

A”

Aalto University
Media Factory

Digital_Fabrication_Studio.01

Media, Business, Platforms

Massimo Menichinelli

massimo.menichinelli@aalto.fi

@openp2pdesign

<http://www.slideshare.net/openp2pdesign>





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This afternoon:

- * The Media ecosystem of Fabbin
- * Platforms for Fabbing and projec
- * Business models for Open projec



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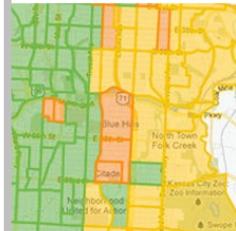
01.

The Media ecosystem for Digital Fabrication, Open Design and DIY

Wired

W I R E D

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ULTRA-HIGH-SPEED INTERNET

Google Fiber Splits Along Kansas City's Digital Divide

11 hours ago



GETTING A FACE LIFT

How Katy Perry Inspired LinkedIn's Global Redesign

12 hours ago



VIDEO GALLERY

12 Awesomely Inspiring Paralympic Moments

18 hours ago

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Underground Brings Drama to Julian Assange's Teenage Hacker Days

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WIRED OPINION

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WAR PLANS

U.S. Attack on Iran Would Take Hundreds of Planes, Ships, and Missiles

09.07.12



A DIFFERENT MOLD

New App Lets Users Design and 3D-Print iPhone Cases

11 hours ago



STORM WATCH

Why All Hurricanes Look the Same From Space

13 hours ago

COMPUTER SECURITY

Sleuths Trace New Zero-Day Attacks to Chinese Hackers Who Hit Google

09.07.12

THE FIRST AMENDMENT

ACLU Sues Police for Seizing Man's Phone After Recording Alleged Misconduct

15 hours ago

CYBERSECURITY

Pirate Bay Founder Arrested for Alleged Hack

14 hours ago



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you seamlessly
flow between
work and play.

A monthly American magazine and on-line periodical (since 1993) that reports on how new and developing technology affects culture, the economy, and politics.

Source: <http://www.wired.com/>

DIYDrones from Chris Anderson (Wired)

DIY DRONES
AMATEUR UAV SUPERSTORE
PROPELLED BY 

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DIY PRODUCTS

- All Products
- Arduino
- ArduPilot
- ArduPlane
- ArduCopter
- PX4 Autopilot
- Planes & Multicopters RTF, ARF
- GPS
- Sensors and IMUs
- Wireless/Telemetry
- Video/OSD
- Ground Station
- Servos
- Cables/Connectors
- R/C electronics
- Other electronics
- Apparel and other
- R.I.P.

WELCOME.

Our office will be closed on Monday, September 3rd in observance of Labor Day. No shipments will be made; we will resume regular shipping and operations on Tuesday.


SAME DAY SHIPPING IN STOCKED ITEMS!
FEDEX BEFORE 3PM PST USPS BEFORE 12PM PST

FEATURED PRODUCTS

| | | |
|--|---|--|
| Dean Y Cable (Female to Male connectors) Price: \$2.95 more info | Servo Y Splitter Cable 15cm (BACKORDER) Price: \$1.75 more info | Remzibi OSD 3DR Price: \$89.99 more info |
|--|---|--|





Top Sellers

3DR ArduCopter Hexa-B Frame + Motors Kit
Price: \$349.99 [more info](#)



3DR ArduCopter Hexa-B Frame + Motors kit contains the following :

- 2 Main frame boards
- 7 Aluminum arms
- 2 Center boards
- Landing gear
- Power distribution board, power cables and signal cables for PDB-APM
- Hardware needed to assemble the components above
- 6 Motors
- 6 ESCs
- 6 Propellers

New Products

| | |
|---|--|
| Female T plug - Male XT60 adapter Price: \$2.75 more info | DF13 7 Position Connector 17.7 cm Price: \$3.00 more info |
| MB1200 XL-MaxSonar-EZ0 Price: \$44.95 more info | Pre-crimped cables for DF13 connectors 5cm Price: \$2.00 more info |
| I2C Splitter Price: \$5.00 more info | ArduStation Price: \$57.20 more info |





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3DRobotics uBlox LEA-6 GPS will resume shipping tomorrow.
yesterday · reply · retweet · favorite

3DRobotics ArduCopter kits are back in the store with new lower prices! Will begin shipping 9/12.
8 days ago · reply · retweet · favorite

3DRobotics @bbatbileg Hi I just sent an email to our mold maker. We should know more tonight. My guess is 2 weeks :)
11 days ago · reply · retweet · favorite

3DRobotics @albertoc end of next week is what we are shooting for.
14 days ago · reply · favorite

Funded in 2007, a store and an online community with 26,000 members.

Source: <http://diydrones.com/> + <https://store.diydrones.com/>
<http://diydrones.com/profiles/blogs/tour-of-the-new-3d-robotics-factory>

DIYDrones from Chris Anderson (Wired)



How I Accidentally Kickstarted the Domestic Drone Boom

By Chris Anderson | June 22, 2012 | 6:32 am | Categories: Drones

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Open source drones, like this ArduCopter Quad from 3D Robotics, now outnumber military drones in the US. Photo: Misha Gravener

At last year's Paris Air Show, some of the hottest aircraft were the autonomous unmanned helicopters—a few of them small enough to carry in one hand—that would allow military buyers to put a camera in the sky anywhere, anytime. Manufactured by major defense contractors, and ranging in design from a single-bladed camcopter to four-bladed multicopters, these drones were being sold as the future of warfare at prices in the tens to hundreds of thousands of dollars.

The role of Media in promoting DIY projects ...

Source: http://www.wired.com/dangerroom/2012/06/ff_drones

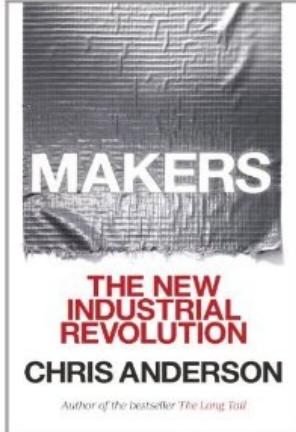
“Makers” from Chris Anderson

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Makers: The New Industrial Revolution [Hardcover]
Chris Anderson (Author)

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This title will be released on October 2, 2012.
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Book Description
Publication Date: **October 2, 2012**

Wired magazine editor and bestselling author Chris Anderson takes you to the front lines of a new industrial revolution as today's garage tinkerers and enthusiasts is about to be unleashed, driving a resurgence of American manufacturing. A generation of "Makers" the long tail of things".

Not only magazine, but also books...

Source: <http://www.amazon.com/Makers-The-New-Industrial-Revolution/dp/0307720950/>

O'Reilly Media

The screenshot shows the homepage of O'Reilly Media. At the top, there's a logo featuring a tarsier and the text "O'REILLY® Spreading the knowledge of innovators.". A navigation bar includes links for Home, Shop, Radar: News & Commentary, Answers, Safari Books Online, Conferences, School of Technology, and Community. Popular Topics like Programming, JavaScript, iPhone, Android, Python, Head First, HTML5 & CSS, Microsoft, Java, Perl, and Linux are listed. Social media icons for YouTube, Flickr, Facebook, Twitter, Google+, and RSS are also present.

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[Learn More](#) Deal Expires Sep 18, 2012 at 11:59pm PT

Free Online Events

The Joy of Combining Images with Photoshop
Presented by Lesa Snider
Date: Tuesday, Sep 11 at 10 PT

Upcoming Events

- Designing for jQuery Mobile
- Writing Extensible JavaScript Without Getting Too Enterprisey
- The Economic Impact of Open Source on Small Business
- An Introduction to Machine Learning

JavaScript Starter Kit

Find the Tools You Need to Get Started with JavaScript

"JavaScript is now a language every developer should know."
— Mike Loukides, Vice President of Content Strategy

JavaScript is everywhere: servers, rich web client libraries, HTML5, databases, even JavaScript-based languages. If you've avoided JavaScript, this is the year to learn it. And if you don't, you risk being left behind.

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Microsoft SharePoint 2010 Administrator's Companion
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Deal of the Week

An American media company (since 1978) that publishes books and Web sites and produces conferences on computer technology topics.

Source: <http://oreilly.com/>

Make: a magazine



An American quarterly magazine published by O'Reilly Media which focuses on do it yourself (DIY) and/or DIWO (Do It With Others) projects.

Source: <http://makezine.com/magazine/> + <http://make-digital.com/make/>

Maker Media

The screenshot shows the homepage of the Maker Media website. At the top center is the Maker Media logo, featuring a blue circle with a white 'M' and the text 'MAKER MEDIA™'. Below the logo is a navigation bar with links: ABOUT US, BRANDS, PRESS CENTER, WORK WITH US, and CONTACT US. The main content area contains several images: a portrait of a man, a boy working on a project, a 'Make: kits for the maker in all of us' kit with a Raspberry Pi, a 'Raspberry Pi Starter Kit' box, a close-up of a sensor module, a magazine cover for 'Make: Power Racing', a group of people at a maker event, two children working on a project, a woman smiling, and a close-up of a robotic arm or sensor assembly. At the bottom of the page, the text 'LEADING THE MAKER MOVEMENT' is displayed.

Maker Media is a global platform for connecting makers with each other, with products and services, and with our partners.

Source: <http://makermedia.com/>

Make: a blog

The screenshot shows the homepage of the Make: blog. At the top, there's a navigation bar with links for MAKE, Kits, Maker Faire, Make: Projects, and Maker Shed, along with a Search button. Below the navigation is a header featuring the large red "Make:" logo, followed by "Blog Magazine Projects Reviews Shop". A "Get MyLifeScoop.com" button is located above the main content area. To the right, there's a magazine cover thumbnail for "Make: Volume 34" with the headline "Build This Awesome Dog Ball Launcher!" and a prominent "SUBSCRIBE!" button. Below the main header, a "Hot Topics" section lists Kids, Arduino, 3D Printing, Computers & Mobile, Craft, and Raspberry Pi, with a "See All Topics" link. The main content area contains three articles: 1) "DIY Ten Step Sequencer" by Michael Colombo, showing a close-up of a green circuit board with various components and a row of red push-buttons. 2) "Mini Maker Faire Action" by Sabrina Merlo, showing a photograph of a busy maker faire booth with people interacting. 3) "Nominate Companies For The Makey Awards!" which includes a cartoon robot icon. On the right side of the page, there's a sidebar with a "Get MyLifeScoop.com" button, a photograph of a laptop displaying a website, and a "Get Free Exclusive Content!" section with an email input field and a "GO!" button. Below this, there's a call to action to "Join the Make: newsletter and receive exclusive discounts and news!". The sidebar also features two columns of category links: Art & Design, Desktop Manufacturing, Computers & Mobile, Craft, Electronics, Imaging, Kids, Makers, Microcontrollers, Recreation & Entertainment, and Robotics.

MAKE Kits Maker Faire Make: Projects Maker Shed

Search

Get MyLifeScoop.com

Make:

Blog Magazine Projects Reviews Shop

Hot Topics: Kids Arduino 3D Printing Computers & Mobile Craft Raspberry Pi See All Topics

DIY Ten Step Sequencer
ITP students Mark Kleback and Ezer Lichtenstein designed and built a ten step sequencer that can be linked to other sequencers running on the same clock speed. [Read more »](#)
By Michael Colombo, 2012/09/07 @ 12:00 pm

Mini Maker Faire Action
Mini Maker Faires are independently produced, community based, and smaller in scale than our flagship fairs, but they are still big fun with plenty mind-blowing exhibits. Three Mini Maker Faires will grace us this weekend: Calgary Mini Maker Faire (Canada): September 8, 2012 Brighton Mini Maker Faire (UK): September 8,... [Read more »](#)
By Sabrina Merlo, 2012/09/07 @ 11:15 am

Nominate Companies For The Makey Awards!
We are still looking for worthy companies to nominate for the 2nd Annual MAKE Magazine Maker Industry Awards, to be voted on by YOU and presented at World Maker Faire. We're looking for nominees in the categories of Most

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Simplify your life through technology.

