



In this awesome event you will:

1. Learn the value of open design through practice.
2. Collaborate with your peers in an open design documentation exercise using github.
3. Get an idea of how to use open licenses.
4. * Hopefully Join our open design community and become a contributor

(you don't have to be a geek!!!)

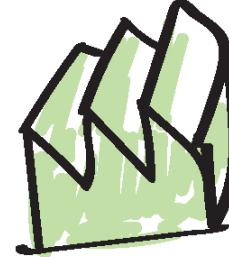


GO!Commons
& open source things



follow Open source things on fb and look for:
<https://github.com/goscommons/goscommons.github.io>

for businesses



for entrepreneurs



Open Design
projects
documentation

P2P

PRODUCTIVE
COLLABORATION

for research

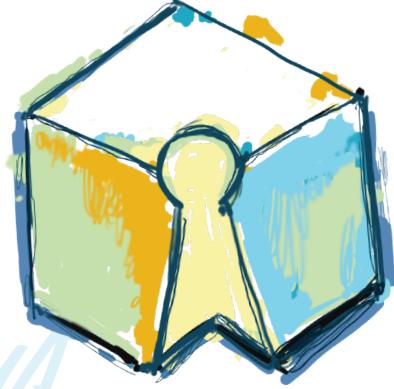


for
education
and
learning



for
developers
and
designers





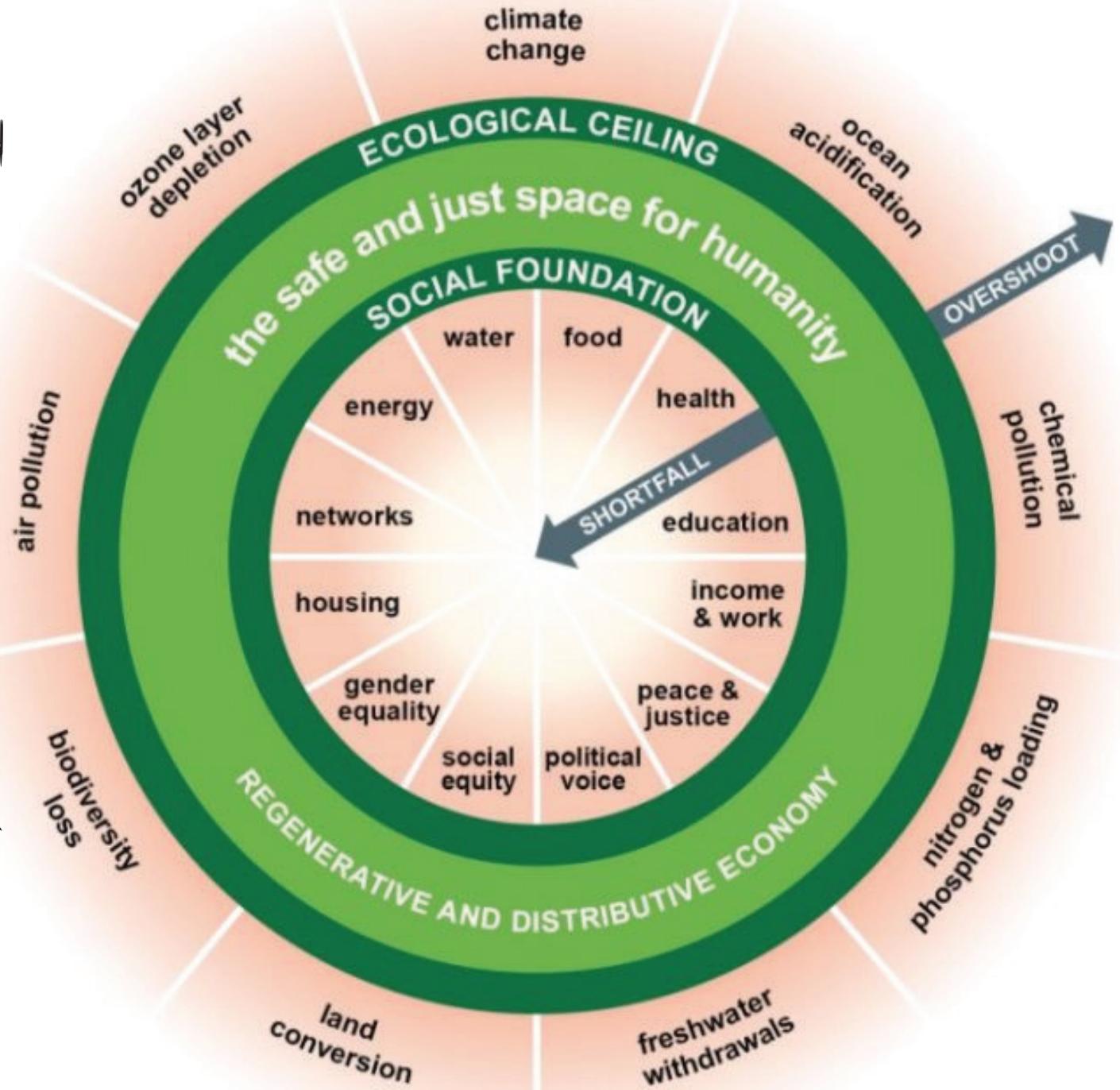
GO!Commons
& open source things

How to use OPEN SOURCE
to make sustainable impact
and leverage economic empowerment

In the end is all about
resource efficiency and
wellbeing

The basic rules of the game
(all you need is love and
“brains”):

- Improve resource efficiency along the value chain in any productive activity down to consumption and recycling.
 - Make impact, and improve effectiveness (change people's lives for good, not for bad)



Organizing is a process
and organization is the result
of that process



ELINOR OSTROM, was an American political economist and Nobel prize in Economic sciences. she is known for her work on the commons and the resurgence of political Economy.

The commons is the cultural and natural resources accessible to all members of a society, including natural materials such as air, water, and a habitable earth. These resources are held in common, not owned privately. Common resources that groups of people communities, user groups manage for individual and collective benefit.

Examples of commons include digital commons like open source software, and also open hardware design, but also natural resources like national parks, or the land. In the last decade there has been an impressive emergence of digital commons and knowledge commons. p2p processes sometimes take place around common resources, Linux is just one of many examples.

8 principles for Managing a Commons

1. Define clear group boundaries.
2. Match rules governing use of common goods to local needs and conditions.
3. Ensure that those affected by the rules can participate in modifying the rules.
4. Make sure the rule-making rights of community members are respected by outside authorities.
5. Develop a system, carried out by community members, for monitoring members' behavior.
6. Use graduated sanctions for rule violators.
7. provide accessible, low-cost means for dispute resolution.
8. Build responsibility for governing the common resource in nested tiers from the lowest level up to the entire interconnected system.



GO!Commons
& open source things

what is open source?

How it works?

why open source?

How to use OPEN SOURCE
to make sustainable impact
and leverage economic empowerment

