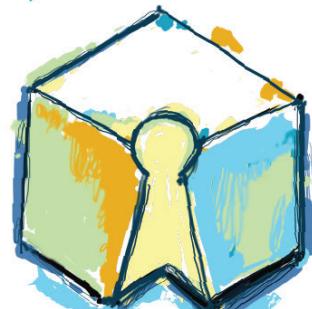


A story about  
THE ADVENT OF  
open source, p2p  
COMMON THINGS  
and  
the definite  
path to a sustainable

economy -  
we all need



GO!Commons  
& open source things

2018



A story about open source, p2p and the path  
to a sustainable economy

by

Jose Carlos Urra

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1st Edition  
2018



The mission of this material is not just to spread knowledge and ideas, but to spread action and economic impact. The success of open source, fair trade, and p2p is based on reciprocity. This is one of our channels to explain people that a new economy needs also of commitment and economic reciprocity.

If you happen to have this book is because you have contributed and donated to this non-profit project (we have given you back something in return of your commitment), Thanks again!!

If you read it, you like it and you haven't contributed yet to this project, but you believe in reciprocity as a way to create impact WE ENCOURAGE YOU TO GO TO THE CAMPAIGN AND DECIDE WHAT kind OF CONTRIBUTION FITS YOU BEST. [click here](#)

Hi there! thanks for reaching out and reading.

This is a booklet for curious, inspired, passionate, self driven, sensitive, fun, amazing people.....

Is a book for everyone :)

The idea behind this book is to get you familiarized with new concepts, ideas, ideals, values and actual events that are currently happening and are relevant.

The book is open ended and welcomes new stories, suggestions, languages and debates in order to make things happen.

We give you this piece with a reciprocity hope, and test how far we can go together in making small incremental contributions towards a new economy.

Understanding the new economic mechanisms and opportunities is essential to grow and move towards sustainable development scenarios.

We hope this booklet inspires you! The pages are designed to be used also as cards or posters in different formats! Enjoy it!

# A brief overview of open source and the peer-to-peer revolution

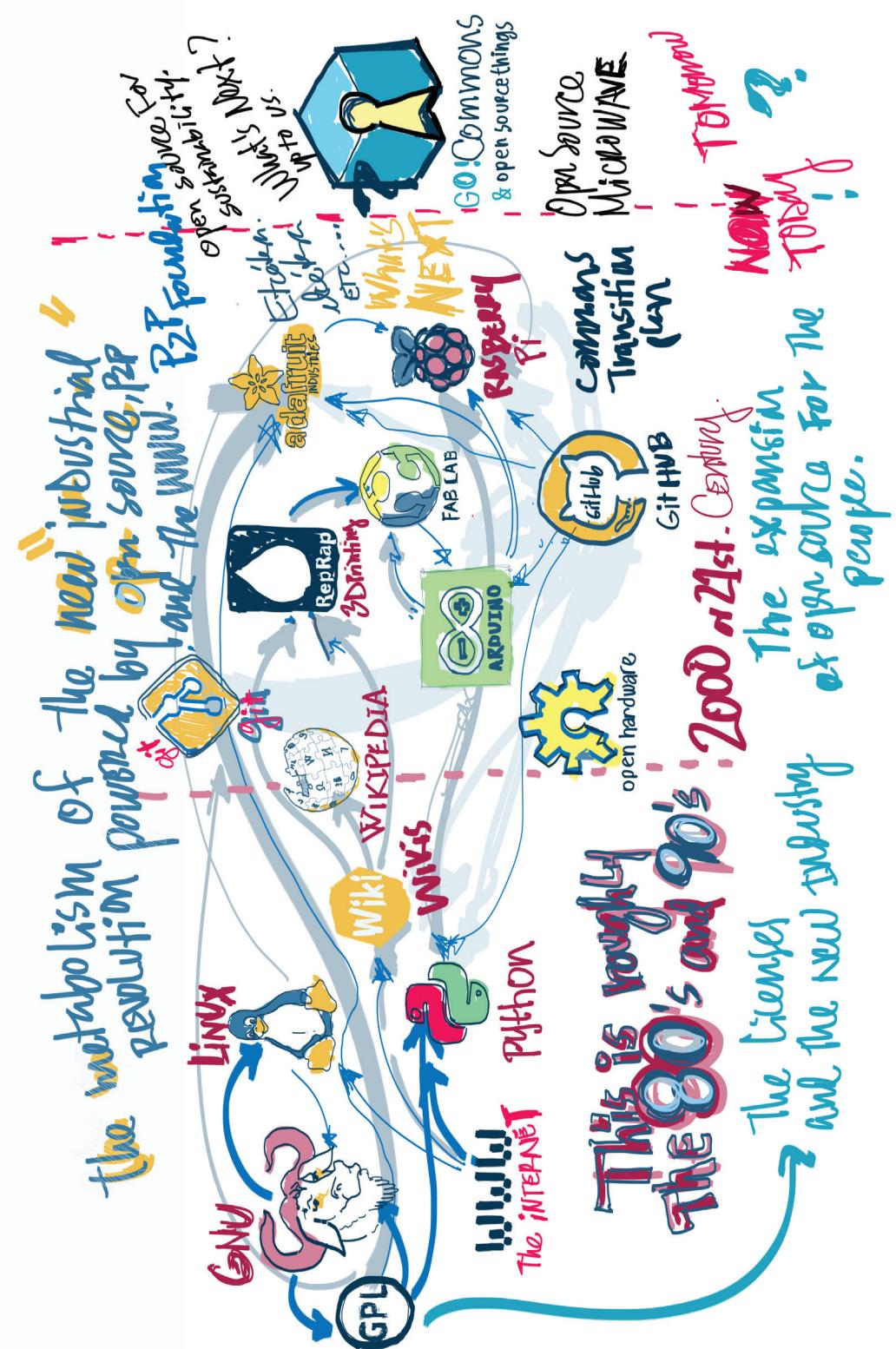
Most if not all open source projects build upon each other, that is why it has a special power to change many things. It is a social symphony or ecosystem if you like. There wouldn't be Linux without GNU, GPL and the internet, or Github without Git, maybe there wouldn't be an Android operating system.

The following map shows you a very limited but comprehensive overview of the metabolic cycles of Open source.

It also posts some questions about the future of open source and the possibility of making all consumer products completely open for the public.

We have made a selection of stories, initiatives and projects that are widely known and famous, or relevant in the p2p world. The emergence of digital commons and open source ion is only possible because of the contributions of many. Heroes are part of the picture, some are famous faces, others unknown. We chose some outstanding persons and faces, but they are people, consider them as such.

We decided to make this booklet an open project, that we expect to grow with new stories and characters.



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.

