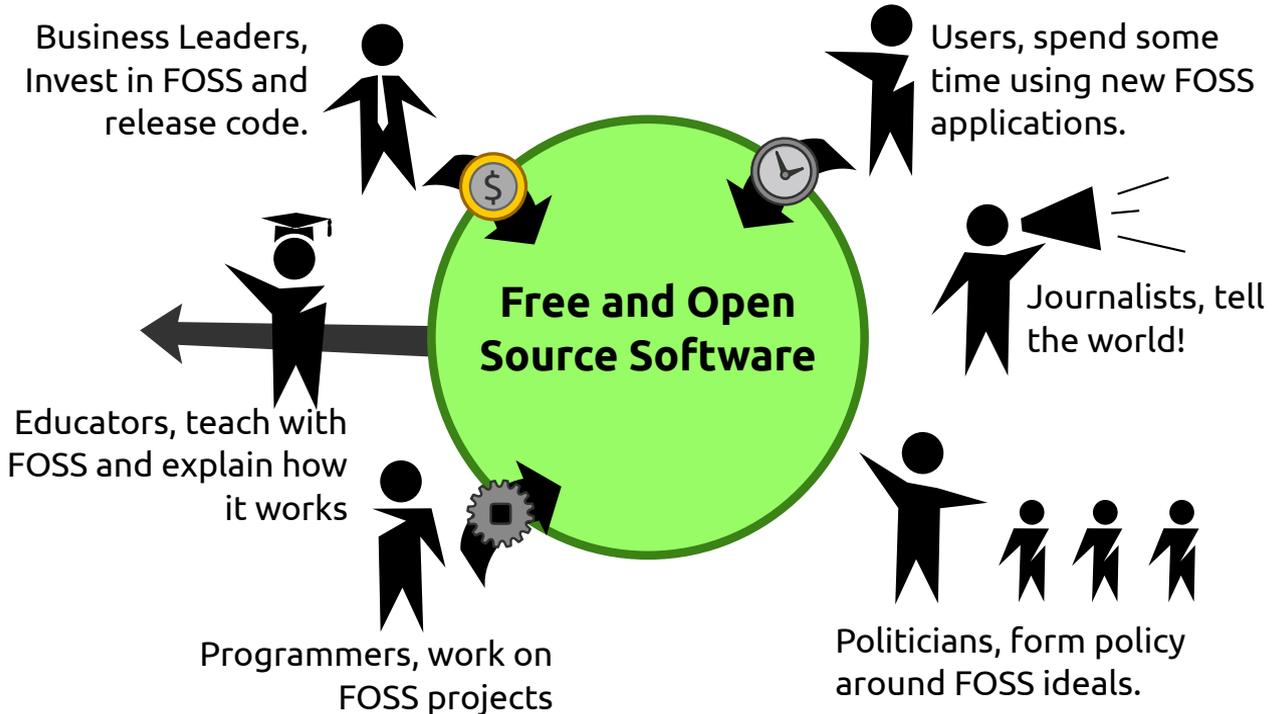
# Conclusion

Free and Open Source is good for users, programmers and business. Everyone who wants good software to be made efficiently and not at the expense of freedom or the open market.



# Getting Involved

We can improve the way software is made for all users. So get involved in the Free and Open Source movement!



# Free and Open Source Software

We have many advantages, hopefully this guide has helped you understand how it works and how to get involved.



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/>



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