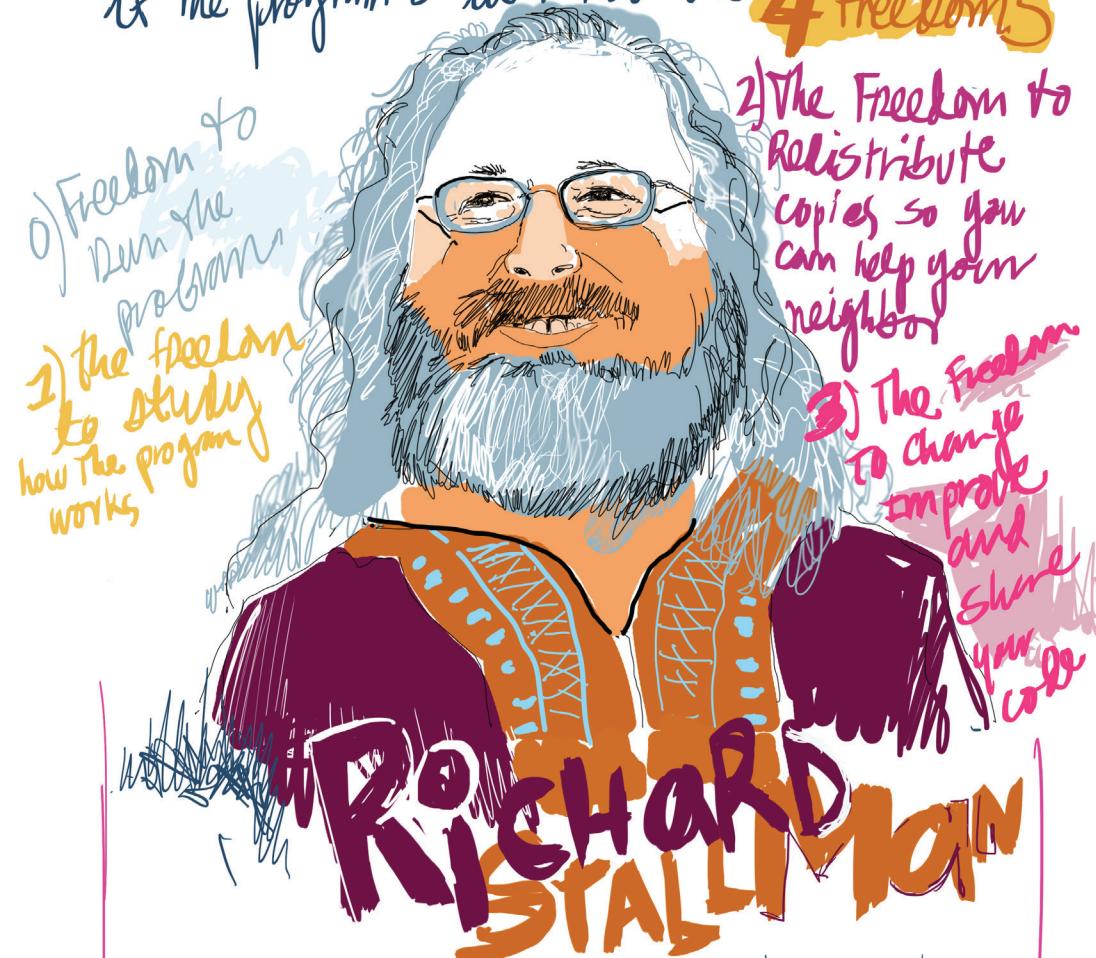


GO!Commons
& open source things

what is open source:

1. An open way of distributing intellectual production and attributing authorship through permissive licenses, that originated in the context of software development
2. A collaborative model of working, using more lateral/ horizontal/ distributed/ resources (p2p)
3. An economic phenomenon that has disrupted our daily lives in many aspects. Being an important component of what is known as the sharing economy.

"A program is **FREE SOFTWARE**
if the program's user has the **4 freedoms**"



RICHARD MATTHEW STALLMAN, often known by his initials, rms, is an American software freedom activist and programmer. He campaigns for software to be distributed in a manner such that its users receive the freedoms to 1. use, 2. study, 3. distribute and 4. modify that software.

GNU is an operating system and an extensive collection of computer software. GNU is composed wholly of free software, most of which is licensed under the GNU project own Generic public License (GPL).

The GNU project: a collaborative effort to create a freedom-respecting operating system, and revive the spirit of cooperation once prevalent among hackers during the early days of computing.



GPL IS A LICENSE FOR FREE SOFTWARE

Software that is not covered by copyright law, such as software in the public domain, is free if the source code is in the public domain too, or otherwise available without restrictions. Proprietary software uses restrictive software licenses or EULAs and usually does not provide access to the source code. The source code is the code that humans write in a human readable fashion and is used to generate the program that will be runned by the computer.

Linux is the kernel: the program in the system that allocates the machine's resources to the other programs that you run. Linux is normally used in combination with the GNU operating system: the whole system is basically GNU with Linux added, or GNU/Linux.

FREE SOFTWARE IS A MOVEMENT, open source is necessary for a software to be free. Before, when the computer era started it was normal to share and pass source code, later for profit reasons, the source codes were locked and copyrighted. FREE software stands against this idea of locking the source codes.

the metabolism of the new industrial revolution powered by open source, P2P, and the WWW. P2P foundation

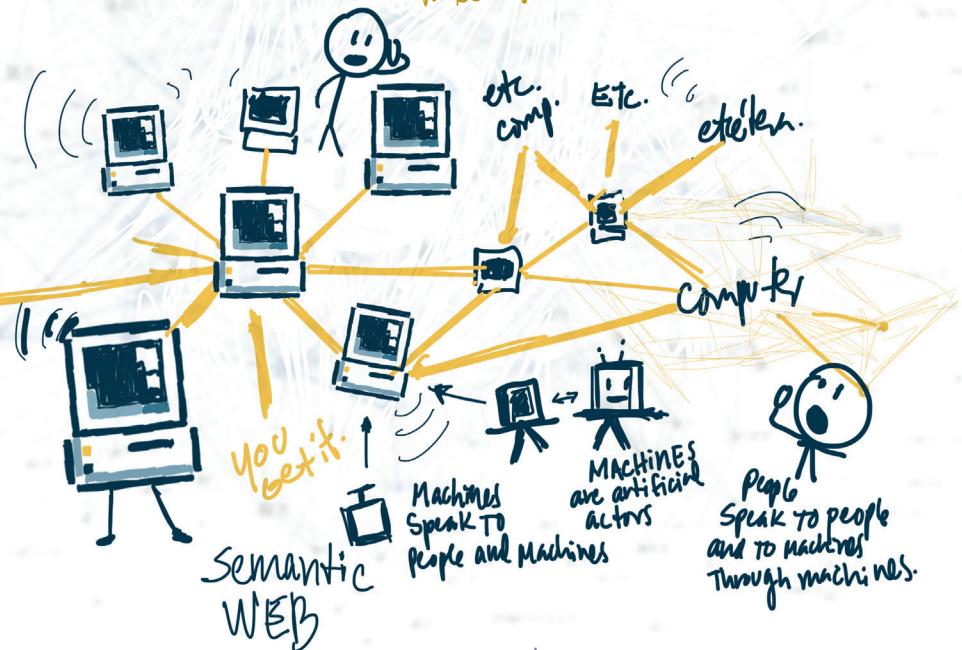




SIR TIMOTHY JOHN BERNERS-LEE, also known as TimBL, is an English engineer and computer scientist, best known as the inventor of the world wide web.

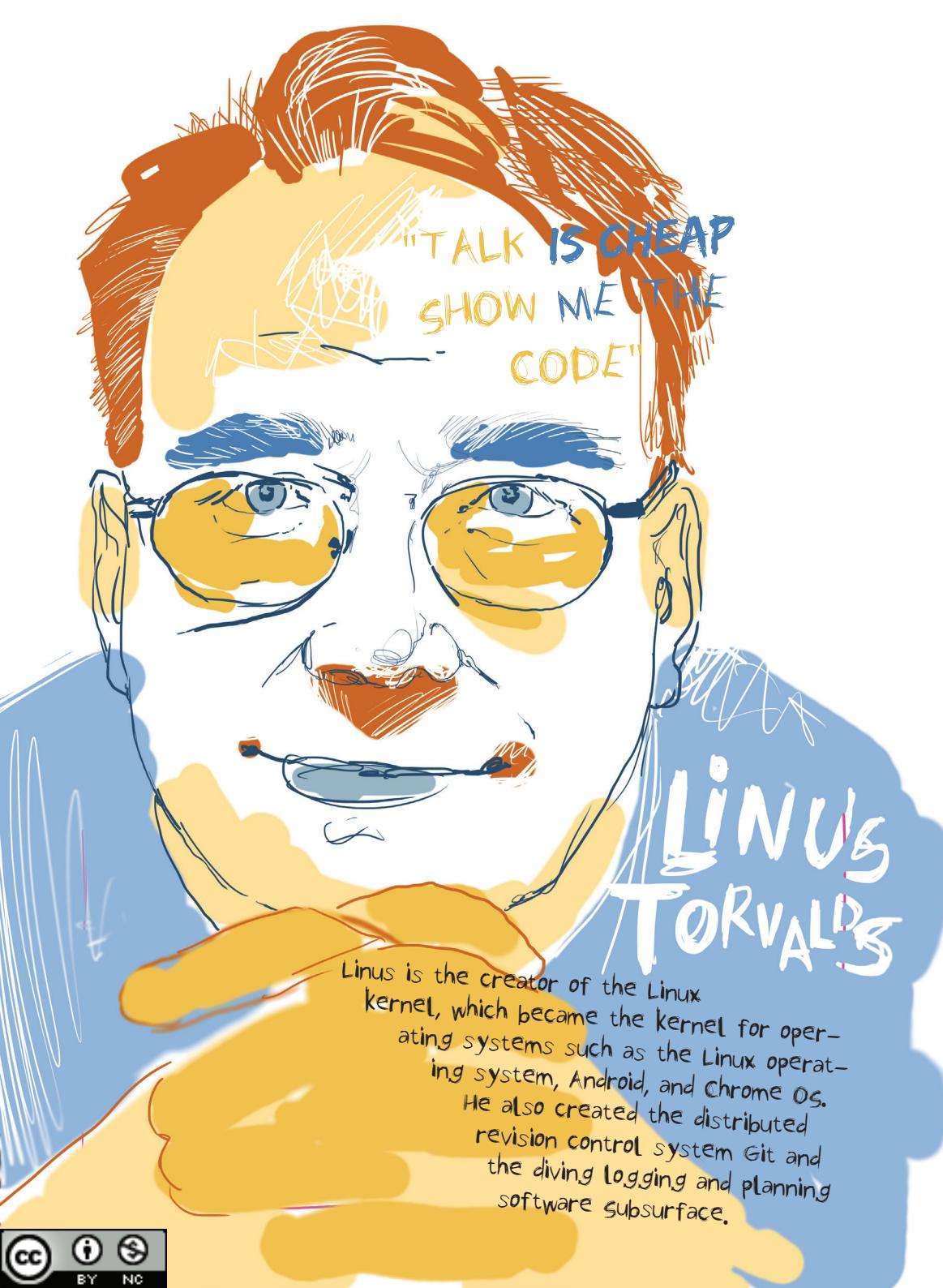
The world wide web is an information space where documents and other web resources are identified by uniform Resource Locators, interlinked by hypertext links, and can be accessed via the Internet.