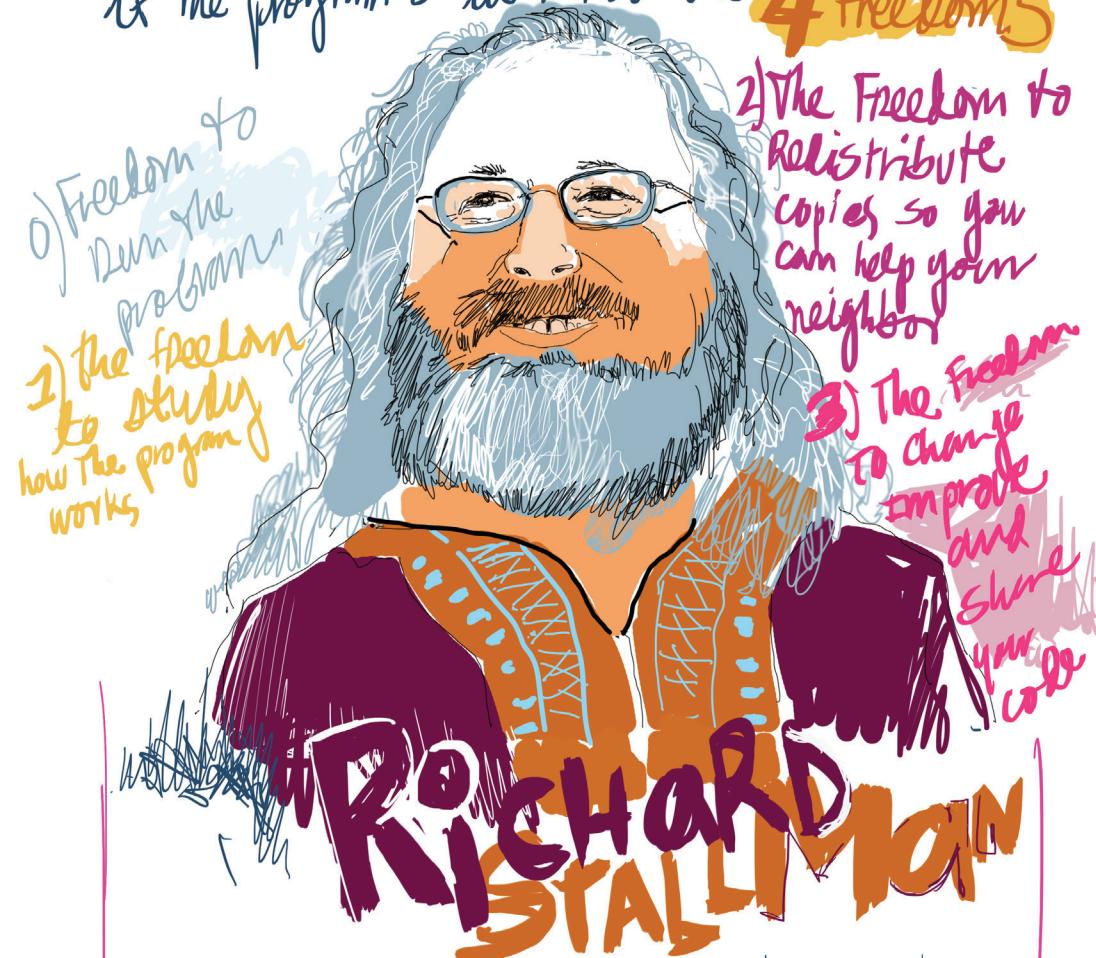
The commons is the cultural and natural resources accessible to all members of a society, including natural materials such as air, water, and a habitable earth. These resources are held in common, not owned privately. Common resources that groups of people communities, user groups manage for individual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

"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.

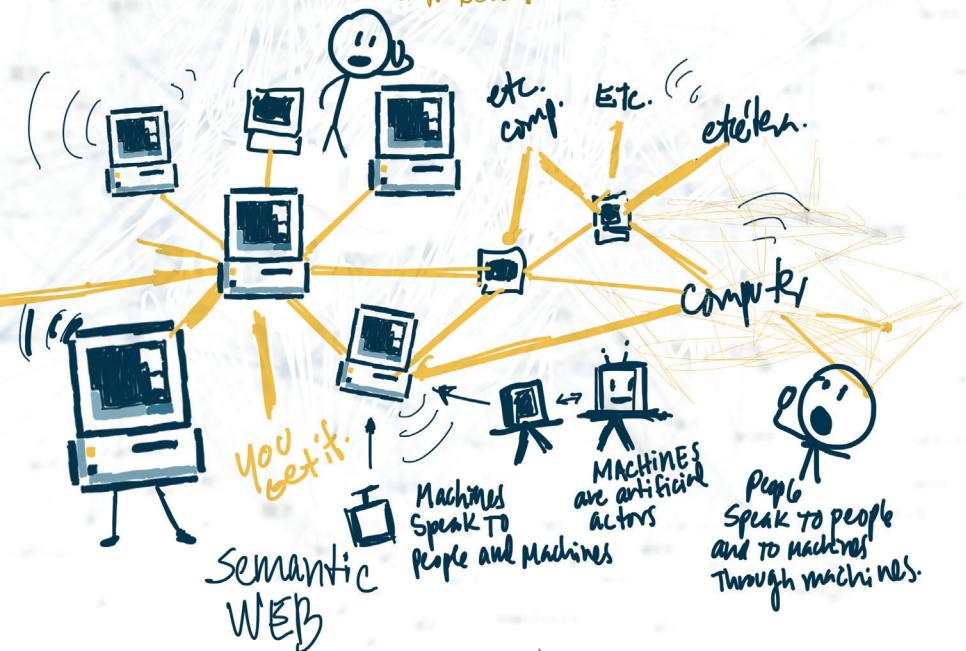
**FREE SOFTWARE IS A MOVEMENT**, open source is necessary for a software to be free. Before, when the computer era started it was normal to share and pass source code, later for profit reasons, the source codes were locked and copyrighted. FREE software stands against this idea of locking the source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



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.