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Join the Make: newsletter and receive exclusive discounts and news!

- Art & Design
- Desktop Manufacturing
- Computers & Mobile
- Craft
- Electronics
- Imaging
- Kids
- Makers
- Microcontrollers
- Recreation & Entertainment
- Robotics

Beside the magazine...

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 **Maker SHED**

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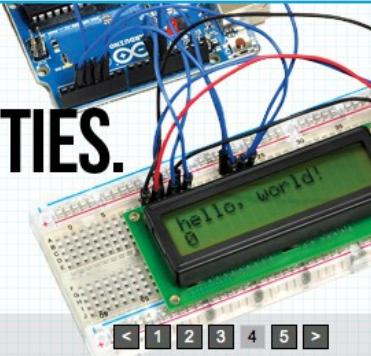
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NEW ARRIVALS

Just arrived in the warehouse! The latest selections from the staff of MAKE.

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MAKE: VOLUME 31

Come check out our newest magazine filled with awesome things to create!

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WEEKLY DEAL

Use it Quick Sugru

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Beside the magazine...

Source: <http://www.makershed.com/>

Make: a series of local faires

MAKE Kits Magazine Maker Faire Make: Projects Maker Shed Search

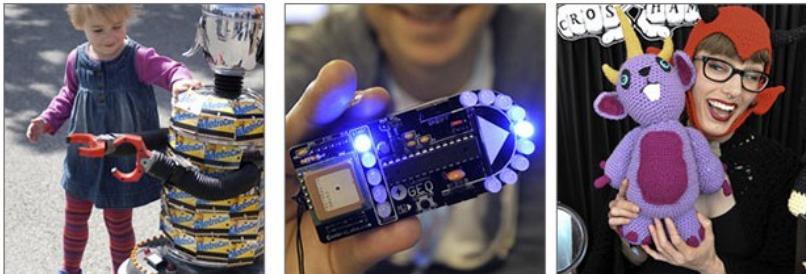
A two-day, family-friendly festival of invention, creativity and resourcefulness, and a celebration of the Maker movement.

Maker Faire®

ATTEND CHECK OUT THE HOW TO IN THE SEE ALL THE
PROGRAM PARTICIPATE MEDIA FAIRES

World Maker Faire New York

New York Hall of Science, Queens, NY
Saturday, September 29, 2012 - 10am - 7pm
Sunday, September 30, 2012 - 10am - 6pm



Over 500 Maker Exhibits!

The World's most diverse showcase of creativity and innovation in technology, craft, science, fashion, art, food and more!

3D Printer Village • Arduino Tent • BUST Craftacular Marketplace • Maker Shed Store



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WORLD MAKER FAIRE NEW YORK 2012 COUNTDOWN!

20 : 19 : 20 : 21
DAYS HOURS MINUTES SECONDS

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Maker Faire Sponsors



Beside the magazine ...

Source: <http://makerfaire.com/>

Make: a series of local faires



Beside the magazine ...

Source: <http://makerfaire.com/map.csp>

Make: a TV / online series



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Search

Blog

MAKE Magazine

Videos/Podcasts

Make: Projects

Forum/Community

Maker Shed Store

Introducing Make: television

Presenting a new national series from MAKE magazine, Twin Cities Public Television, and American Public Television.

Make: is the DIY series for a new generation! It celebrates "Makers" - the inventors, artists, geeks and just plain everyday folks who mix new and old technology to create new-fangled marvels. Check out the [Episode Guide](#) to watch segments and read descriptions of previous episodes.

[MAKE: television Episode 1: Bicycle Rodeo & VCR Powered Cat Feeder »](#)



For those of you who like to see the whole episodes of Make: television, here's a chance to see episode 1 in all its glory. Meet Cyclocide, an inventive band of performance artists who build outrageous bicycle contraptions straight... [Read More](#)

[MAKE: television Episode 2: Aerial Kite Photography & Burrito Blaster »](#)



Make: television Episode 2: Maker Cris Benton takes spectacular aerial photographs by rigging remote-controlled cameras to high flying kites. In the Maker Workshop John Park builds a Burrito Blaster, which can propel a burrito 50 yards, and Mister Jalopy... [Read More](#)

[MAKE: television Episode 3: Steampunk & Pole Camera »](#)



Enter the alternative universe of Jake Von Slatt, a leading Steampunk Maker, who turns modern technology into Victorian works of art. In the Maker Workshop, John Park mounts a remote control camera on a painter's pole to take stunning... [Read More](#)

[Make: television Episode 4: Fire Sculpture & DTV Antenna »](#)



Meet the Flaming Lotus Girls, a women-centric maker collaborative that creates gargantuan, fire-breathing sculptures. In the Workshop, John Park builds a digital TV antenna from wire coat hangers and a \$10 video camera stabilizer. William Gurstelle shows surprising uses... [Read More](#)

VISIT OUR OTHER SITES:

[Make: Craft:](#)



[Maker Faire](#)

**FREE
TRIAL
ISSUE**

**Make:
television**

**TAKE A
SHORT
SURVEY!**

Welcome to Make: television

[Episode guide and PDFs »](#)
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Make: television is a television show produced by Twin Cities Public Television and hosted by John Edgar Park which premiered in January 2009 on PBS stations.

Source: <http://makezine.tv/>

Make: a controller kit

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 **Maker SHED**

[\\$5 SHIPPING!](#)   

[!\[\]\(a1400469b748ed408ccb4c9d46975da7_img.jpg\) ALL PRODUCTS](#) [NEW ARRIVALS](#) [GIFT GUIDES](#) [GIFT CERTIFICATES](#) [MAKE CATALOG \(PDF\)](#)

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DISCONTINUED - MakeController Kit v2.0

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Our Price: \$120.00

DISCONTINUED

Availability: Currently
Unavailable
Product Code: MKMT3

+ Add To Wish List

[Click Here To Be Emailed When Back-In-Stock](#)

Description More Details

Please note: This product has been discontinued by the maker. We're looking into a replacement. If you'd like to be notified if we find one, please click on the "e-mail me when back in stock" link and we'll let you know if/when we find a substitute.

You might also like...

DISCONTINUED -Building The Perfect PC 2nd Edition

Make teamed up with MakingThings, LLC, to produce the Make Controller Kit, an open hardware solution to create interactive applications.

Source: http://www.makershed.com/product_p/mkmt3.htm

Make: Craft

The screenshot shows the homepage of the Make: Craft website. At the top, there is a navigation bar with links for MAKE, Kits, Maker Faire, Make: Projects, Maker Shed, Craft, and a search bar. Below the navigation is an advertisement for Amazon.it featuring a product for a mini MP3 player. The main header features the "Make: Craft" logo in large red letters. Below the logo are links for Blog, Magazine, Projects, Reviews, and Shop. A "Hot Topics" section lists Kids, Arduino, 3D Printing, Computers & Mobile, Craft, and Raspberry Pi, with a "See All Topics" button. The main content area has four featured projects: "Stitch it!" showing a fabric pendant, "Folding Chair Makeover" showing two chairs, "Blackwork Stop Motion Animation" showing a person working on a piece of embroidery, and "New York Maker Faire! Sept. 29 & 30, 2012" with a ticket purchase call-to-action. There is also a "Fab." section at the bottom right.

A quarterly magazine published by O'Reilly Media which focused on do it yourself (DIY) projects like knitting, sewing, jewelry, metalworking, woodworking, until 2009.

Source: <http://blog.makezine.com/craftzine/> [http://en.wikipedia.org/wiki/Craft_\(magazine\)](http://en.wikipedia.org/wiki/Craft_(magazine))

Makerbot TV

The screenshot shows the homepage of the MakerBot TV website. At the top, there's a large "MakerBot TV" logo. Below it, a main video player displays the thumbnail for "MakerBot TV S02E11 - MakerBot A Robot!" with three spools of filament (yellow, blue, red) and the text "makerBot TV". To the right of the video player is a description: "The MakerBot design team is building a Robot Petting Zoo to bring to this year's Maker Faire. In this video you'll get a behind-the-scenes look at how they conceptualized, designed and created these amazing DIY robots! Visit us at MakerBot.com Thank You: Michael Curry, Adam Fontenault, Jason...". Below the video player, there are sections for "RECENT VIDEOS" and "SUBSCRIBE". The "RECENT VIDEOS" section shows two entries: "May 21, 2012 MakerBot TV S02E12 - Maker Faire" and "May 14, 2012 MakerBot TV S02E11 - MakerBot A Robot!". Each entry has a thumbnail, a date, a title, and a brief description. The "SUBSCRIBE" section includes links to follow via RSS, Twitter, and Facebook. At the bottom, there's a "RECENT COMMENTS" section with a comment from "Craig The Fabricator" and a response from "Awesome! I've felt for a long time that these".

MakerBot TV S02E11 - MakerBot A Robot!

The MakerBot design team is building a Robot Petting Zoo to bring to this year's Maker Faire. In this video you'll get a behind-the-scenes look at how they conceptualized, designed and created these amazing DIY robots! Visit us at MakerBot.com Thank You: Michael Curry, Adam Fontenault, Jason...

RECENT VIDEOS

May 21, 2012 **MakerBot TV S02E12 - Maker Faire**
In this special Maker Faire edition of MakerBot TV, R.Maker takes you on a tour of the faire and then we chat with a few of the many MakerBot Operators we ran into over the weekend. Thank you so much to everyone who joined in the fun! Keep it awesome! Visit us at MakerBot.com Thank You:....

May 14, 2012 **MakerBot TV S02E11 - MakerBot A Robot!**
The MakerBot design team is building a Robot Petting Zoo to bring to this year's Maker Faire. In this video you'll get a behind-the-scenes look at how they conceptualized, designed and created these amazing DIY robots! Visit us at MakerBot.com Thank You: Michael Curry, Adam Fontenault, Jason...

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RECENT COMMENTS

I thought I had read something once about using acetone... Used sparingly, my understanding is that you ...
Craig The Fabricator said about MakerBot TV S02E09 - Finishing ...

Awesome! I've felt for a long time that these

An online TV show produced by Makerbot, for promoting their 3D printers.

Source: <http://makerbot.tv/>

Makerbot TV



An online TV show produced by Makerbot, for promoting their 3D printers.

Source: <https://www.youtube.com/watch?v=lX6p7ei8qRA>

Thingiverse (from Makerbot)

The screenshot shows the Thingiverse homepage. At the top, there's a navigation bar with links for THINGS, TOOLS, BROWSE, and BLOG. On the right, there's a search bar and a button to "UPLOAD A THING". Below the header, a banner reads "Digital designs for real, physical objects. A Universe of Things!" and features a "FEATURED" badge next to an image of a complex 3D-printed mechanical arm. To the right of the image, the title "Universal iPhone camera mount" is displayed, along with a brief description: "Camera mount for all your iphone camera mounting needs!". Below the description, there are several smaller images showing different views of the print and its assembly. Further down, there's a section titled "Downloads" listing four STL files: "ARM 1.STL", "ARM 2.STL", "ARM SWI...STL", and "CAP.STL", each with its file size and download count. To the right of the downloads, there's a "Instructions" section with step-by-step assembly instructions and a "Latest From The Thingiverse Blog" sidebar featuring a thumbnail for a post about a lost air hockey table.