EMBEDDED HYPERLINKS permit users to navigate between web pages. Multiple web pages with a common theme, a common domain name, or both, make up a website.



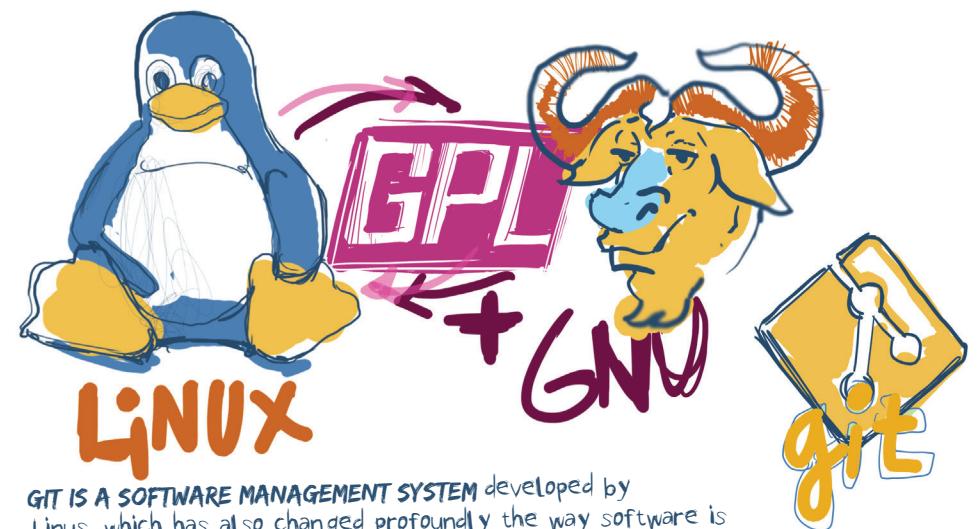
The possibility that anyone around the world can be connected, and share resources, images, videos, (any type of information), is what has allowed projects like GNU/Linux to be so successful. The open source era would have difficult times without the WWW.

OUTLOOK The semantic web term was coined by Tim Berners-Lee for a web of data that can be processed by machines that is, one in which much of the meaning is machine-readable. Think of it in the following manner: machines are also active actors, and do their own work behind the scene exchanging data and resources, creating new information and content.



Linux is a word that involves different things, 1. An operating system essential component known as the kernel 2. Distributions of open source software and 3. A social phenomenon and revolution in the software industry known as open source software development. Today Linux is running the fastest supercomputers, networks and servers including those that power Google's, paypal, facebook servers, among many many others.

Linux(GNU) is the most efficient and robust widely used operating system.

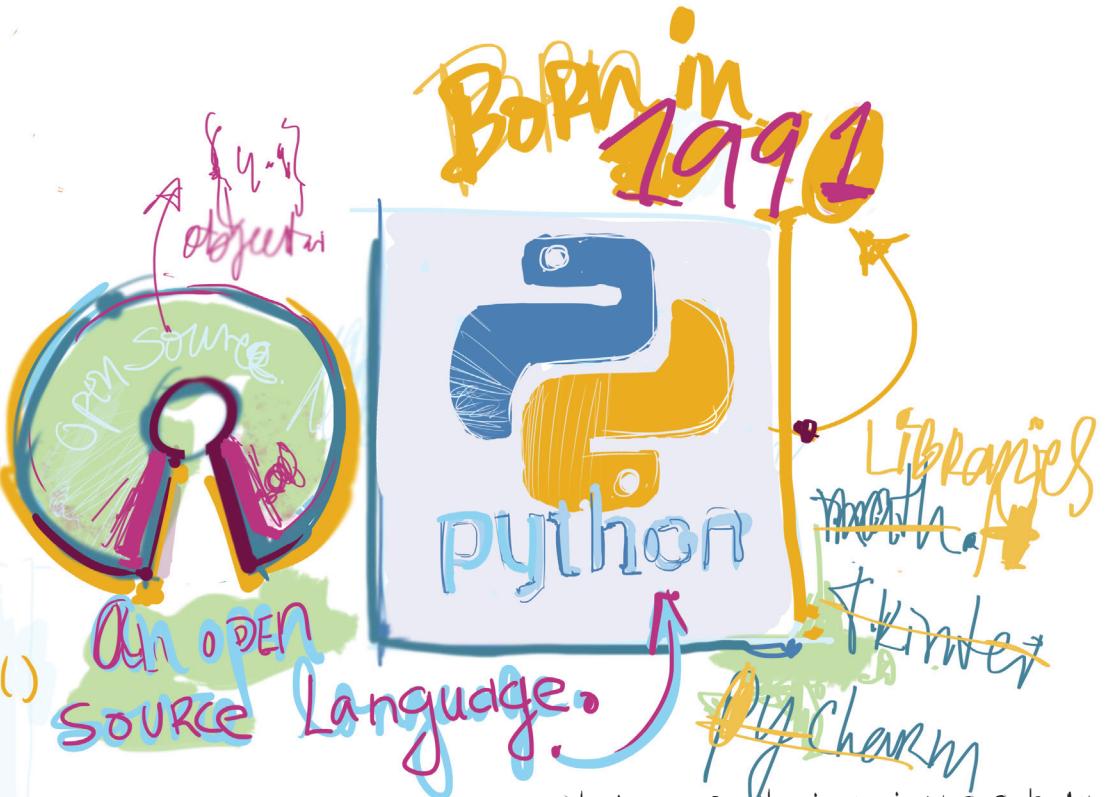


GIT IS A SOFTWARE MANAGEMENT SYSTEM developed by Linus, which has also changed profoundly the way software is developed today. Imagine that Linux distributions are released every two months involving thousands of contributors. Git is a system that allows to manage these very concurred massive projects, and make changes to the program in a reliable and safe manner. Linus often said that it is the 2nd big project he made to maintain his 1st big project (The Linux OS). Have you heard about github? There wouldn't be github without git. recently in the hardware domain.

The Git (and Linux) projects have brought distributed production (or what is also called peer-to-peer production), to the next level in the software industry, moving forward very fast into the hardware world.



GUIDO VAN ROSSUM is a Dutch programmer who is best known as the author of the python programming language. In the python community, Van Rossum is known as a "Benevolent Dictator For Life", meaning that he continues to oversee the python development process, making decisions where necessary.



PYTHON is a widely used high-level programming language for general-purpose programming, first released in 1991. It was designed to make programming easier.

Today python is all over the place, like Linux. When the version 2.0 was released, it also became a standard open source project, similar to Linux. Many important projects, and organizations use python like Google, Spotify, Instagram, DropBox, Wikipedia, Nasa.

The impact of python is growing tremendously, also powering open source (non proprietary) softwares like Blender, or FreeCAD, 3D modelling tools that are free and open. python is lowering down the barriers to science and education. One of the most widely used computers to make electronic projects is the raspberry pi. All the libraries and source code available to develop these projects are done with python using as an operating system Linux. Again Open source projects build upon each other in a way never seen



FreeCAD

Software

FreeCAD is a free and open-source general-purpose parametric 3D CAD modeler and a building information modeling software with finite-element-method support. [Wikipedia](#)

Initial release: 29 October 2002; 15 years ago

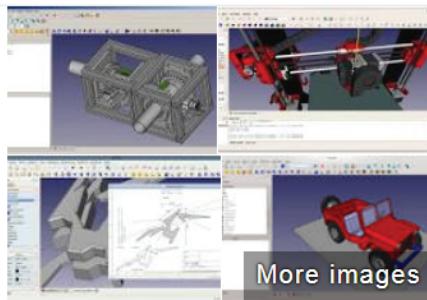
Original author(s): Jürgen Riegel, Werner Mayer, Yorik van Havre

License: LGPLv2+

Stable release: 0.17 / 6 April 2018; 19 days ago

Operating system: Linux; macOS; Unix; Windows

Written in: C++, Python



[More images](#)



[More images](#)

Blender

Computer software

Blender is a professional, free and open-source 3D computer graphics software toolset used for creating animated films, visual effects, art, 3D printed models, interactive 3D applications and video games. [Wikipedia](#)

License: GNU General Public License v2 or later

Developer(s): Blender Foundation

Size: 76.7 – 137.5 MiB (varies by operating system)