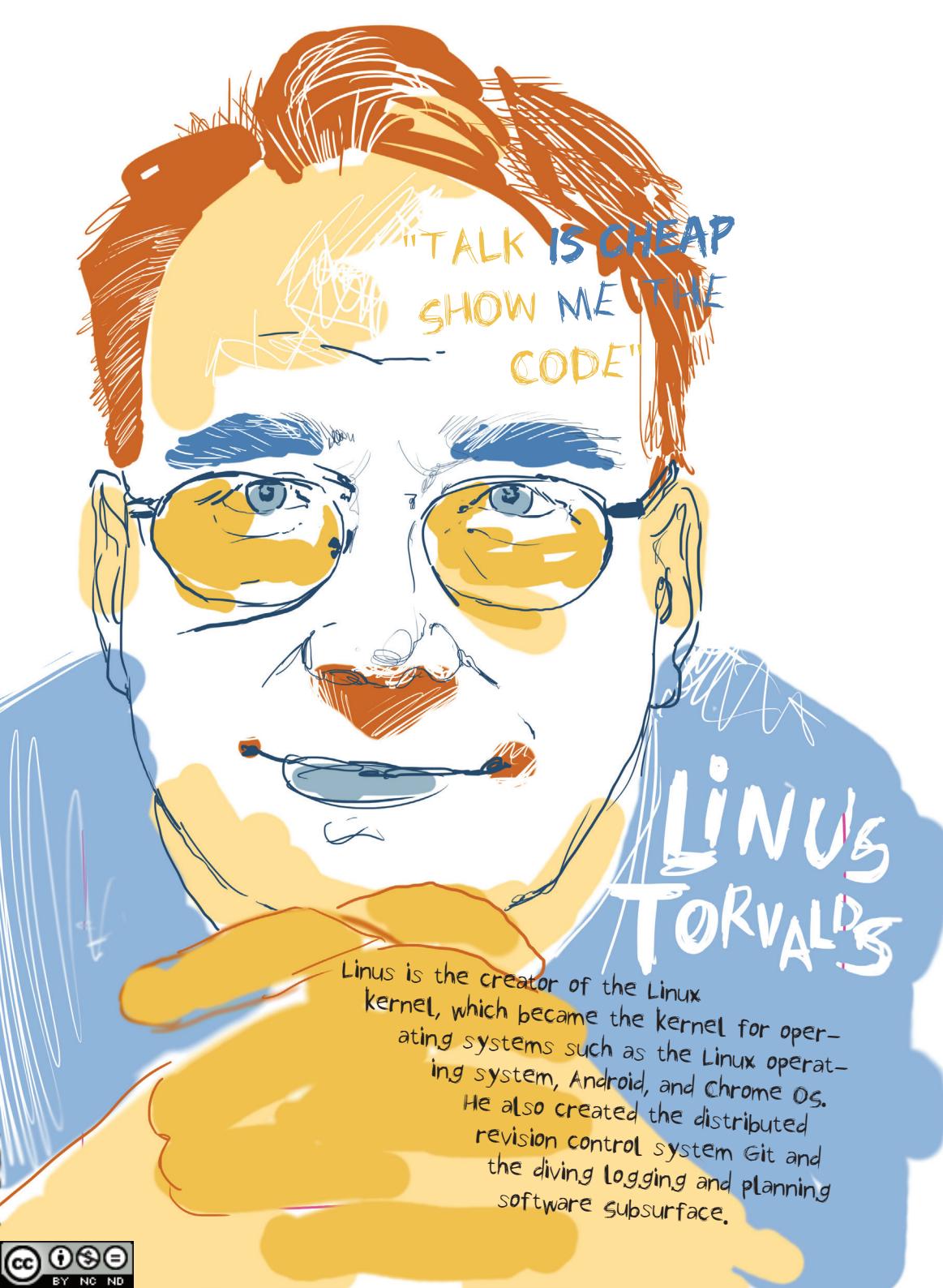
The World Wide Web is an information space where documents and other web resources are identified by Uniform Resource Locators, interlinked by hypertext links, and can be accessed via the Internet.

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.



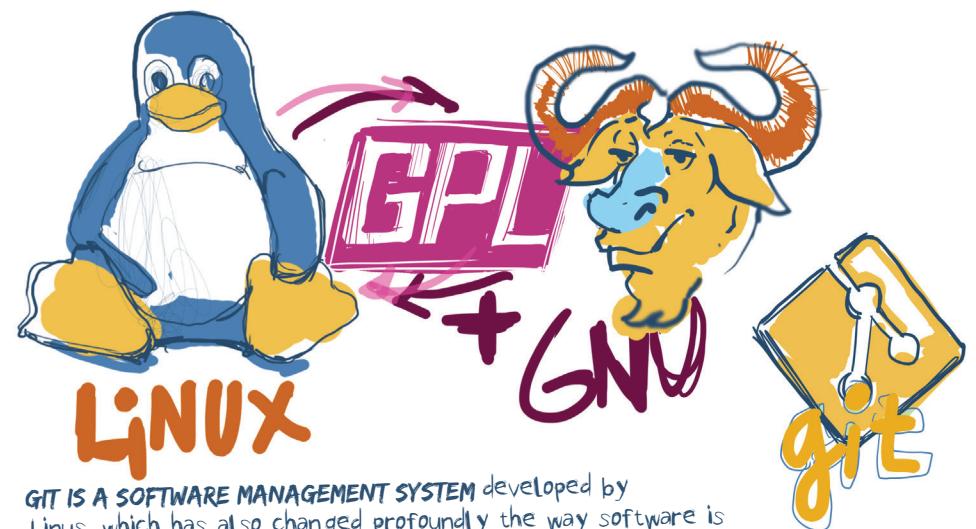
The possibility that anyone around the world can be connected, and share resources, images, videos, (any type of information), is what has allowed projects like GNU/Linux to be so successful. The open source era would have difficult times without the WWW.

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.

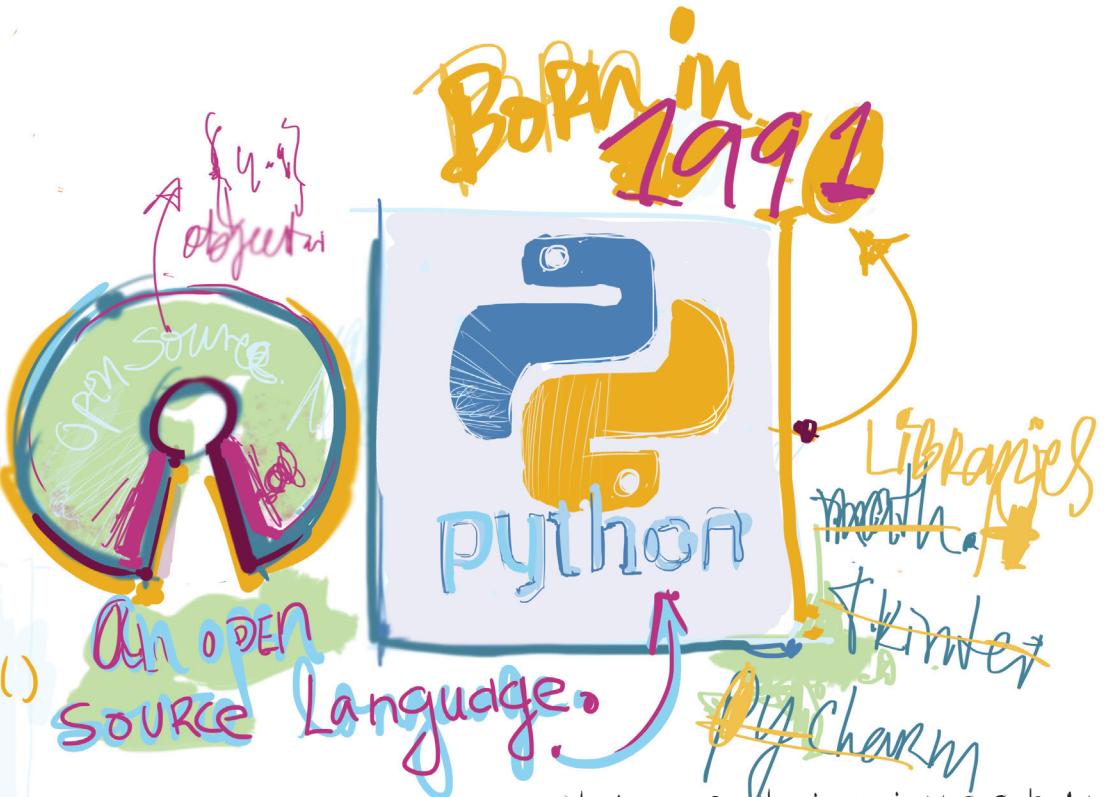


GIT IS A SOFTWARE MANAGEMENT SYSTEM developed by Linus, which has also changed profoundly the way software is developed today. Imagine that Linux distributions are released every two months involving thousands of contributors. Git is a system that allows to manage these very concurred massive projects, 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.