A website for sharing 3D digital files that can be printed (with Makerbot printers).

Source: <http://www.thingiverse.com/thing:29258>



Aalto University
Media Factory

02.

Platforms Digital Fabrication, Open Design and DIY

A platform

= an extremely valuable and powerful ecosystem that quickly easily scales, morphs, and incorporates new features (called planks), users, customers, vendors, and partners.

The most vibrant platforms embrace third-party collaboration. The companies behind these platforms seek to foster symbiotic and mutually beneficial relationships with users, customers, partners, vendors, developers, and the community at large. At their core, platforms today are primarily about consumer utility and communications.

Simon, P. (2011). *The Age of the Platform: How Amazon, Apple, Facebook, and Google Have Redefined Business*. Motion Publishing.

A platform

| Attributes | Pre-Platform Age | Platform Age |
|----------------------|---|---|
| <i>Target Market</i> | Predominantly business-oriented. Planks used in an office by employees on a single device (PC). | Both business- <i>and</i> consumer-oriented. Planks used everywhere by everyone on multiple devices. |
| <i>Ecosystems</i> | Stable. Primarily comprising relatively few arms-length resellers and strategic partners. | Vibrant, robust, dynamic. Comprising individual developers and small partners. Partnerships and communities quickly form, change, and dissolve. |
| <i>Collaboration</i> | "We'll buy you or we'll crush you." Fixed pie. Competition-based. | "We want to work with you." Grow the pie together. Cooperation-based. |
| <i>Technology</i> | Mostly closed source or proprietary, sometimes available via expensive licensing. | Mostly open source and less proprietary. Often takes form of a free development kit or an API. |
| <i>Innovation</i> | Top down. Internal or via acquisition. Usually slow. | Bottom up. External or partner-based or -assisted. Much faster. |
| <i>Marketing</i> | Centralized single company campaigns, rigidly coordinated and controlled. | Comarketing and partner-driven campaigns. More independent, organic, and decentralized. |

Simon, P. (2011). *The Age of the Platform: How Amazon, Apple, Facebook, and Google Have Redefined Business*. Motion Publishing.

Etsy: a DIY / Crafts marketplace

The screenshot shows the main interface of the Etsy website. At the top, there's a navigation bar with links for 'Cart 0', 'Your Etsy', 'Help', 'Register', and 'Sign In'. Below the navigation is a header with the 'Etsy' logo, 'Buy', 'Sell', 'Community', and 'Blog' buttons, followed by a search bar containing the word 'Handmade' and a 'Search' button.

On the left side, there's a sidebar titled 'Categories' listing numerous craft categories such as Accessories, Art, Bags and Purses, Bath and Beauty, Books and Zines, Candles, Ceramics and Pottery, Children, Clothing, Crochet, Dolls and Miniatures, Everything Else, Furniture, Geekery, Glass, Holidays, Housewares, Jewelry, Knitting, Music, Needlecraft, and Paper Goods.

The main content area features several promotional sections: 'Showcase' (Fresh picks from sellers), 'Treasury' (Browse member picks), and 'Graduation Showcase' (Sellers' top picks for grads). Below these are 'Handpicked Items' with a 'See more' link, including a hand-painted high-heeled shoe, colorful bangles, a yellow and purple clutch bag, and a set of shopping day earrings. There are also four smaller items shown below these: a blue and green ceramic fish figurine, a chainmail bracelet, a stained-glass sun catcher, and a red fabric pouch.

The biggest marketplace for your
DIY / Crafts projects.

Source: <http://www.etsy.com/>

Etsy: a platform for DIY

Buy Sell Registry Community Blogs Mobile Help

Etsy Register Sign In Search for items and shops Search Cart

Home > Developers

Developers Home Documentation Discussion API Terms of Use

Your Developer Account Register as a developer Migrate your account

Looking for Etsy Apps? Check out our new App Gallery! It's the best way to find cool and useful tools built upon Etsy's API.

Developers Your place to code all things handmade

Welcome To the Etsy Developer Community

We believe in code as craft. Join Etsy's community of makers, artists and creators and build tools that enrich the ways you can shop, sell and connect in the world's most vibrant handmade marketplace.

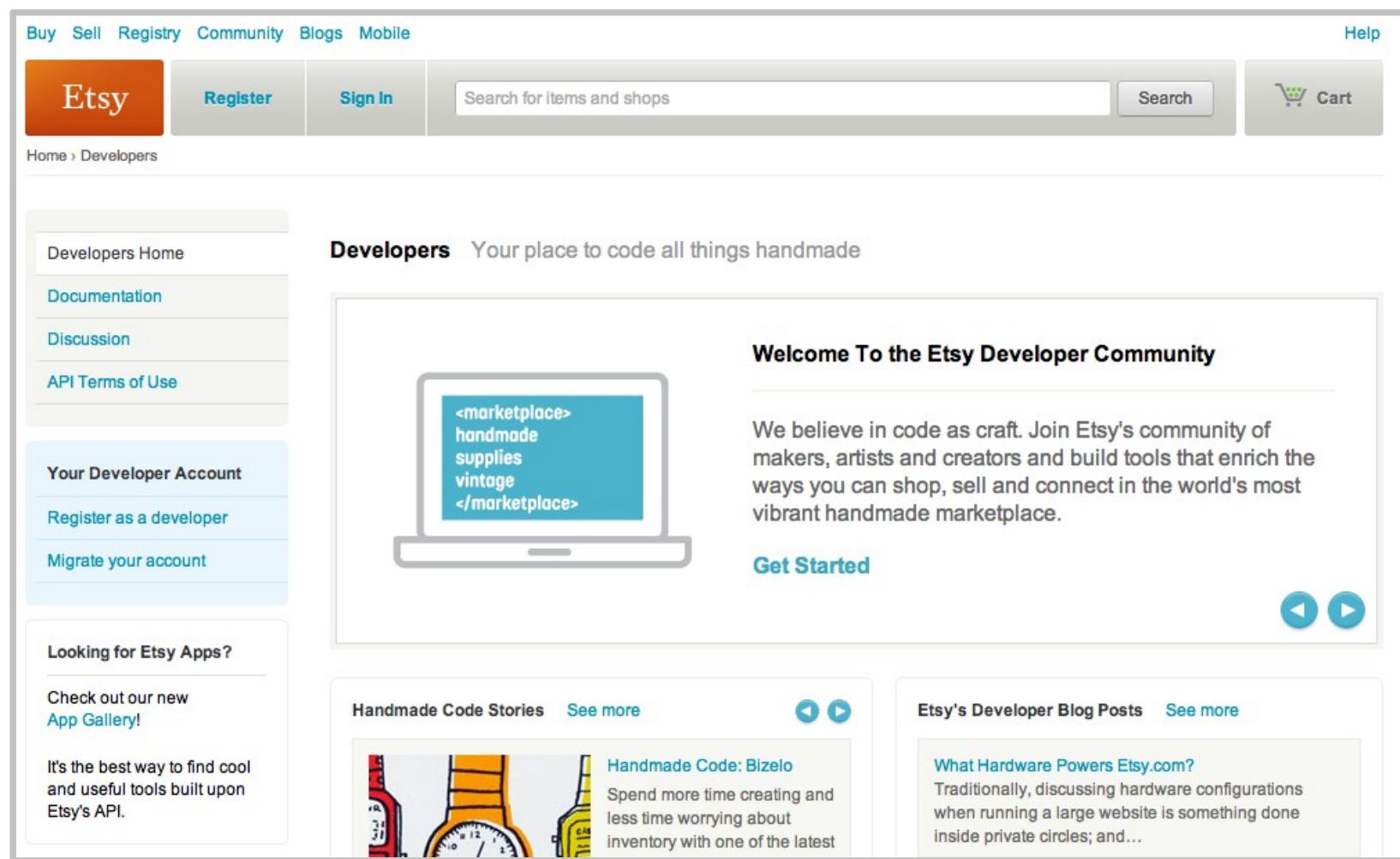
Get Started

Handmade Code Stories See more

Handmade Code: Bizelo Spend more time creating and less time worrying about inventory with one of the latest

Etsy's Developer Blog Posts See more

What Hardware Powers Etsy.com? Traditionally, discussing hardware configurations when running a large website is something done inside private circles; and...



With also open API for interacting with the platform!

Source: http://www.etsy.com/developers?ref=ft_dev

Etsy: a platform for DIY



0:15 / 4:27



The biggest marketplace for your
DIY / Crafts projects.

Source: <http://www.youtube.com/watch?v=RmXJXYHnWPo>

Blomming: another platform for DIY

The screenshot shows the homepage of the Blomming website. At the top, there is a navigation bar with links for "HOW IT WORKS", "WHY IT WORKS", "PRICING", "SUPPORT", and "LOG IN". Below the navigation is the Blomming logo, which features a green chameleon and the word "blomming" in lowercase, with "the social e-commerce" written underneath. To the left, there is a grid of six product images: a grey shoulder bag, a white owl-shaped plush toy, a blue necklace with a large green stone, a woman wearing a patterned handbag, a blue dress with black trim, and a row of colorful tassels. A large green button labeled "EXPLORE" is positioned below these images. To the right, there are two main sections: "buy" and "sell". The "buy" section contains the text "FIND & DISCOVER THOUSANDS OF UNIQUE OBJECTS AND FINE ITEMS, ALWAYS UPDATED". The "sell" section contains the text "PUBLISH & SHARE ON FACEBOOK, ON YOUR WEBSITE, ON YOUR BLOG, ON BLOMMING". Above the "sell" section is a "SIGN UP WITH facebook" button and a "OR SIGN UP WITH YOUR EMAIL" link. Below these are fields for "Username", "E-Mail", and "Password", each with a corresponding input box. A note at the bottom of this section states: "By signing up you accept our [Terms of Service](#) and [Privacy Policy](#)". To the right of the "sell" section is a brown button labeled "OPEN YOUR SHOP" with a green "FREE" badge. At the bottom of the page, there is a call to action: "Install the Blomming app on your mobile device" with icons for iPhone and Android. The footer contains links for Blomming (About / Blog, Magazine Newsletter), Legal (Terms of Service, Privacy Policy, Acceptable Use Policy), Social (Facebook, Twitter, Google+), and various media logos (TC, WIRED, Gartner 2012 Cool Vendor, 24 DRE, TNW, la Repubblica). It also includes a language selection dropdown set to English, and social sharing icons for Facebook, Twitter, and Google+.

A platform for embedding your e-commerce store in your own website.

Source: <http://blomming.com/>

Ponoko (New Zealand)

The screenshot shows the Ponoko website homepage. At the top, the Ponoko logo is displayed with the tagline "the world's easiest making system". Below the logo is a navigation bar with links: home, buy, sell, make, apps, blog, and support. A decorative banner with red silhouettes of crabs and hearts runs across the top. The main headline reads "The future of products is here" followed by "Personal Factory™ 5". A sub-headline states "Now with App Gateway to create almost anything, and CNC routing to make big things." Below this, there are two buttons: "How it works »" and "Pricing from \$0 »". To the right, a woman is sitting in a wooden armchair, writing in a notebook. In front of her is a small wooden table with a red 3D-printed cube with an exclamation mark on it. Four callout bubbles point to the cube: "Electronics", "3D printing", "Laser cutting", and "CNC routing". Navigation arrows are located at the bottom right of the image.

Online service and marketplace (open your own shop) with laser cutting, cnc routing, 3D printing, electronic components through local hubs.

Source: <http://www.ponoko.com>

Ponoko (New Zealand)

Digital making hubs

Personal Factory connects you to a global, digital making network.