Stable release: 2.79 (September 11, 2017; 7 month)

Operating system: Windows, macOS, Linux, FreeBSD

Written in: C++, Python



[More images](#)

OpenSCAD

Software

OpenSCAD is a free software application for creating solid 3D CAD objects. It is a script-only based modeller that uses its own description language; parts can be previewed, but it cannot be interactively ... [Wikipedia](#)

Preview release: 2017.02.08 / 8 February 2017; 14 months ago

Stable release: 2015.03 / 10 March 2015; 3 years ago

Initial release date: February 19, 2010

Operating system: Windows, Linux, OS X, FreeBSD, NetBSD, OpenBSD

Written in: C++, Qt, CGAL, OpenGL

Platforms: x86-32 (32 bit Intel x86), x86-64



[More images](#)



OpenModelica

System software

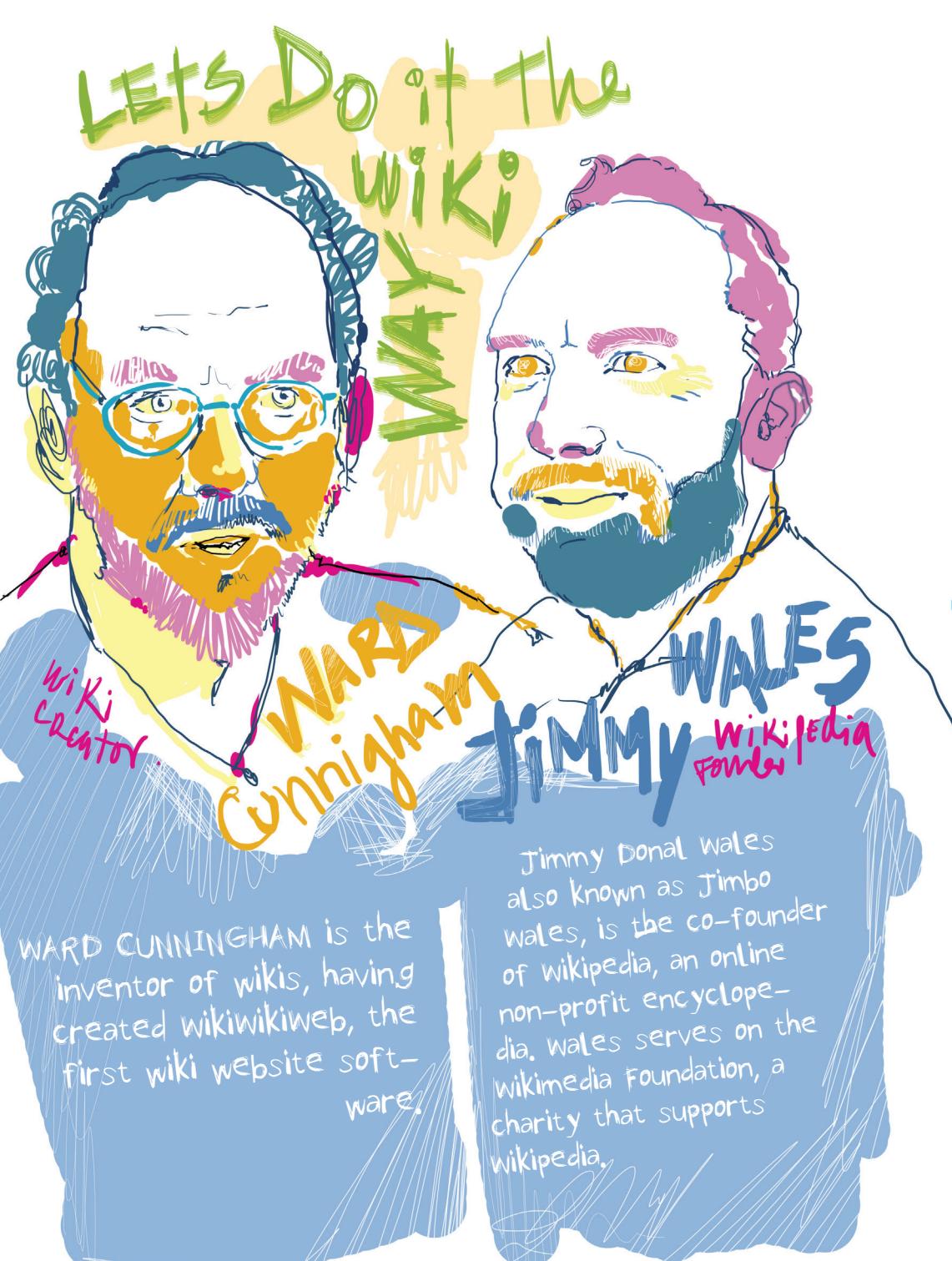
OpenModelica is a free and open source environment based on the Modelica modeling language for modeling, simulating, optimizing and analyzing complex dynamic systems. [Wikipedia](#)

Written in: C++

Operating system: Linux, Windows and OS X

License: OSMC Public License, EPL, GPL (free software)

Developer(s): Open Source Modelica Consortium (OSMC)



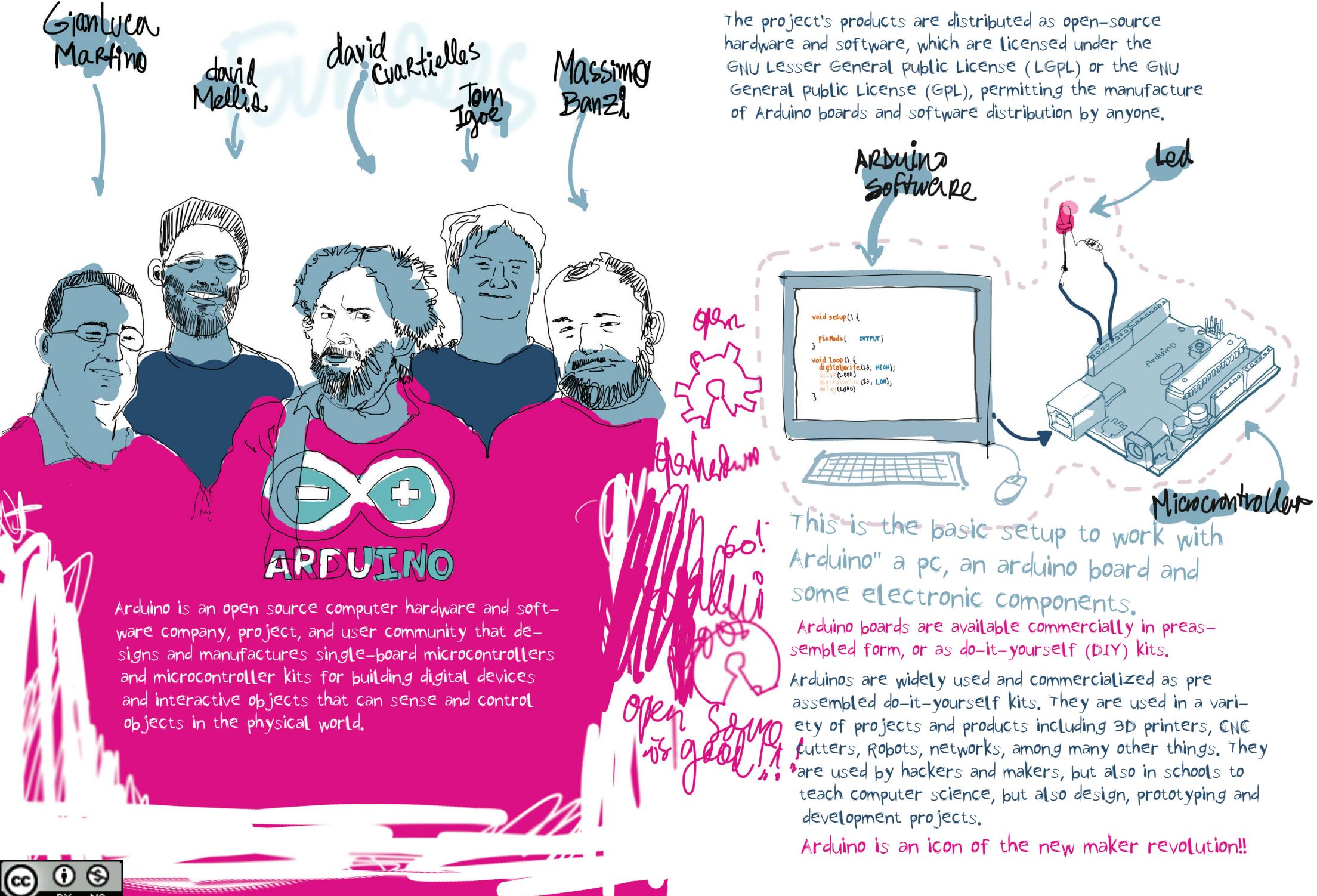
WIKIPEDIA is a free online encyclopedia with the aim to allow anyone to edit articles. Wikipedia is the largest and most popular general reference work on the Internet, and is ranked the fifth-most popular website. Wikipedia is owned by the nonprofit Wikimedia Foundation.