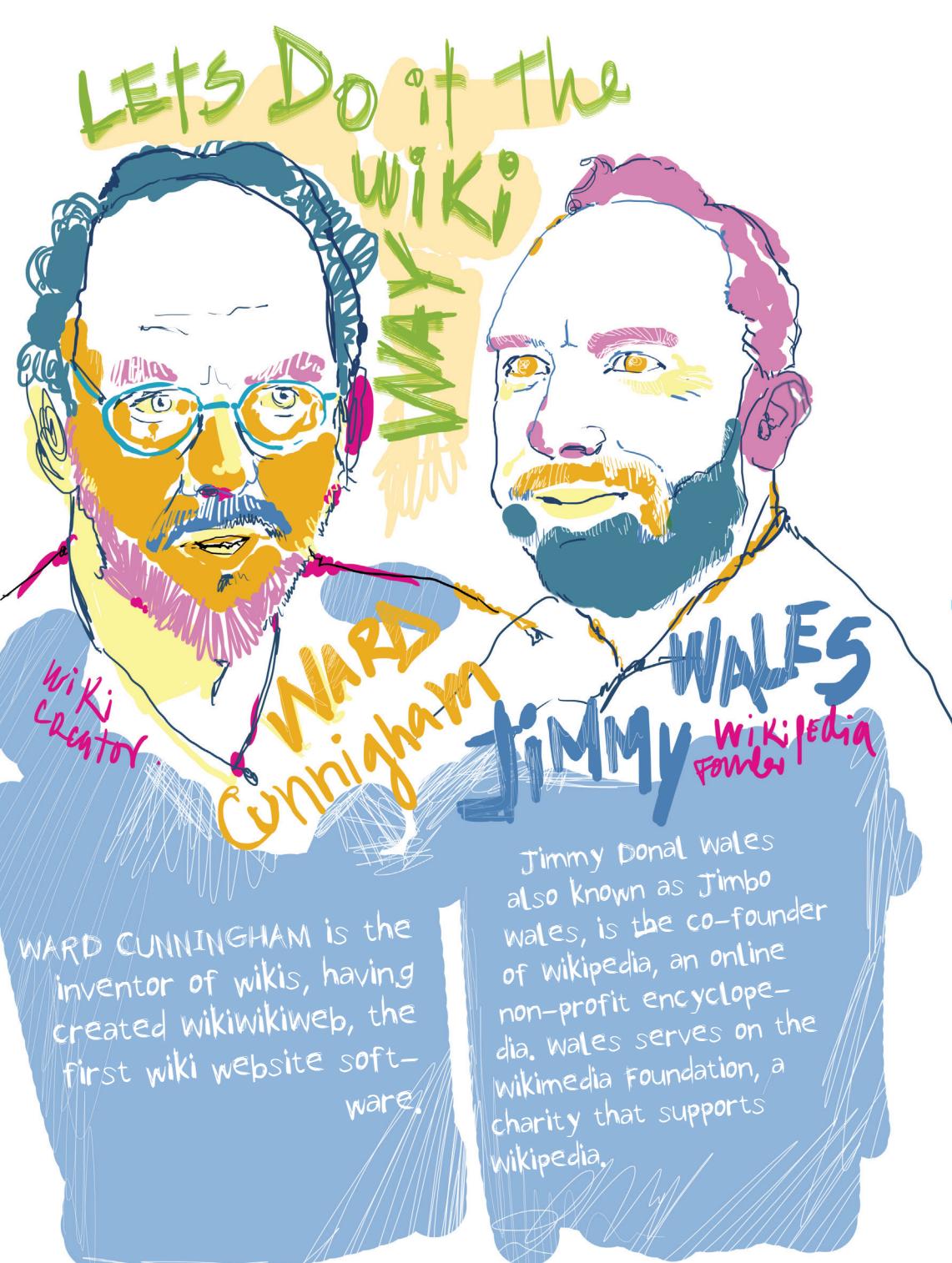
GUIDO VAN ROSSUM is a Dutch programmer who is best known as the author of the python programming language. In the python community, Van Rossum is known as a "Benevolent Dictator For Life", meaning that he continues to oversee the python development process, making decisions where necessary.