Current making hubs are listed below. Select a hub closest to where you live that offers the methods and materials you're looking for.

You will be taken to a page where you can sign up for a free Personal Factory account or login if you already have one.

Note: Digital making methods and material selections vary at each hub, because each one works with their own equipment and local material suppliers.

| Location | Website | Methods | Materials |
|-----------------------|--------------|---|-------------------------------------|
| United States | | | |
| CA Oakland | Ponoko | 3D printing CNC routing laser cutting | materials materials materials |
| GA Atlanta | Ponoko | CNC routing | materials |
| New Zealand | | | |
| Wellington | Ponoko | laser cutting | materials |
| Germany | | | |
| Berlin | Formulor | laser cutting | materials |
| Italy | | | |
| Milan | Vectorealism | laser cutting | materials |
| United Kingdom | | | |
| London | RazorLAB | laser cutting | materials |

Online service and marketplace (open your own shop) with laser cutting, cnc routing, 3D printing, electronic components through local hubs.

Source: <http://blog.ponoko.com/digital-making-hubs/>

Ponoko (New Zealand)

The screenshot shows the Ponoko Apps developer program page. At the top, the Ponoko logo is displayed with the tagline "the world's easiest making system". Below the logo is a navigation bar with links: home, buy, sell, make, apps, blog, and support. A decorative banner with red and white shapes follows. The main heading is "Apps" with sub-links "App Gateway" and "Developer Program". To the right is a blue icon of a smartphone with gears. Below this, a section titled "Personal Factory Developer Program" is shown with the subtext "Build apps for Personal Factory and distribute them in the Personal Factory App Gateway". A red button says "Join now (it's free) »". To the right is an icon of a hammer hitting a gear on a binary code background. Below this are two more sections: "Create an app" (with an icon of a hammer and gear) and "Developer resources" (with an icon of a blue character with a question mark). To the right is a box for the "Personal Factory App Gateway" with the text "is coming soon!" and a "Learn more »" button.

Online service and marketplace (open your own shop) with laser cutting, cnc routing, 3D printing, electronic components through local hubs.

Source: <http://www.ponoko.com/app-gateway/developer-program>

Shapeways (Netherlands/USA)

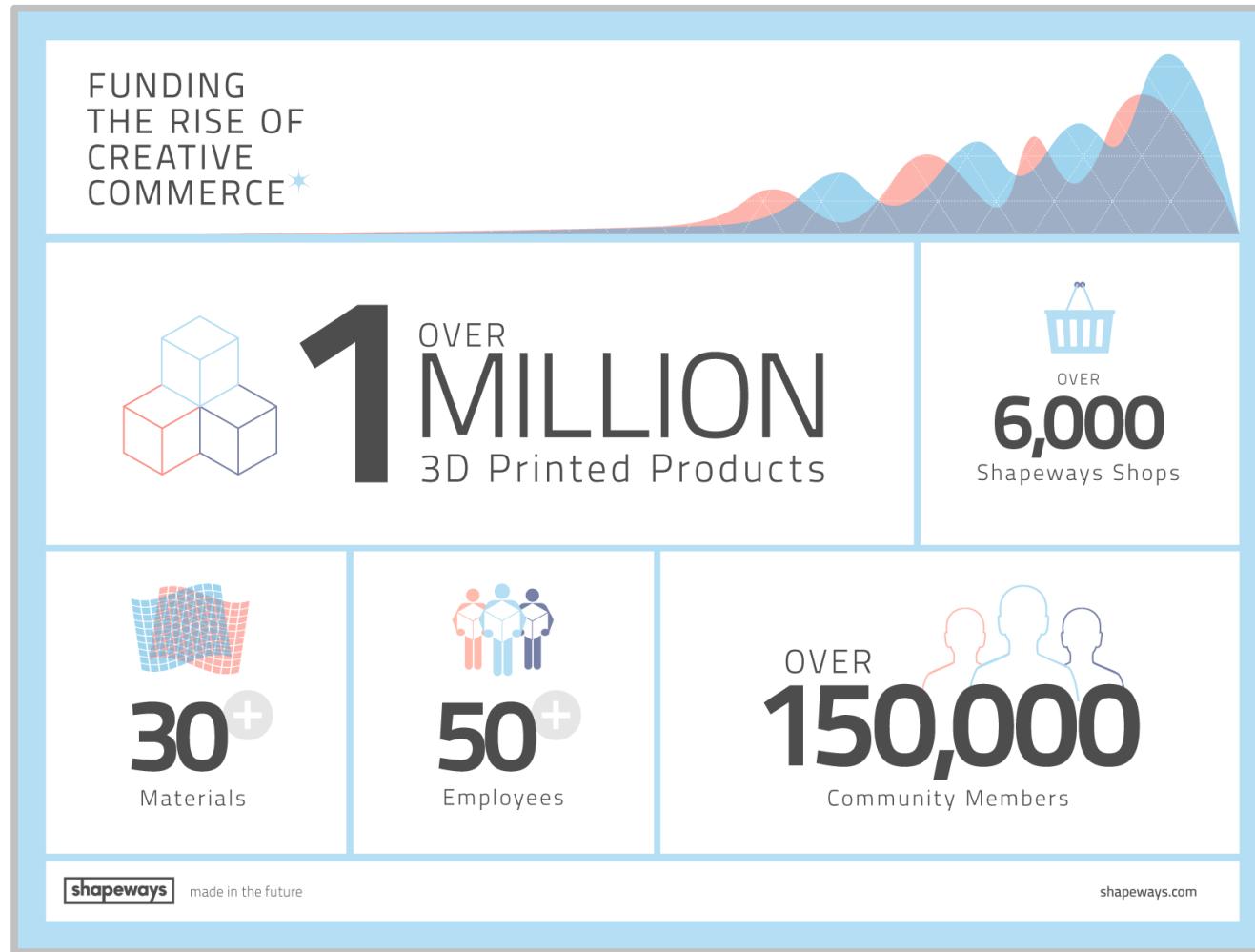
The screenshot shows the Shapeways homepage. At the top, there's a navigation bar with links for 'Create', 'Discover', 'Community', 'Go', 'Cart', 'Register', and 'Log in'. Below the navigation is a banner featuring a video thumbnail of a person holding a 3D-printed vase with flowers, with the text 'Shapeways 3D Printing & the Culture of Creativity' and a 'More Info' link. To the right of the banner, the tagline 'Make & Share Your Products With 3D Printing' is displayed, along with a 'Join Now!' button and a link to 'Upload now'. Below the banner, there's a section titled 'Discover 3D Printed Products' with four product cards:

- Animaris Geneticus Par...** by Theo Jansen. A white, lattice-like 3D-printed sculpture. Rating: 5 stars (107 reviews). Price: From €90.73.
- Bicycle Chainring Cuffli...** by GothamSmith. Three cufflinks designed to look like bicycle chainrings. Rating: 5 stars (75 reviews). Price: From €56.62.
- Klein Bottle Opener** by Bathsheba Sculpture LLC. An intricate, twisted metal bottle opener shaped like a Klein bottle. Rating: 5 stars (18 reviews). Price: From €72.66.
- Moustache Cufflinks** by GothamSmith. A pair of cufflinks designed to look like mustache shapes. Rating: 5 stars (11 reviews). Price: From €56.62.

Online service and marketplace (open your own shop) with 3D printing.

Source: <http://www.shapeways.com>

Shapeways (Netherlands/USA)



Online service and marketplace (open your own shop) with 3D printing.

Source: <http://www.shapeways.com/blog/archives/1442-Funding-the-Rise-of-Creative-Commerce.html>

Shapeways (Netherlands)



Online service and marketplace (open your own shop) with 3D printing.

Source: http://www.youtube.com/watch?feature=player_embedded&v=qJuTM0Y7U1k

i.materialise (Belgium)

The screenshot shows the homepage of i.materialise (Belgium). At the top, the logo "i.materialise" is displayed in a blue, handwritten-style font. To its right is a navigation bar with links: Home, Creation corner, 3D print lab, Materials, Gallery, About us, and Blog. Below the navigation is a large banner featuring several 3D-printed objects made of metal, including a tall totem-like figure and a golden humanoid. To the right of these objects, the text "got metal ?" is written in a large, white, sans-serif font. Below this, smaller text reads "Yes, we do! Titanium, Brass, Bronze, Stainless steel, Gold plated stainless steel, Silver and Gold." A series of five small circular icons are positioned at the bottom right of the banner. Below the banner, the page is divided into two main sections. On the left, under the heading "WHAT CAN I DO HERE?", there is an illustration of a green 3D-printed crocodile model with yellow teeth, followed by the text "Upload and Order" with a right-pointing arrow, and a 3D-printed green bear model. Below this is a button labeled "3D print your designs". Underneath the button, a paragraph explains the service: "Upload your 3D design and instantly see the price for your models. It's that easy." A bulleted list follows: "No login necessary", "Choose from a large selection of materials and colors", "Scale your model to the ideal size", and "Order as many copies as you want". On the right, there is a photograph of four people (three adults and one child) smiling. Below this is a button labeled "Sell your designs". A paragraph next to it encourages users to "show off your design talent and make some money at the same time" by offering their designs for sale in the gallery. An orange horizontal bar runs across the bottom of the page.

Online service and marketplace (open your own shop) with 3D printing.

Source: <http://i.materialise.com/>

Sculpteo (France)

Sculpteo.com | Stores | Workshops | Blog | Professionals

English | Français | Login | Register

sculpteo | 3D Printing

Home Services Materials Support Cloud Engine App FAQ

[Upload a 3D file](#)

POLISHED PLASTIC IS COMING ON STAGE

Get another feeling on your creations!
[Learn more on this material](#)



Innovative 3D printing service for creative people

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Upload your 3D file and have it printed by Sculpteo.
[Upload 3D file](#)



Design at your fingertips
We develop online 3D tools and workshops to give you the best 3D printing results. Try them !
[Create objects](#)



Sell your creations
Open your store in our 3D printing marketplace. Sell your creations and get benefits.
[Open your store](#)



Get inspired
Browse our designers' collections, get inspired and have them 3D printed !
[Visit Designers Stores](#)



Get in touch
Keep in touch with Sculpteo with our monthly newsletter.
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PARTICULE¹⁴
PARTICULE 14 PROJECT FOR INTERNATIONAL DESIGN WEEK OF MILAN
[Learn more](#)

Follow us

News
Sept. 5, 2012 How-To 3D Print Glasses
Cordavi is a student at San Jose State University studying Digital Media Arts, and an avid user of T...

Online service and marketplace (open your own shop) with 3D printing.

Source: <http://www.sculpteo.com/en/>

Inventables (USA)

INVENTABLES®
The Hardware Store for Designers

Search by keyword or part number

Sheet Materials

LASER CUTTING

- Accessories
- Acrylic Sheets
- Cuttable Sheets
- Laser Cutters
- Wood

INNOVATIVE MATERIALS

- 3D Printer Filament
- Coatings
- Components
- Electrical & Light
- Magnets
- Molding Materials
- Unexpected Properties

RAW MATERIALS

- Films
- Foam
- Gel
- Glass
- Glow in the dark
- Metal
- Paper & Cardboard
- Pigments
- Plastic & Rubber
- Textiles, Thread & Yarn
- Wax
- Wood

HARDWARE

- Fasteners
- Tools

Sheet Materials

Acrylic Sheets
Over 100 varieties of acrylic sheets in various colors, sizes, styles and textures.