But why wikipedia has been so successful? It is because of the way in which the content is created. Thousands of people collaborate and create what you read, it is an open and collaborative approach, a peer to peer dynamics at work.

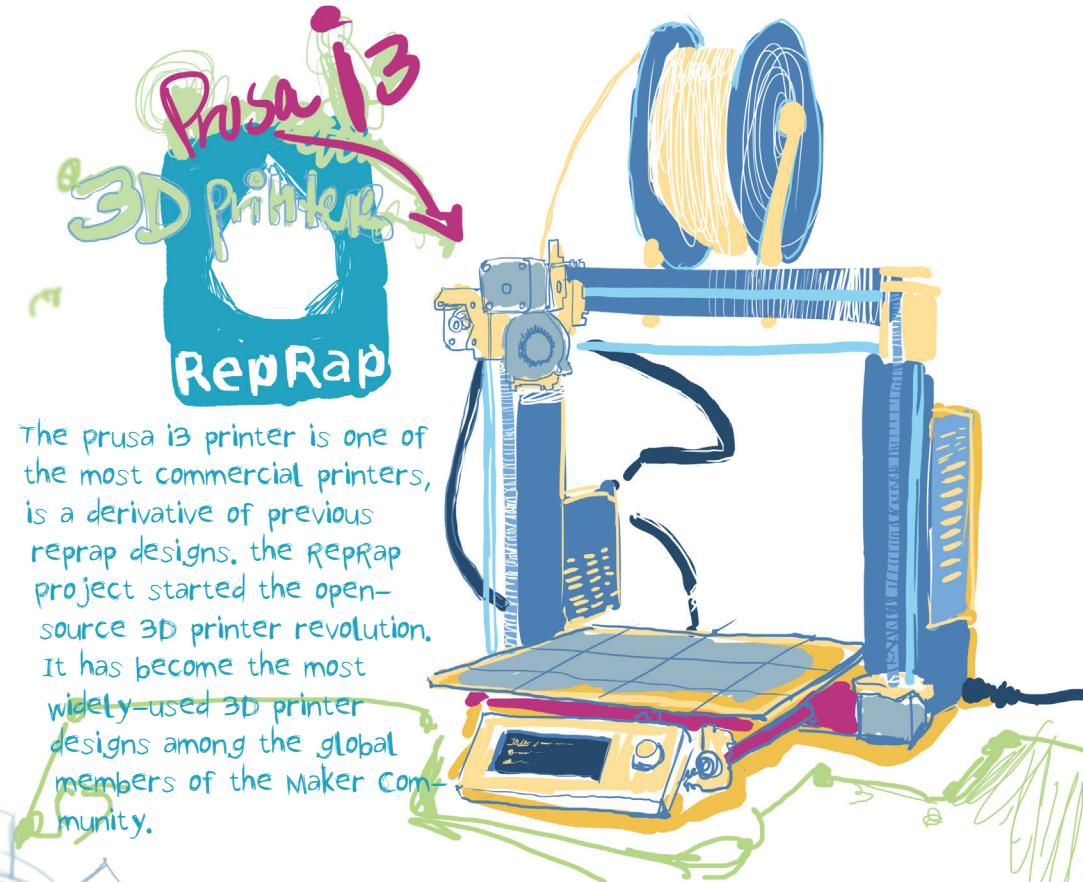
It is because of its operational model!!!

This is possible because of the wiki technology. A wiki is a website on which users collaboratively modify content and structure directly from the web browser. In a typical wiki, text is written using a simplified markup language and often edited with the help of a rich-text editor.





Josef prusa is one of the core RepRap developers. He has designed several open source printers for the RepRap project. He started doing this by improving previous reprap designs, he is a strong open source advocate and active maker. He currently runs an open source hardware based company.



The prusa i3 printer is one of the most commercial printers, is a derivative of previous reprap designs. the RepRap project started the open-source 3D printer revolution. It has become the most widely-used 3D printer designs among the global members of the Maker community.

3D printers are the first high-tech equipment and fully functional commercial desktop manufacturing product, to be fully open source.

It is an icon of the collaborative commons and p2p revolution. It has been so successful that many of its design are currently commodities easy to buy through the internet. You can get 3D printer kits to learn and develop DIY and engineering skills.


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Prusa i3

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Prusa i3 Documentation

[Main page](#) | [Prusa i3 Buyer's Guide](#) | [Prusa i3 Build Manual](#) | [Prusa i3 User Manual](#) | [Prusa i3 improvements](#)

The Prusa i3 (iteration 3) precedes a third iteration (i3) MK2 which can be found here: [Prusa i3 MK2](#). The i3 incorporates lessons learned from the previous two Prusa designs, as well as other popular modern RepRap designs. See also [Prusa Mendel](#) (iteration 2).



Derivates

The Prusa i3 is a very popular design, which led to many people creating derivates. We list these derivates in [Category: Prusa i3 Derivate](#). Also check [the Prusa i3 Variants page](#), as well as [the Prusa i3 Development page](#).

Contents [hide]

- 1 Specifications
- 2 Main improvements
- 3 Development
- 4 History
 - 4.1 Prusa i2 (November 2011)
 - 4.2 Prusa i3 (May 2012)
 - 4.3 "Final refactoring complete" (September 3 2012)
 - 4.4 Original development moved to Vanilla (January 2014)
 - 4.5 Official kit available (May 2015)
- 5 Variants
- 6 Printed Parts
- 7 Frame type
 - 7.1 Single Sheet Frame
 - 7.2 Box Style Frame

Prusa i3
 Release status: working

Description Prusa i3 is a design by Josef Prusa.

License GPL

Author Prusajr

Contributors

Based-on Prusa i3

Categories Prusa i3, Prusa i3 Development, Prusa

[View on GitHub](#)

LIMOR FRIED is an American electrical engineer and owner of the electronics hobbyist company Adafruit Industries.

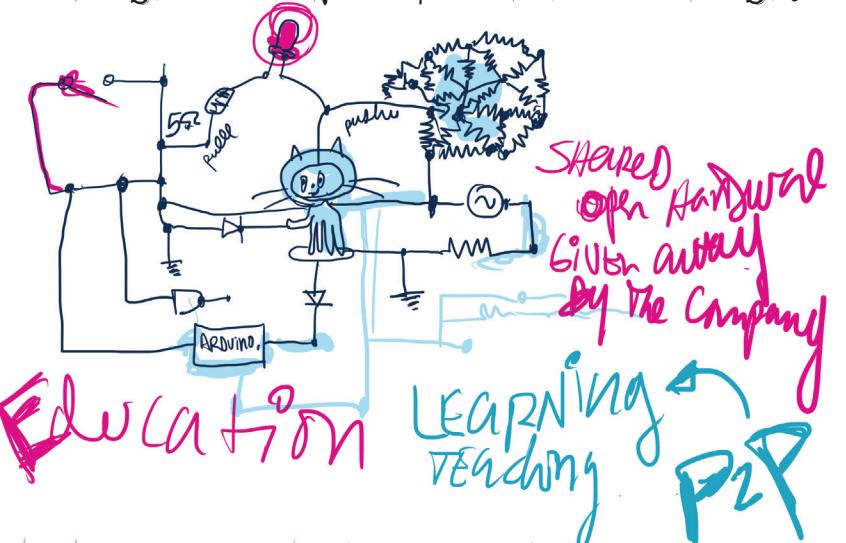


she is influential in the open-source hardware community, having participated in the first Open Source Hardware summit and the drafting of the Open Source Hardware definition, and is known for her moniker ladyada, an homage to Lady Ada Lovelace.

Limor was awarded the Most Influential Women in Technology award, in 2011, by Fast Company magazine.