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



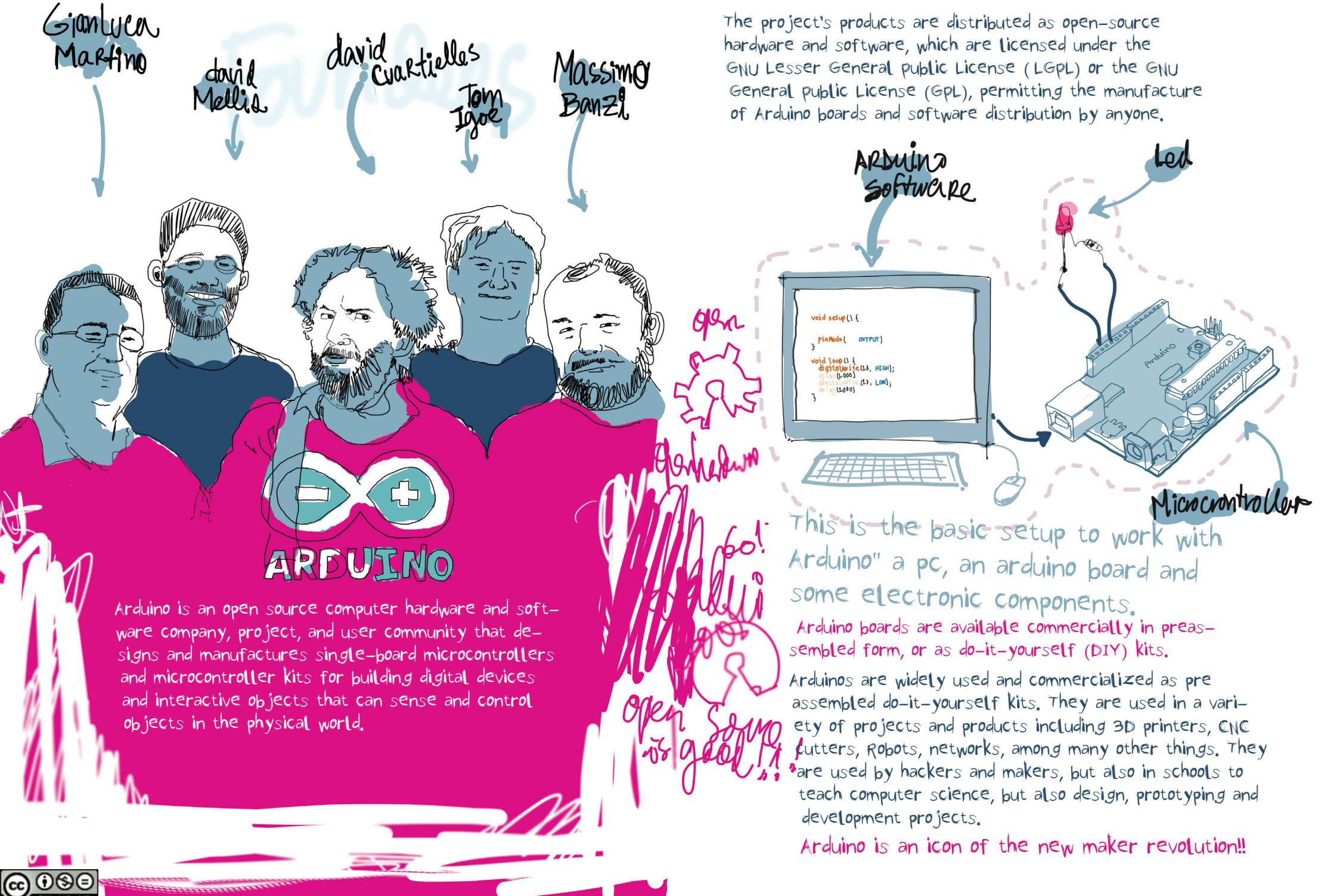
WIKIPEDIA is a free online encyclopedia with the aim to allow anyone to edit articles. Wikipedia is the largest and most popular general reference work on the Internet, and is ranked the fifth-most popular website. Wikipedia is owned by the nonprofit Wikimedia Foundation.



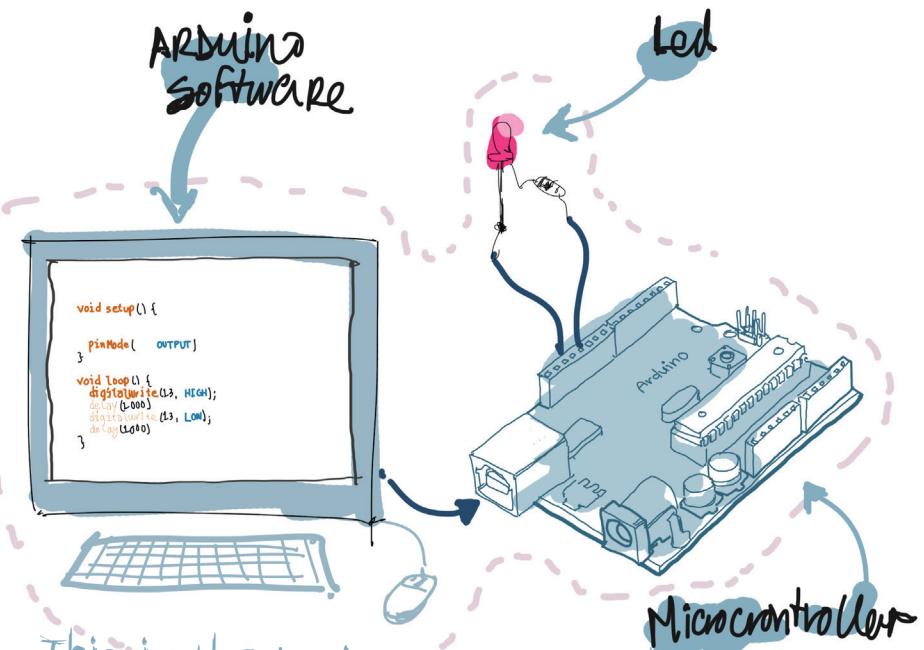
But why wikipedia has been so successful? It is because of the way in which the content is created. Thousands of people collaborate and create what you read, it is an open and collaborative approach, a peer to peer dynamics at work.

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.



The project's products are distributed as open-source hardware and software, which are licensed under the GNU Lesser General Public License (LGPL) or the GNU General Public License (GPL), permitting the manufacture of Arduino boards and software distribution by anyone.



This is the basic setup to work with Arduino" a pc, an arduino board and some electronic components.

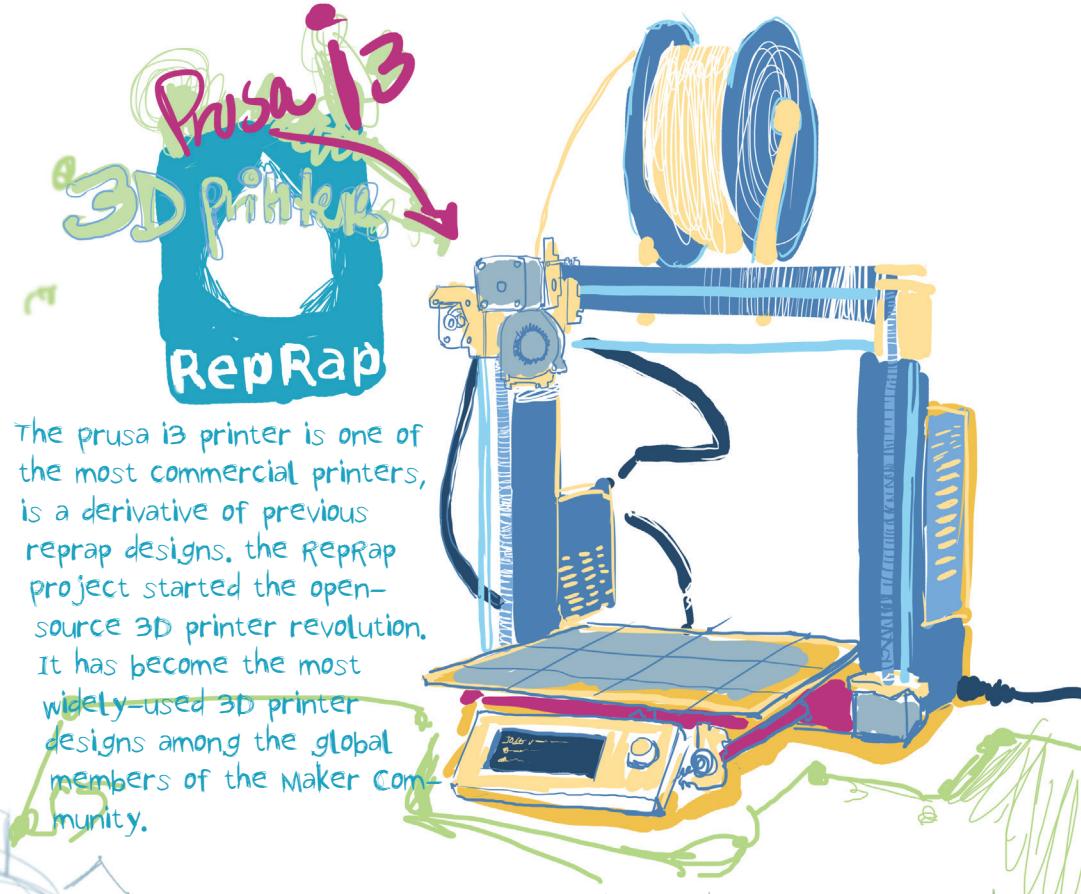
Arduino boards are available commercially in preassembled form, or as do-it-yourself (DIY) kits.