Wood Veneer
Thin veneers good for laminating and laser engraving

Anodized Aluminum
10 colors good for laser engraving

Cork Fabric and Sheet
4 paper thin cork patterns for cutting, gluing, and sewing

Hardware and Materials for Desktop Fabrication

MakerSlide Components
MakerSlide and Componentry for building machines

Machines
Machines for making, Shapeoko CNC Mill, 3D Printer, Laser Cutter

3D Printer Filament
8 colors of 1.75mm ABS and PVA filament

Molding Materials
Plastic, rubber, and putties for molding

Electrical & Light

Online store for materials, components and machines for digital fabrication and DIY.

Source: <https://www.inventables.com/>

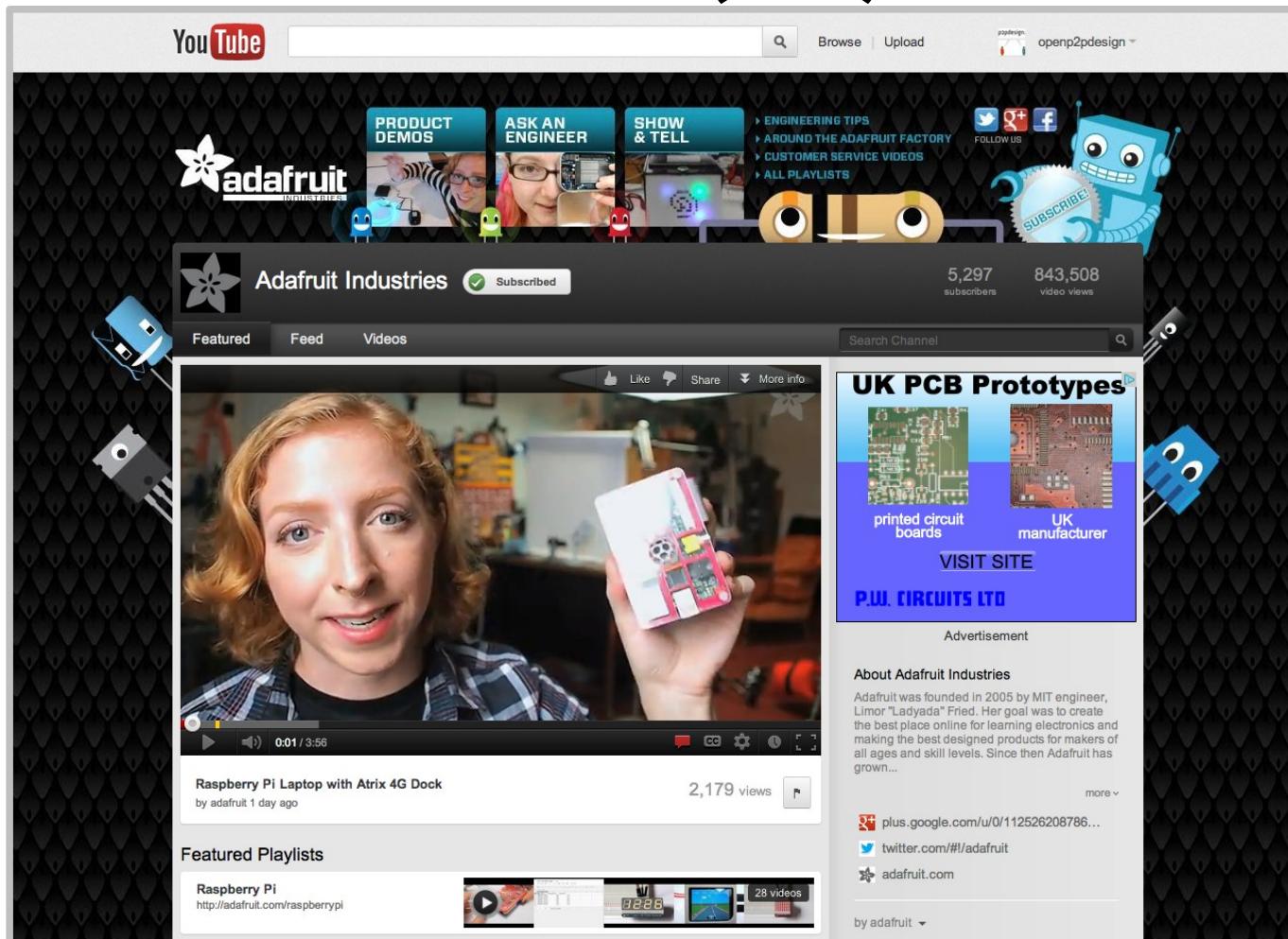
Adafruit (USA)

The screenshot shows the Adafruit website homepage. At the top is the Adafruit logo with a stylized flower icon. The main navigation menu includes links for HOME, BLOG, FORUMS, SUPPORT, TUTORIALS, CHAT, VIDEOS, CONTACT, JOBS, and ABOUT. A search bar with a GO button is also present. On the left, a sidebar titled 'PRODUCTS' lists 'New Products [121]' under categories like Android, Arduino, BoArduino, BeagleBone, mbed, PIC, Breakout Boards, Clocks & Watches, Discover Electronics, Drawdio, EggBot, FLORA, FPGA, Fuzebox, littleBits, Game of Life, Microtouch, MiniPOV, MintyBoost, NETduino, Power supply, Propeller, Raspberry Pi, SIM reader, Snap Circuits, SpokePOV, TV-B-Gone, Tweet-a-Watt, and XBee. It also lists Project packs (9) and RFID / NFC (12). The main content area features a large image of an Arduino board with an NFC/RFID shield attached, demonstrating touchless communication with a small blue NFC tag. Below this is a section for 'Latest blog entries' with a link to 'Made in the UK! #piday #raspberrypi @Raspberry_Pi'. Three product cards are displayed at the bottom: 'Drawdio kit' (\$17.50), 'Adafruit ARDX - v1.3 Experimentation Kit for Arduino (Uno R3)' (\$85.00), and 'XBee Adapter kit' (\$10.00). Each card includes a 'LEARN MORE' button.

Online store of Open Hardware projects and electronic components.

Source: <http://www.adafruit.com/>

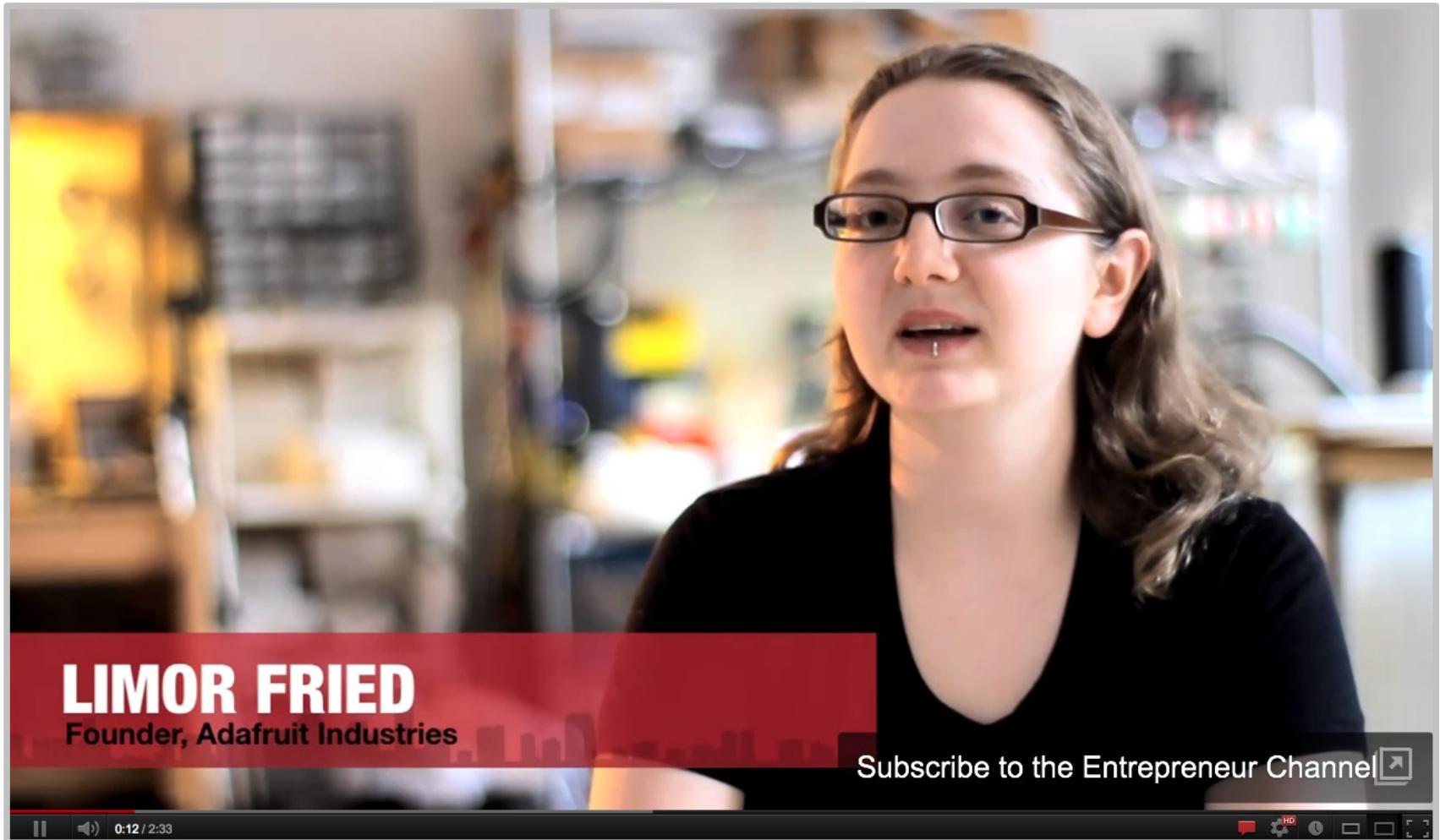
Adafruit (USA)



Online store of Open Hardware projects and electronic components.

Source: <http://www.youtube.com/user/adafruit>

Adafruit (USA)



Online store of Open Hardware projects and electronic components.

Sparkfun (USA)

The screenshot shows the Sparkfun website homepage. At the top, there's a navigation bar with links for Products, Support, Tutorials, Distributors, About Us, Contact, and a search bar. A red banner at the top features the letters 'K' and the text 'SPARKFUN APPROVED KICKSTARTERS'. Below the banner, there's a sidebar titled 'Categories' with a list of product categories like New Products, Top Sellers, Featured Products, Gift Certificates, Classes & Events, Books, Breakout Boards, Cables, Cellular, Components, Development Tools, Dings and Dents, E-Textiles, Educators, GPS, Kits, LCDs, Port-O-Rotary, Programmers, Prototyping, Retail, Retired, Robotics, Sale, Sensors, Swag, Tools, Widgets, and Wireless. The main content area has a 'Latest News' section with a post titled 'AVC 2013 - The Next Chapter' by Robert C. dated September 06, 2012. The post discusses changes to the Autonomous Vehicle Competition (AVC) for 2013. Below the news is a photograph of a person in a blue shirt operating a quadcopter drone on a paved surface with yellow diagonal lines. To the right of the news, there's a 'New Products' section with three items: 'RGB LED Strip - 32 LED/m Addressable - 1m' (\$44.95), 'LilyPad LED Purple (5pcs)' (\$4.95), and 'Hook-Up Wire - Assortment (Stranded)' (\$16.95). Further down is a 'Featured Products' section with three items: 'SparkFun Projects Case - Clear' (\$11.95), 'LED - RGB Diffused Common Cathode' (\$1.95), and 'Hackerspace Passport' (\$1.95). At the bottom right, there's a 'What is BatchPCB?' section with a brief description.

0 items in cart | \$ USD | You are not logged in. | log in | SPARKFUN APPROVED KICKSTARTERS

Products Support Tutorials Distributors About Us Contact search...