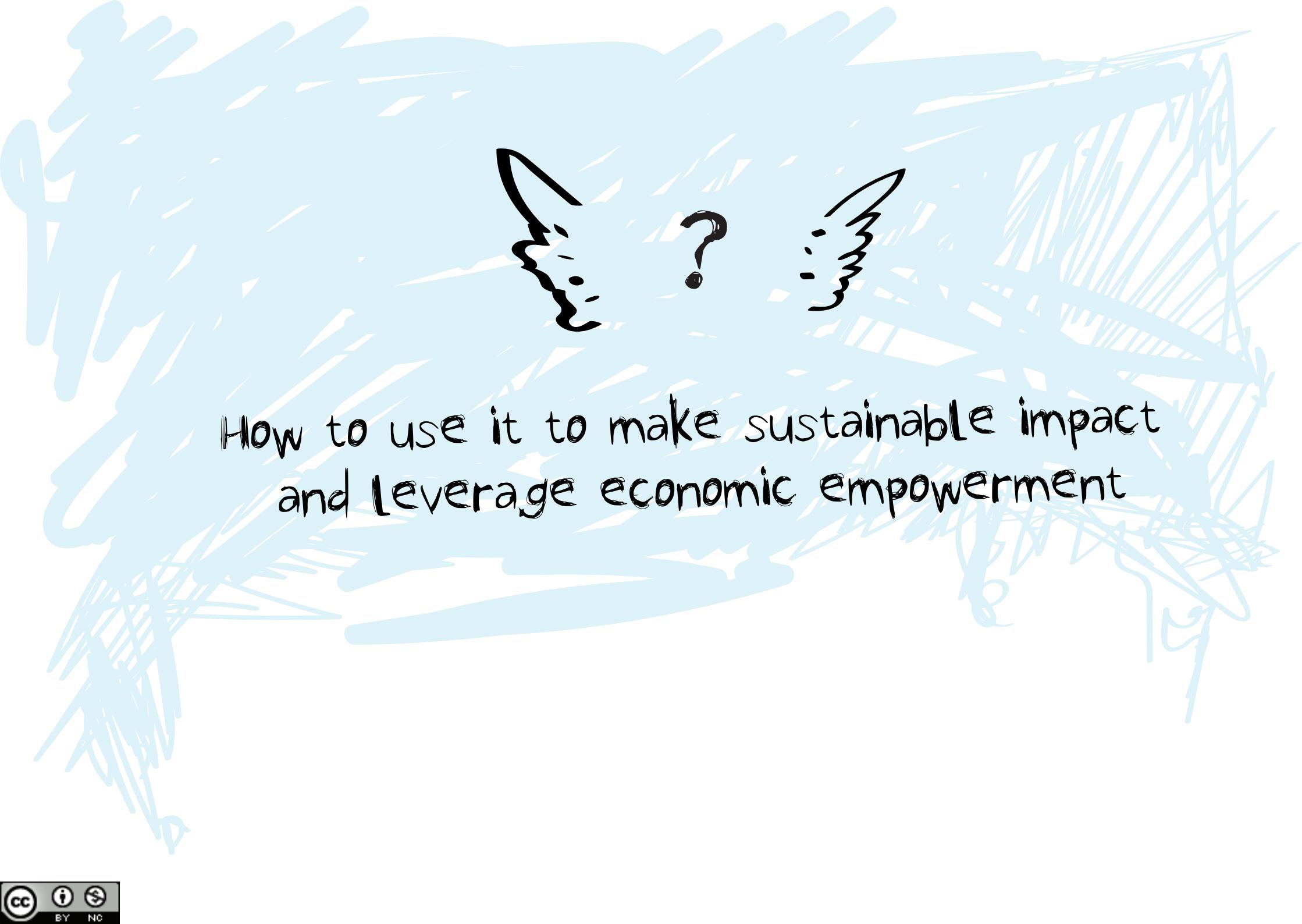
Open source hardware principles statements:

Open source Hardware is hardware whose design is made publicly available so that anyone can study, modify, distribute, make, and sell the design or hardware based on that design.



The hardware's source, the design from which it is made, is available in the preferred format for making modifications to it. Ideally, open source hardware uses readily-available components and materials, standard processes, open infrastructure, unrestricted content, and open-source design tools to maximize the ability of individuals to make and use hardware. Open source hardware gives people the freedom to control their technology while sharing knowledge and encouraging commerce through the open exchange of designs.

Open Hardware brings the p2p revolution and distributed production to the next level of potential, and its only starting. Imagine if the same thing that has happened with Linux would happen with things...



How to use it to make sustainable impact
and leverage economic empowerment

"If anyone can make anything, anywhere. It fundamentally changes the meaning of business... The real opportunity is to harness the inventive power of the world to locally design and produce solutions."

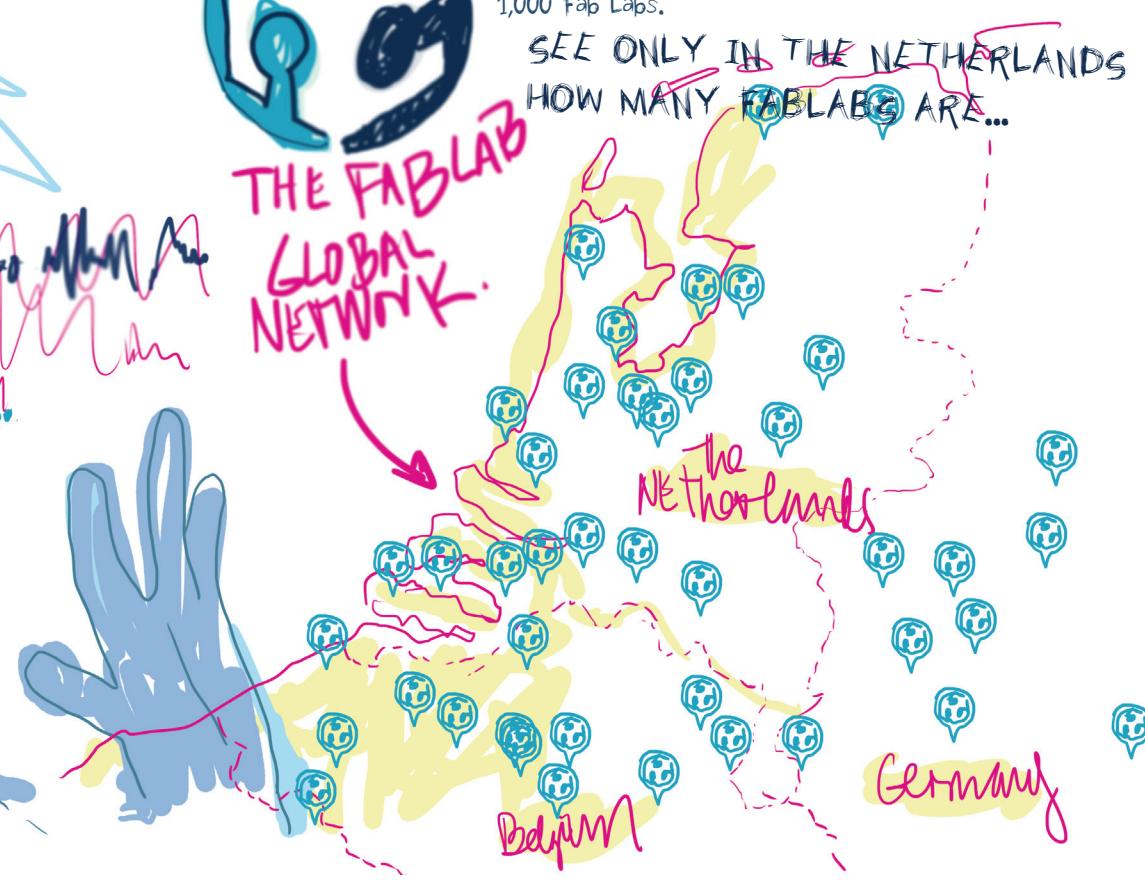
NEIL A. GERSHENFELD is a professor at MIT and the director of MIT's Center for Bits and Atoms, a sister lab to the MIT Media Lab.