Arduinos are widely used and commercialized as pre-assembled do-it-yourself kits. They are used in a variety of projects and products including 3D printers, CNC cutters, robots, networks, among many other things. They are used by hackers and makers, but also in schools to teach computer science, but also design, prototyping and development projects.

Arduino is an icon of the new maker revolution!!



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.

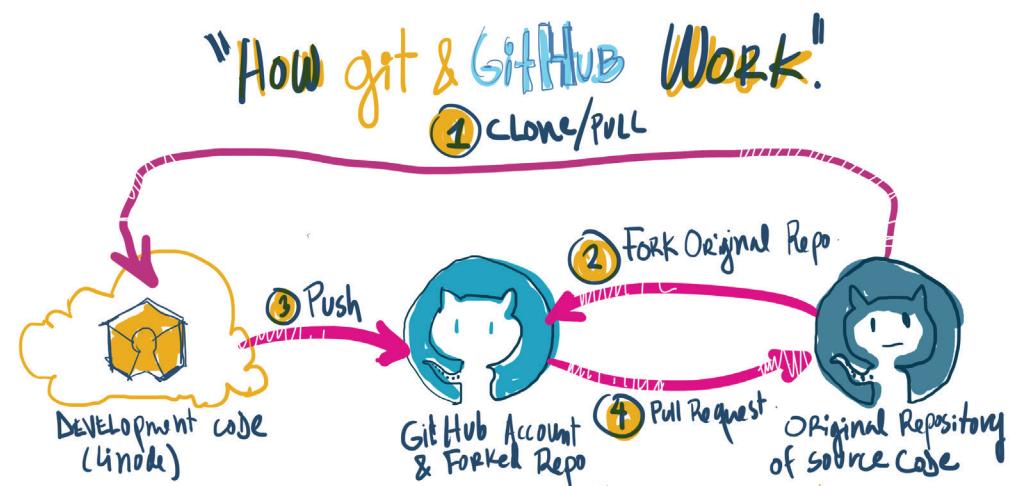
3D printers are the first high-tech equipment and fully functional commercial desktop manufacturing product, to be fully open source.

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



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.

"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."

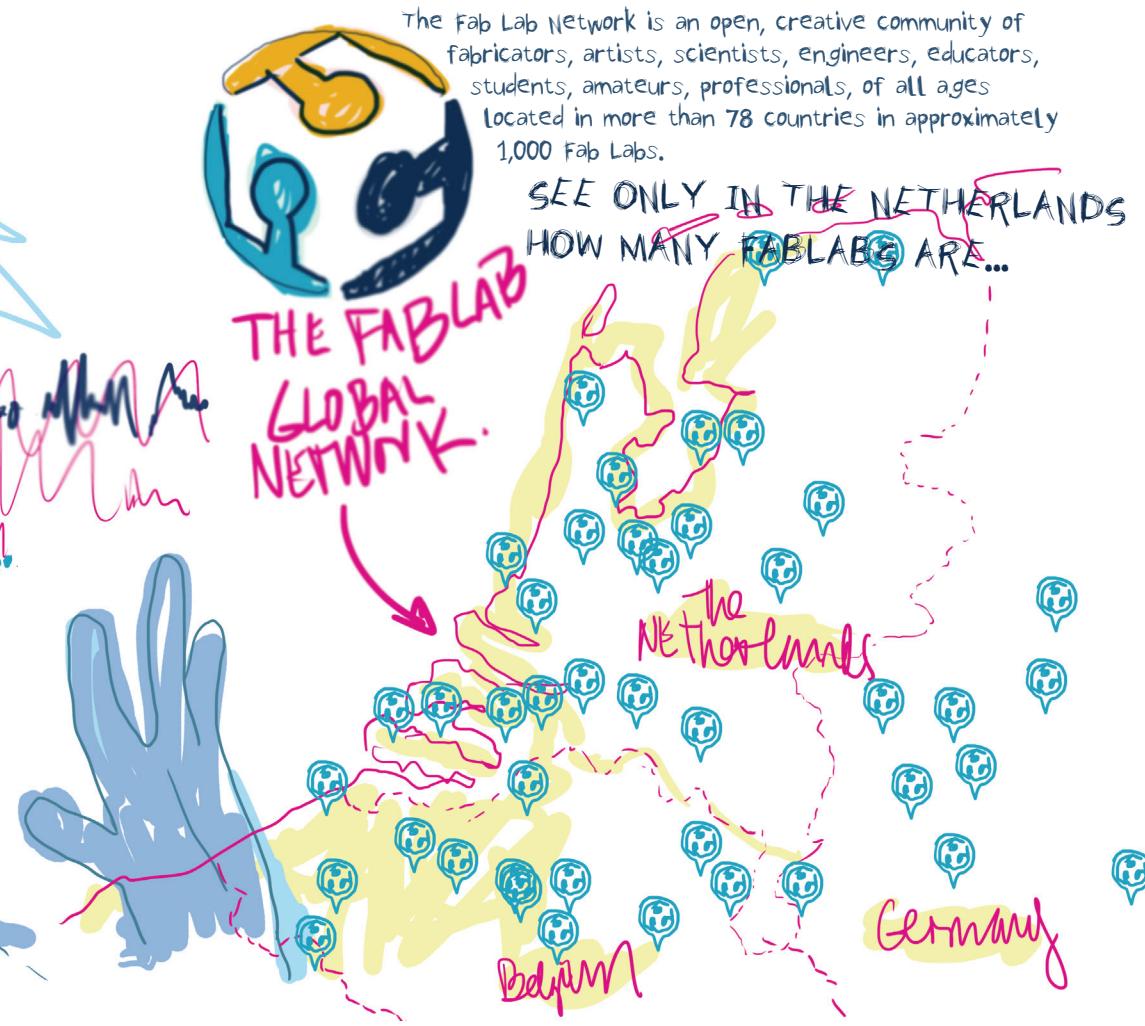
NEIL A. GERSHENFELD is a professor at MIT and the director of MIT's Center for Bits and Atoms, a sister lab to the MIT Media Lab.



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.