Categories

- New Products
- Top Sellers
- Featured Products
- Gift Certificates
- Classes & Events
- Books
- Breakout Boards
- Cables
- Cellular
- Components
- Development Tools
- Dings and Dents
- E-Textiles
- Educators
- GPS
- Kits
- LCDs
- Port-O-Rotary
- Programmers
- Prototyping
- Retail
- Retired
- Robotics
- Sale
- Sensors
- Swag
- Tools
- Widgets
- Wireless

Latest News

AVC 2013 - The Next Chapter
by Robert C. | September 06, 2012 | 59 comments

Hello everyone! Is this really a post about AVC? I know it might seem a bit early to be announcing AVC 2013, but we're making some big changes and wanted to let everyone know in advance what to expect for next year's AVC. It's changed a bit every year, but after some feedback from competitors, spectators, SparkFun employees and yours truly, we've decided to do a complete overhaul for the new competition, scheduled for June 15th of 2013.

Don't worry, we're still going to have autonomous vehicles. That part is staying the same. However, we're expanding the list of 'allowed' vehicles. Basically, if it can move on its own, you can bring it. Big, small, excessive, simplistic, we'll take it all. We're also not going to limit the amount of entries. That's right, we'll take anyone with a vehicle that pays to enter. And for all the aerial folks out there, dust off your quadcopters and helicopters, they'll be allowed next year.



New Products See all »

- RGB LED Strip - 32 LED/m Addressable - 1m \$44.95
- LilyPad LED Purple (5pcs) \$4.95
- Hook-Up Wire - Assortment (Stranded) \$16.95

Featured Products See all »

- SparkFun Projects Case - Clear \$11.95
- LED - RGB Diffused Common Cathode \$1.95
- Hackerspace Passport \$1.95

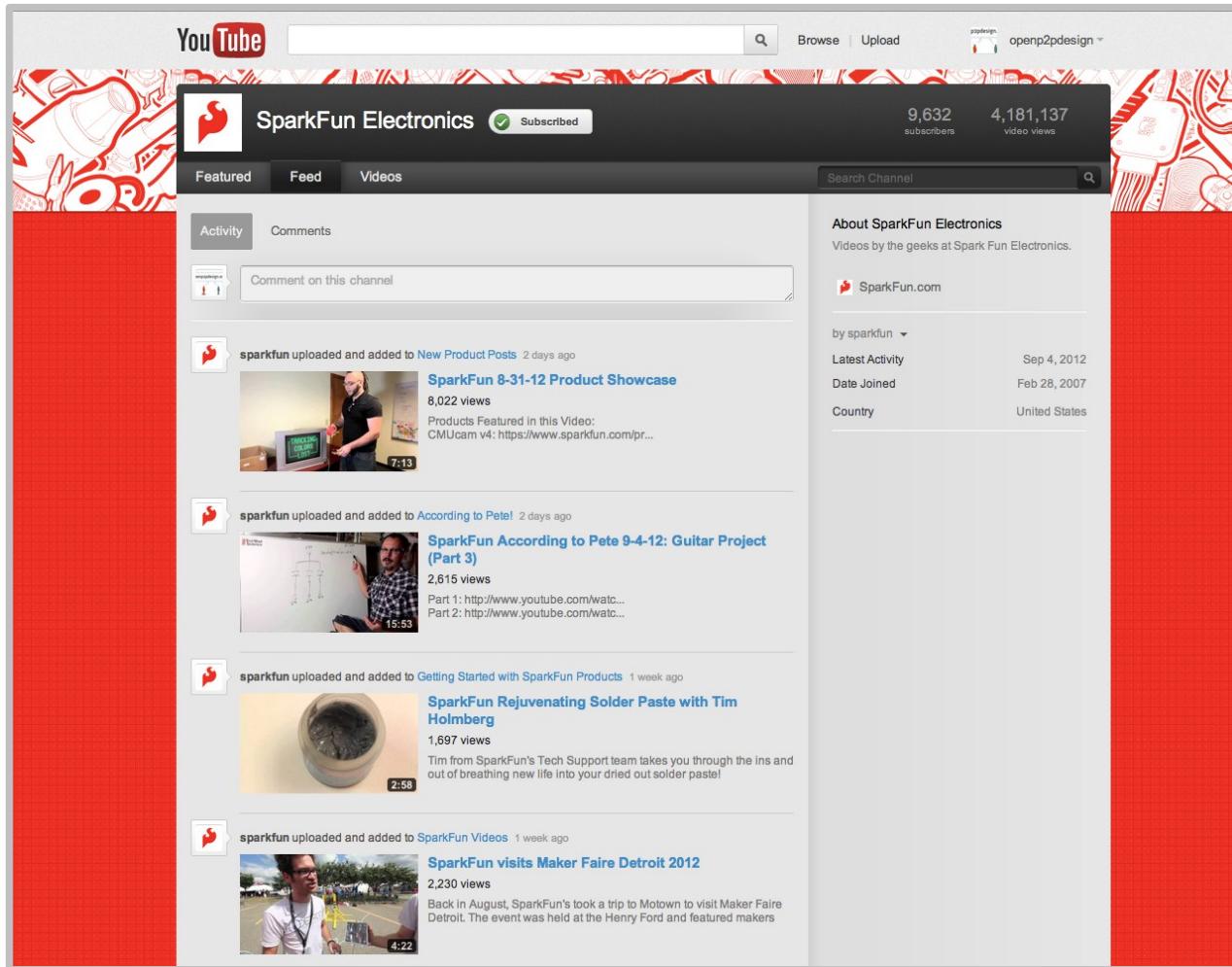
What is BatchPCB? 

Take your invention to the next level with a custom PCB! Check out [BatchPCB](#), a SparkFun service offering inexpensive small runs of your own.

Online store of Open Hardware projects and electronic components.

Source: <http://www.youtube.com/user/adafruit>

Sparkfun (USA)



Online store of Open Hardware projects and electronic components.

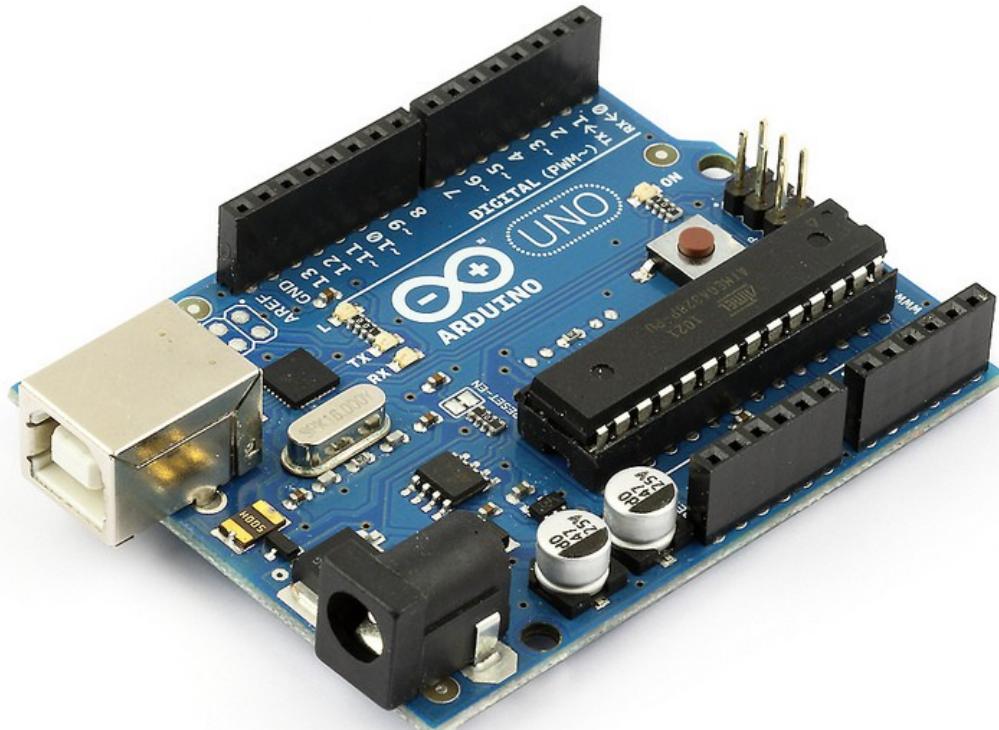
Source: http://www.youtube.com/user/sparkfun?feature=results_main

Sparkfun (USA)



Online store of Open Hardware projects and electronic components.

A physical platform: Arduino (Italy)



An Open single-board microcontroller and IDE designed to make the process of using electronics in multidisciplinary projects more accessible.

Source: <http://arduino.cc>

A physical platform: Arduino (Italy)



Queríamos una herramienta
para nuestros estudiantes,

An Open single-board microcontroller and IDE designed to make the process of using electronics in multidisciplinary projects more accessible.

Source: <http://vimeo.com/18539129>

Crowdfunding: Kickstarter

?! What is Kickstarter? We're the world's largest funding platform for creative projects.

KICKSTARTER Discover great projects Start your project Search projects BLOG HELP SIGN UP LOG IN

like you!

We help people fund creative projects.

Kickstarter is the world's largest funding platform for creative projects. Every week, tens of thousands of amazing people pledge millions of dollars to projects from the worlds of music, film, art, technology, design, food, publishing and other creative fields.

PLAY

START YOUR PROJECT

Find out how to make an awesome Kickstarter project

Each and every Kickstarter project is the independent creation of someone like you!