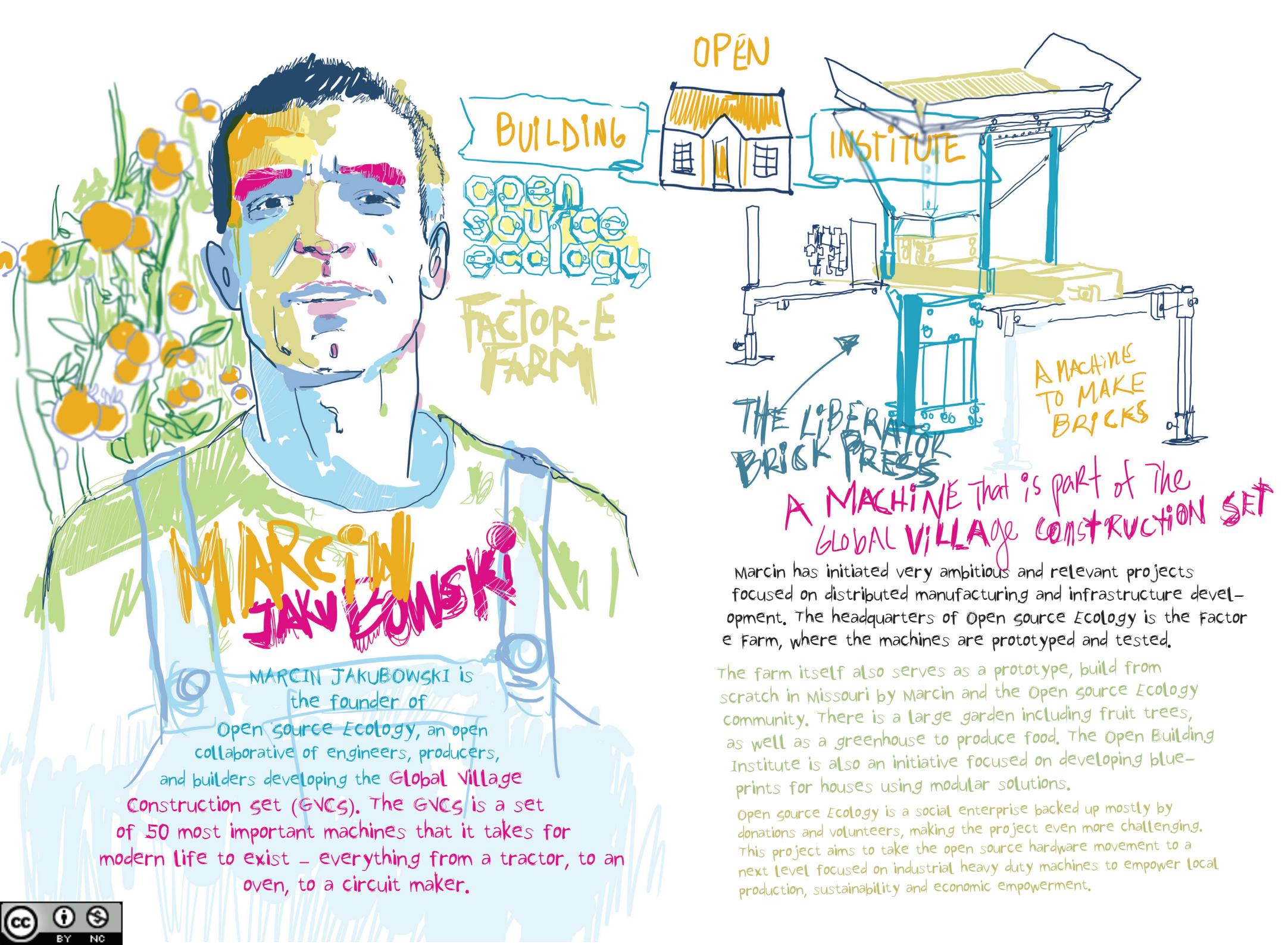


A fab lab (fabrication laboratory) is a small-scale workshop offering digital fabrication.

A fab lab is typically equipped with an array of flexible computer-controlled tools that cover several different length scales and various materials, with the aim to make "almost anything". Notice that more and more machines used in fablabs are being open sourced by makers that often work in the FabLabs.

The Fab Lab Network is an open, creative community of fabricators, artists, scientists, engineers, educators, students, amateurs, professionals, of all ages located in more than 78 countries in approximately 1,000 Fab Labs.





MARCIN JAKUBOWSKI

MARCIN JAKUBOWSKI is
the founder of

Open Source Ecology, an open
collaborative of engineers, producers,

and builders developing the Global Village

Construction set (GVCS). The GVCS is a set
of 50 most important machines that it takes for
modern life to exist – everything from a tractor, to an
oven, to a circuit maker.

OPEN

BUILDING

open
source
ecology

FACTOR-E
FARM

INSTITUTE

A MACHINE
TO MAKE
BRICKS

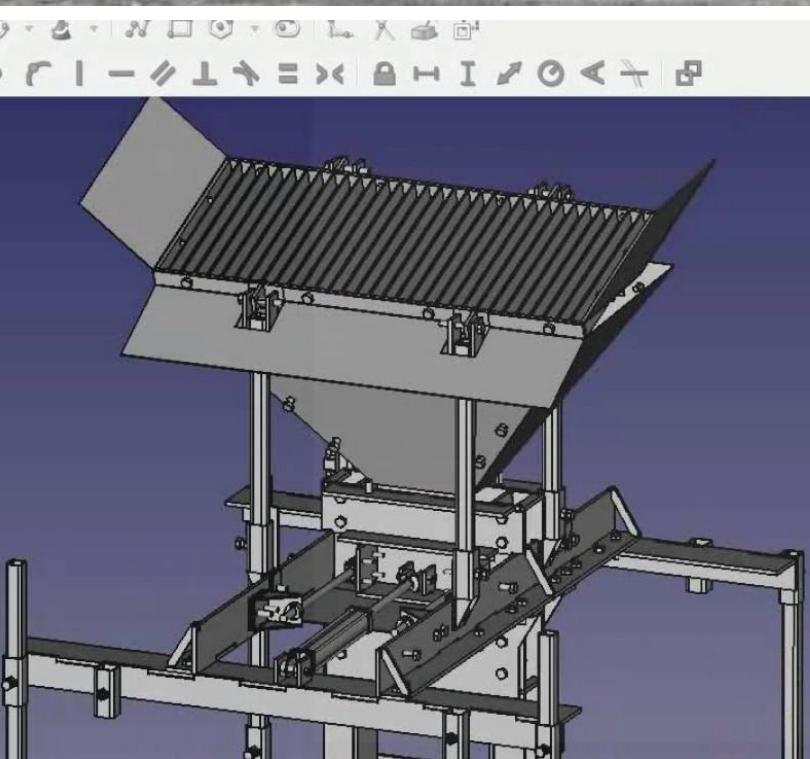
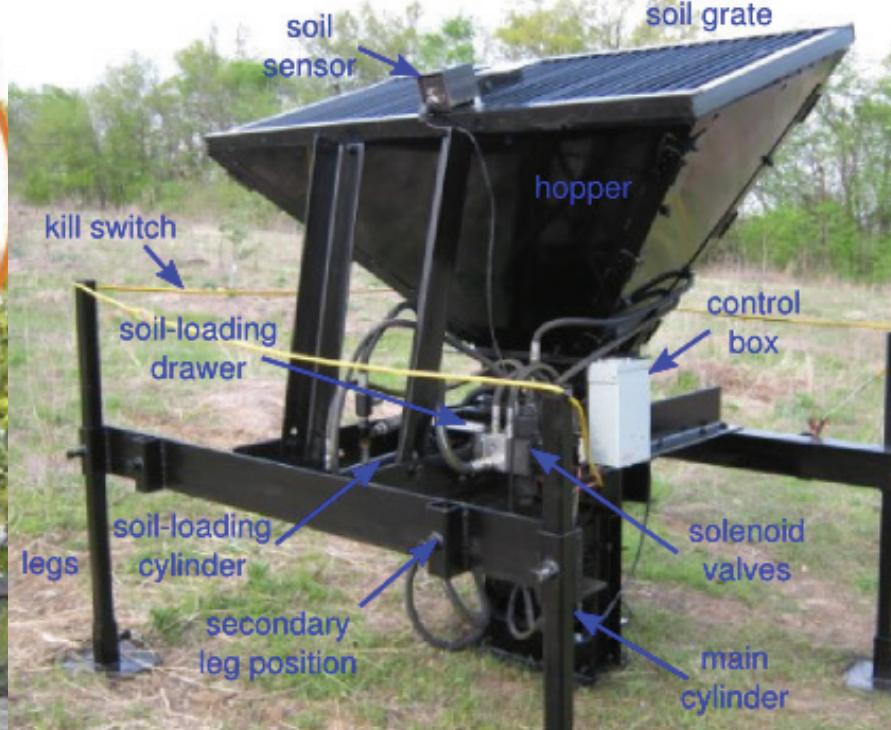
THE LIBERATOR
BRICK PRESS

A MACHINE that is part of The
GLOBAL VILLAGE CONSTRUCTION SET

Marcin has initiated very ambitious and relevant projects focused on distributed manufacturing and infrastructure development. The headquarters of Open source Ecology is the Factor e Farm, where the machines are prototyped and tested.

The farm itself also serves as a prototype, build from scratch in Missouri by Marcin and the Open source Ecology community. There is a large garden including fruit trees, as well as a greenhouse to produce food. The Open Building Institute is also an initiative focused on developing blueprints for houses using modular solutions.

Open source Ecology is a social enterprise backed up mostly by donations and volunteers, making the project even more challenging. This project aims to take the open source hardware movement to a next level focused on industrial heavy duty machines to empower local production, sustainability and economic empowerment.



The Global Village Construction Set

40 DIY Industrial Machines

The Global Village Construction Set is a collection of 40 DIY industrial machines. The central title "The Global Village Construction Set" is in yellow, and the subtitle "40 DIY Industrial Machines" is in white. Below the subtitle is a 4x10 grid of 40 small 3D models of various industrial machines, including a tractor, excavator, conveyor belt, and various processing units.



Another great example: Open source Vehicles

The screenshot shows the homepage of the Open Motors website. At the top, there is a navigation bar with links for About, Impact, 'EDIT' Self-Driving Car, EV platforms, EVs, Buy Now, a shopping cart icon, and a search icon. The main visual is a photograph of a modular electric car platform (TABBY EVO) in a workshop setting. Overlaid on the image is text: "Core technology TABBY EVO modular electric car platform" and "We enable businesses and startups to design, prototype, build electric vehicles and improve transportation services". A "discover more" button is located in the lower-left area of the overlay. The bottom of the page has a dark footer bar with the text "Copyright 2018 Open Motors® (formerly OSVehicle YC W16) - all rights reserved".