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

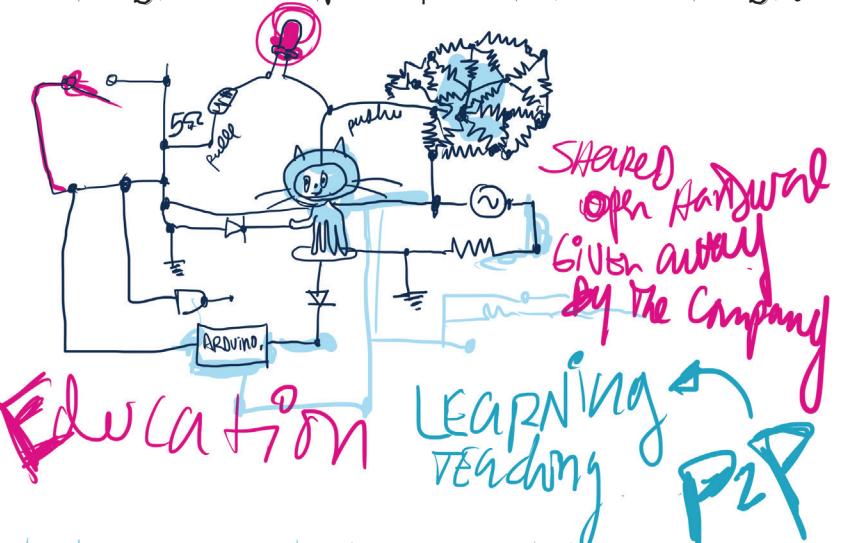


she is influential in the open-source hardware community, having participated in the first Open Source Hardware summit and the drafting of the Open Source Hardware definition, and is known for her moniker ladyada, an homage to Lady Ada Lovelace.

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

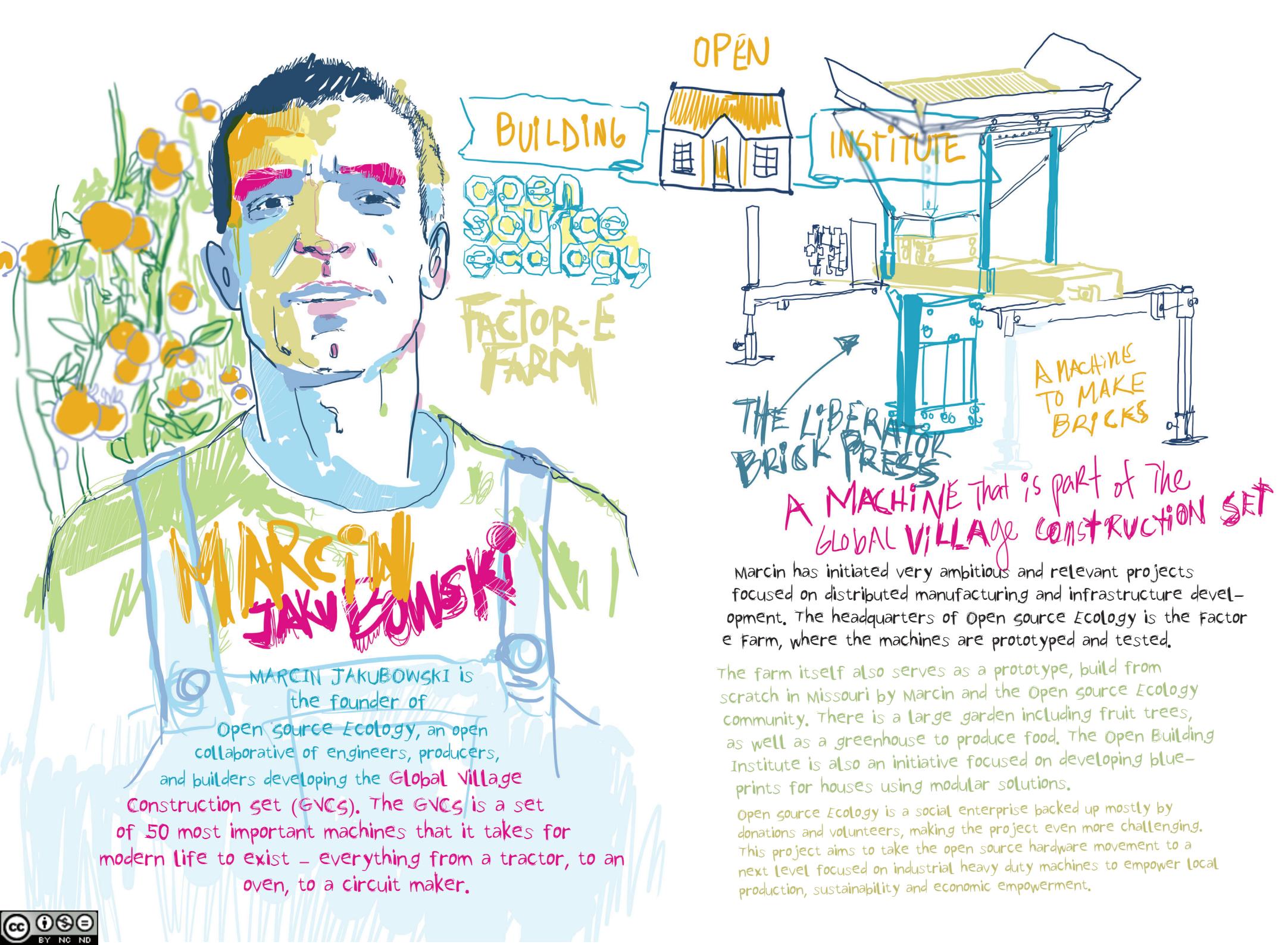
## Open source hardware principles statements:

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...



# 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

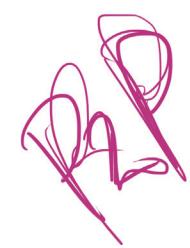
THE LIBERATOR  
BRICK PRESS

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.