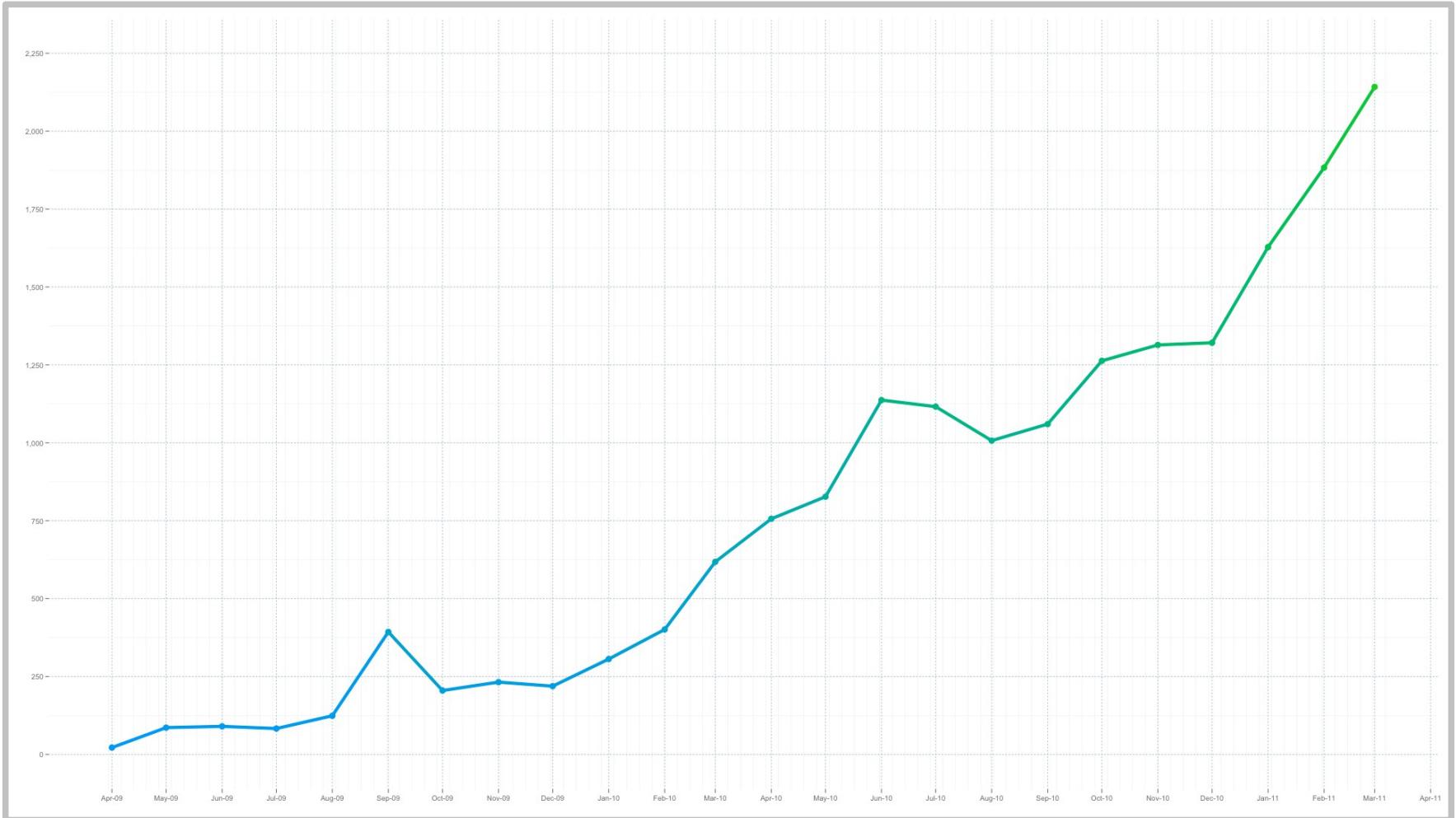
HOW KICKSTARTER WORKS

| | | |
|--|---|--|
| Our Simple Formula Kickstarter is a new form of commerce and patronage. In our world, the best way to inspire support is to offer people great rewards. Everyone loves limited editions, one-of-a-kinds, and fun experiences (parties, screenings, balloon rides!). Spend some time brainstorming your rewards and people will respond. No one needs another coffee mug. | Creative projects only Kickstarter cannot be used to fund for charity projects or causes. While there are countless causes worthy of support, we believe that creativity deserves its own space. See our guidelines for more. | <i>“...an unexpected influence on indie culture, a new model for a D.I.Y. generation.”</i> The New York Times |
| Where does the money come from? Each month millions of people visit | My ideas aren't “big and important.” Is Kickstarter for me? Absolutely! Kickstarter is for creative projects big and small, serious and whimsical, traditional and | |

Kickstarter is the world's largest funding platform for creative projects.

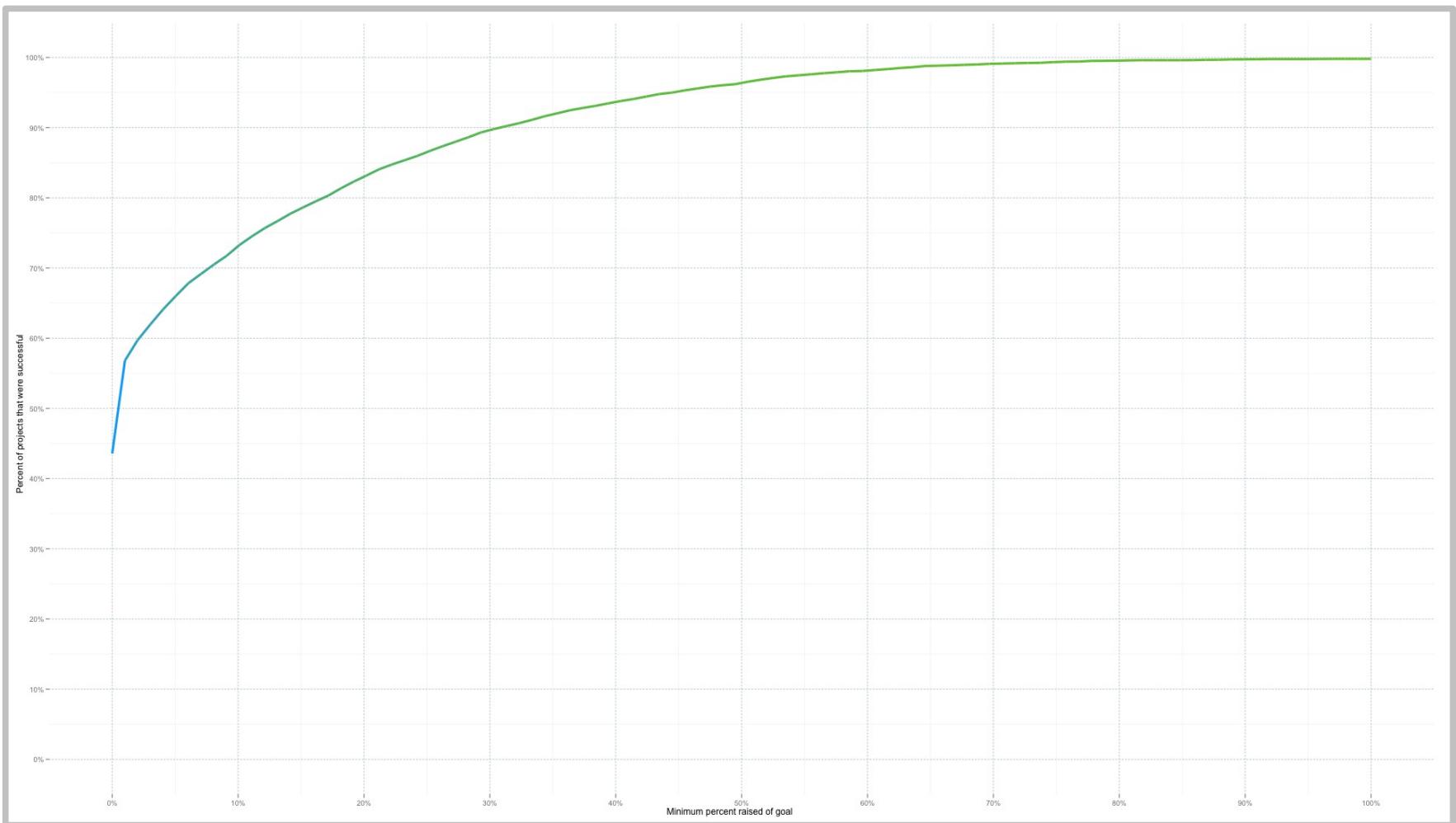
Source: <http://www.kickstarter.com/start>

Crowdfunding: Kickstarter



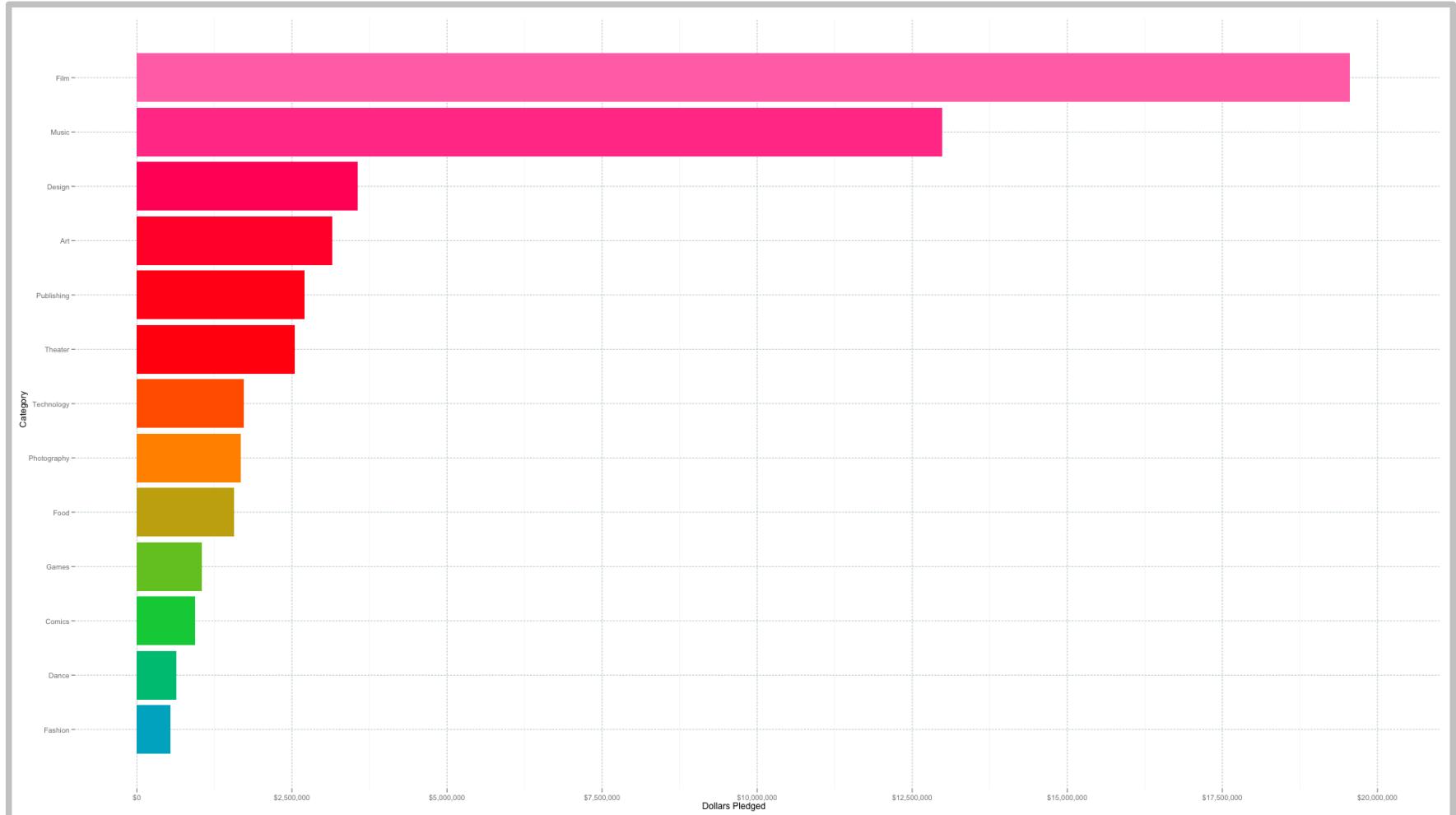
Projects launched: activity between April 28, 2009 - April 27, 2011.