OPEN MOTORS

About Impact 'EDIT' Self-Driving Car EV platforms EVs Buy Now

Core technology
TABBY EVO modular electric car platform

We enable businesses and startups to design, prototype, build electric vehicles and improve transportation services

discover more

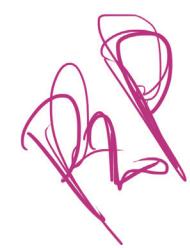
Copyright 2018 Open Motors® (formerly OSVehicle YC W16) - all rights reserved



Integration is fundamental to make impact. With open source when we talk about integration we always talk about lateral/horizontal/distributed integration.

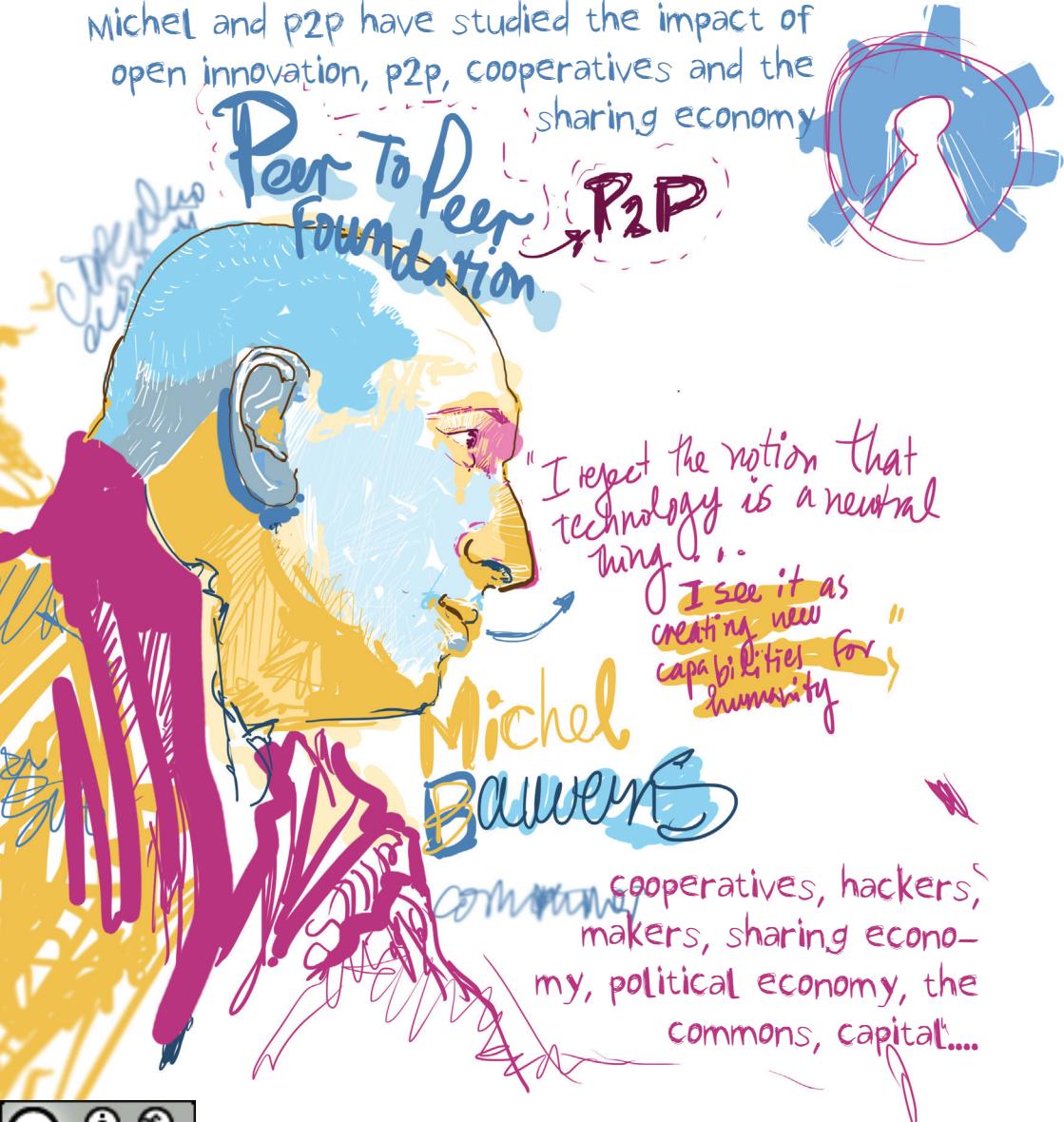
As an alternative to the traditional economies of scale based on vertical integration.

We need to collaborate in a diversified and integrated fashion, creating common resources, that we can exploit together for the common good.



MICHEL is a peer-to-peer theorist and an active writer, researcher and conference speaker on the subject of technology, culture and business innovation. He has authored a number of essays, including his seminal thesis The political Economy of peer production.

Michel and p2p have studied the impact of open innovation, p2p, cooperatives and the sharing economy



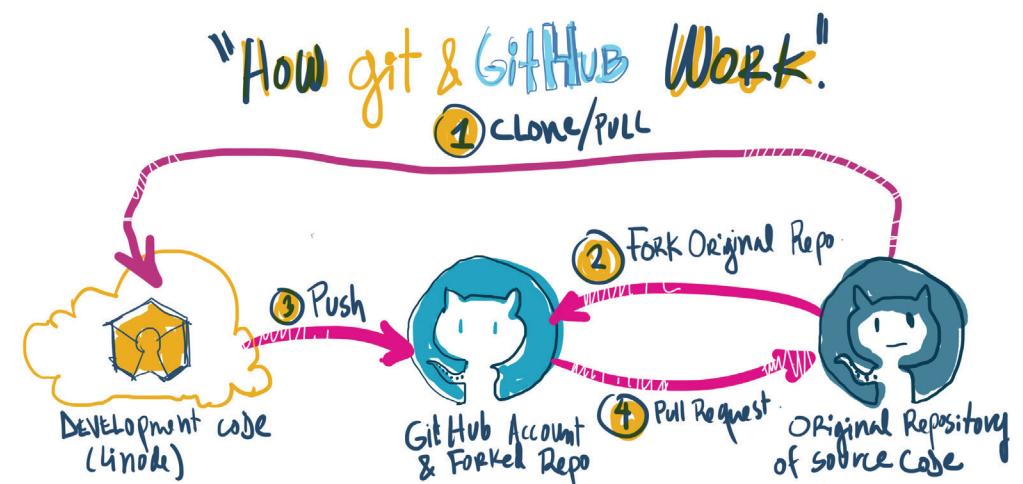
p2p has been active in framing sustainable transition plans and understanding key socio-technical and economic trends. The model above identify key responses to global crisis like sustainability, openness and solidarity. Each of these relatively independent responses according to the p2p Foundation should be articulated strategically:

1. creating an open source circular economy and 2. consolidating an ethical and open cooperativism (another way of doing business and establishing economic relations).



GitHub is a web-based Git version control repository hosting service. It is mostly used for computer code. In other words is a place on the internet where people collaborate and manage programming projects, it offers a lot of tools to enable this collaboration and documentation support.

Github hosts thousands of repositories where code is shared to the public. You can see Linus Torvalds repositories for Linux, his progress and contribution released to the public. You can also share, or clone code from someone and develop your own version of the project.



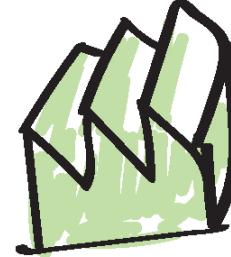
Github is a place to learn from others. FreeCodeCamp is an example of a thriving software community that shares everything on github, and builds on top of the work of many contributors. It is one of the biggest and most popular repositories on github.



What are we doing?

- > Mozilla Foundation Open Leadership Program.(Learning how to work and lead open initiatives)
- > The Case study home appliances
- > Other key projects: design documentation and project consolidation of industrial machines
- > Running a crowdfunding on open source appliances for sustainable development

for businesses



for entrepreneurs



Open Design
projects
documentation

P2P

PRODUCTIVE
COLLABORATION

for research



for
education
and
learning



for
developers
and
designers



see you at 14:30 at
the hackathon session
right here

questions?



In this awesome event you will:

1. Learn the value of open design through practice.
2. Collaborate with your peers in an open design documentation exercise using github.
3. Get an idea of how to use open licenses.
4. * Hopefully join our open design community and become a contributor

(you don't have to be a geek!!!)



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& open source things



follow Open source things on fb and look for:
<https://github.com/goscommons/goscommons.github.io>