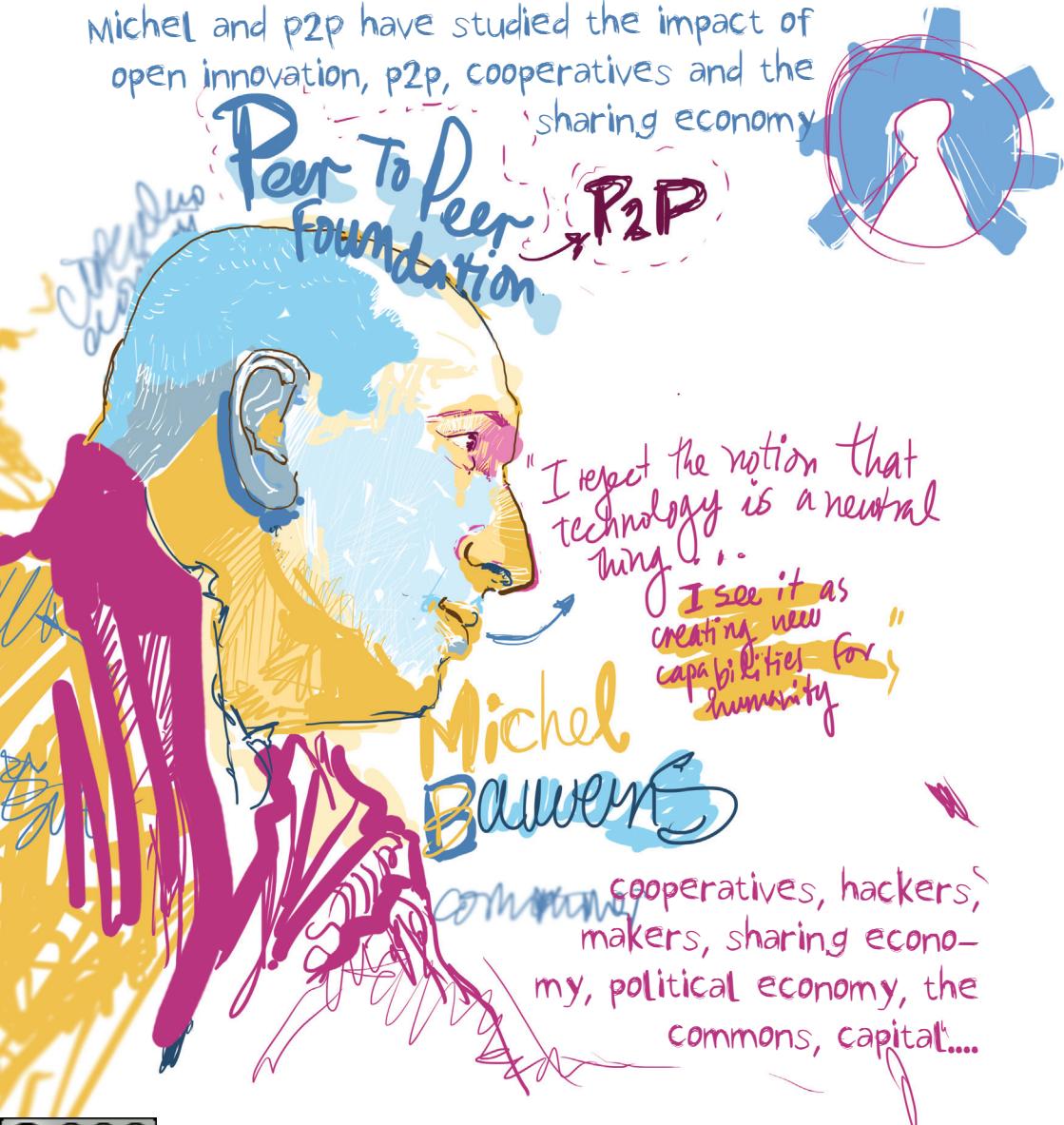
The farm itself also serves as a prototype, build from scratch in Missouri by Marcin and the Open source Ecology community. There is a large garden including fruit trees, as well as a greenhouse to produce food. The Open Building Institute is also an initiative focused on developing blueprints for houses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



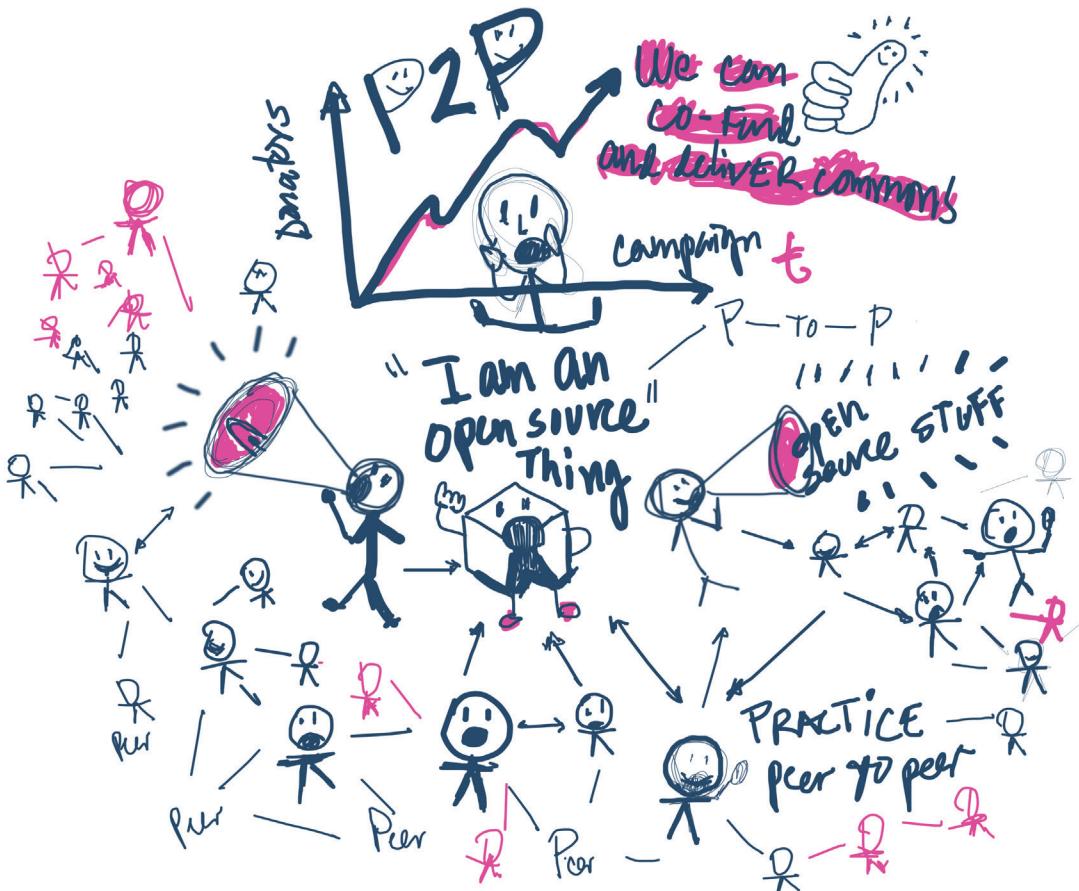
MICHEL is a peer-to-peer theorist and an active writer, researcher and conference speaker on the subject of technology, culture and business innovation. He has authored a number of essays, including his seminal thesis The political Economy of peer production.

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
2. consolidating an ethical and open cooperativism (another way of doing business and establishing economic relations).



This campaign aims to fund a first design and development iteration, which will continue in cycles to deliver partial increments towards the vision of open source appliances.

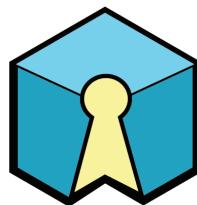
We hope to reach out successfully 2000 persons, we need your help to achieve this would you be willing to share the link with 20?

We will appreciate that you share the story and the reasons why is relevant to donate beyond acquiring this awesome material,

This campaign aims to fund a first design and development iteration, which will continue in cycles to deliver partial increments towards the vision of open source appliances.

Crowdfunding is essential to make it happen, since the goal is to activate people as essential actors in this process

Thank you very much



**GO!Commons**  
& open source things