Crowdfunding: Kickstarter



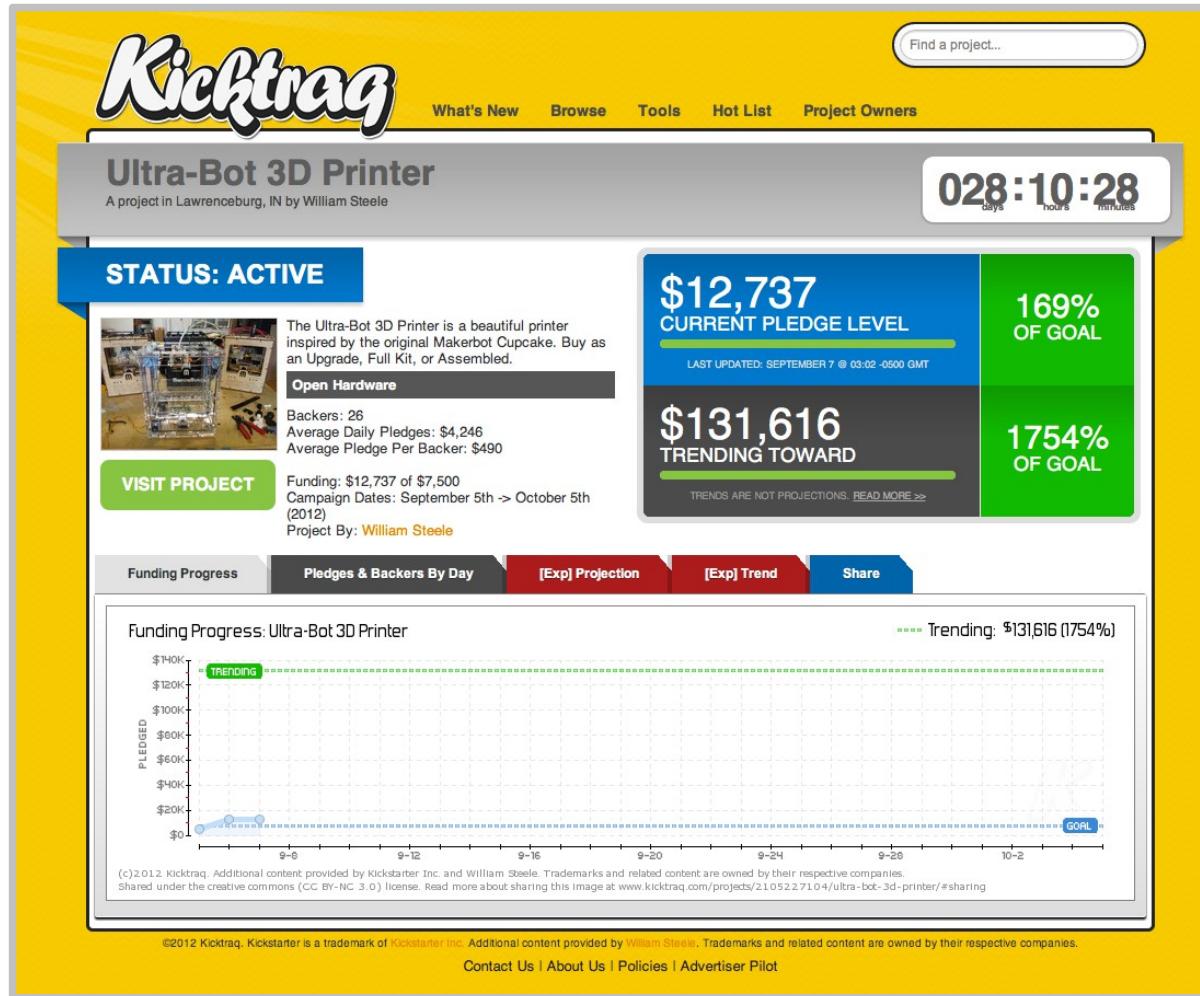
Projects that reach 30% of their funding goal succeed more than 90% of the time.
As the line turns green, the percent of projects that succeed approaches 100%.

Crowdfunding: Kickstarter



Film leads the pack with nearly \$20 million in pledges and Music follows with more than \$13 million. 10 of the 13 categories have seen more than \$1 million.

Kicktraq: analytics for Kickstarter



Kickstarter is the world's largest funding platform for creative projects.

Source: <http://www.kicktraq.com/> <http://www.kicktraq.com/projects/2105227104/ultra-bot-3d-printer/>

Kickstarter: is it rather a Medium?

FAST COMPANY

SUBSCRIBE | NEWSLETTER | SEARCH

MORE THAN **200** DESTINATIONS

Co.DESIGN Co.CREATE Co.EXIST Co.LEAD TECHNOLOGY

Kickstarter: Crowdfunding Platform Or Reality Show?

BY IAN BOGOST | JULY 18, 2012

It's QVC for the web generation, the new Thunderdome, Off Track Betting for ideas addicts. Whatever you call it, Kickstarter's becoming less about funding widgets than pouring gas on creative sparks just to watch them ignite.



On Kickstarter, we sell / fund more an experience than a product!

Lessons from / for Kickstarter

- * **Design for Simplicity:** reduce the functionalities / components
- * **Design for scale:** identify your possible supply chain and plan how to scale the production
- * **Treat it like a job:** it requires full time energy, and probably also a team work
- * **Befriend fellow hackers:** develop the project in hackerspaces or fablabs
- * **Leverage your backers:** use them not just for collecting money!

Some lessons from successful projects... “design for manufacturing”

Lessons from / for Kickstarter

- * **Set a spot-on funding goal – not too big, not too small:** set your Kickstarter goal near \$10,000: 38% of projects met their goals
- * **Don't take too long to raise your money:** The average Kickstarter campaign lasts for 30 days, with 35% of success
- * **Produce a slick video to get attention:** The nearly foolproof way to raise money on Kickstarter is to get the attention of the crowdfunding site's staff (89% success)
- * **Make at least 1,000 Facebook friends:** Founders with 1,000 Facebook friends or more can have a success up to 40%

Some lessons from successful projects...

Crowdfunding: Indiegogo

The world's funding platform. Go fund yourself.

New Alexandrian Library Project For Esoteric ...
\$12,855 raised 4 days left [VIEW CAMPAIGN ▶](#)

BROWSE CAMPAIGNS

LEARN HOW IT WORKS

CREATE A CAMPAIGN

Final Countdown

| Category | Campaign | Status | Funded | Raised | Days Left |
|----------------|---|-------------|----------|---------------|-----------|
| SMALL BUSINESS | Support the Future of Skiing by Mountain Rider's Alliance | 72% funded | \$7,230 | 45 hours left | |
| FILM | Goodbye Promise by Karen Worden & David Brannin | 0% funded | \$2,338 | 5 days left | |
| ENVIRONMENT | #StopMonsanto Film Project by Stop Monsanto | 25% funded | \$37,404 | 8 days left | |
| GAMING | Greebo: Nippo Goblin and Turtles by Greebo miniatures | 186% funded | \$7,426 | 4 days left | |

A crowdfunding platform based in California, it has hosted over 100,000 funding campaigns in areas such as music, charity, small business and film.

Crowdfunding for Open projects: Goteo

The screenshot shows the Goteo website interface. At the top, there's a navigation bar with links for 'ABOUT GOTEZO', 'BLOG', 'FAQ', and 'ENG'. Below the header, a main project card for 'SMART CITIZEN - SENSORES CIUDADANOS' by 'Fab Lab Barcelona' is displayed, showing it has reached 100% of its goal of 19,511 € over 12 days. A large 'OPEN 100% OPEN' button is prominent. Below this, a section titled 'HIGHLIGHTED' features three projects: 'PERIODISMO DE DATOS', 'CIUDAD INTELIGENTE', and 'RECETAS ECO'. Further down, three more projects are shown: 'ESPAÑA EN LLAMAS', 'SMART CITIZEN - SENSORES CIUDADANOS', and 'BIONÉCTAR'. Each project card includes a thumbnail image, a brief description, and a progress bar indicating the amount raised versus the goal.

NEWS Goteo: Crowdfunding con valor añadido. Artículo de Amilio A. Rey See more

GOTEZO DISCOVER PROJECTS CREATE A PROJECT

ABOUT GOTEZO BLOG FAQ ENG

SMART CITIZEN - SENSORES CIUDADANOS
By: Fab Lab Barcelona

COLLECTIVE BENEFITS Boards and sensors kit

obtained 12.778 € OF 19.511 € LASTING 12 DAYS

open hardware

OPEN 100% OPEN

Like 3.1k

HIGHLIGHTED

PERIODISMO DE DATOS

Investigación y visualizaciones opendata para poner sobre el mapa todos los incendios

TECHNOLOGICAL, COMMUNICATIONS

ESPAÑA EN LLAMAS

By: Fundación Ciudadana Cívico

Todos los veranos se repite la misma noticia: hay incendios. Se habla de desastres naturales...

CO-FINANCING 1round

MINIMUM 4.650 € OPTIMUM 9.040 €

REMAINING 14 days

BENEFITS

IN PROGRESS! MINIMUM ACHIEVED

SOCIAL, TECHNOLOGICAL

SMART CITIZEN - SENSORES CIUDADANOS

By: Fab Lab Barcelona

What are the real levels of air pollution around your home or business? and what about noise...

CO-FINANCING 2round

MINIMUM 8.938 € OPTIMUM 19.511 €

REMAINING 12 days

BENEFITS

IN PROGRESS! MINIMUM ACHIEVED

SOCIAL, EDUCATIONAL

BIONÉCTAR

By: evaroca

Reformando un espacio con bioconstrucción para una tetería y restaurante ecológico crudivegano...

CO-FINANCING 2round

MINIMUM 5.697 € OPTIMUM 7.823 €

REMAINING 29 days

BENEFITS

A crowdfunding platform for Open Projects, not just involving money but also time, participation and involvement from users.

Crowdfunding for local business: Smallknot

The screenshot shows the homepage of Smallknot. At the top, there's a navigation bar with the "SMALLKNOT" logo, "SIGN UP / LOGIN", and social media links for Facebook and Google+. Below the header is a large banner featuring a photograph of a wall covered in various bottles and signs, with the text "INVEST IN THE SMALL BUSINESSES THAT YOU LOVE IN YOUR NEIGHBORHOOD." and a "BROWSE LOCAL BUSINESSES" button. Below the banner, there are logos for "The New York Times", "Co.DESIGN", "CNNMoney", "TechCrunch", and "Inc.". A section titled "HOW THIS WORKS" contains four cards: "FIND A CAMPAIGN" (with a magnifying glass icon), "INVEST IN A BUSINESS" (with a coin icon), "RECEIVE A RETURN" (with a pie chart icon), and "SHARE THE LOVE" (with a heart icon). A "LEARN MORE" button is located at the bottom right of this section.

A new trend in crowdfunding: fund local projects and business to strengthen your local community.

Crowdfunding for local business: Brickstarter

**BRICK
STARTER**

BRICKSTARTER

- An Introduction
- Background
- Contact

[Facebook Like 57](#)

[Twitter Tweet 41](#)

An Introduction

Tietoa projektista suomeksi löytyy [tämän linkin](#) takaa. Tulevaisuudessa pyrimme toteuttamaan projektiin kaksikielisenä – kiitos kärsvällisydestä.

Brickstarter is about 21st century social services. We are sketching a system that would enable everyday people, using everyday technology and culture, to articulate and progress sustainable ideas about their community. The Brickstarter project explores the ideas behind these systems, and will provide the blueprints for a platform that can turn possibilities into proposals into projects. By creating its prototype, we aim to stimulate more productive debates about 21st century governance and local decision-making.



This blog captures our evolving knowledge of 21st century decision making as we develop the Brickstarter concept.

A new trend in crowdfunding: fund local projects and business to strengthen your local community. This is a Finnish example under development.

Crowdfunding for Finland: Mesenaatti.me

mesenaatti.me a better tomorrow!

**me
se
naatti
.me**

create,
fund
and
enable!

[suomeksi](#) | in english | på svenska

[ABOUT US](#)
[CREATE or FUND](#)
[TO JOIN](#)
[BECOME INVOLVED](#)
[FOLLOW US](#)
[MORE INFO](#)

Mesenaatti.me is the first open-for-everyone Finnish crowdfunding platform.

You don't have to be rich to make an impact: for only 10€ you can become a patron.

Mesenaatti.me enables you to join in funding projects that matter to you. Support your favorite artist's new project, participate in your neighborhood park renovation or an afternoon club for school children. Fund a movie or a book. You can also invest in an innovation business or participate in starting a new bakery in your village.

Mesenaatti.me also opens up new opportunities for creatives. By presenting your idea for the public you can raise funding from those who wish to see it realized. This simple tool is ideal for funding art, culture, innovation and social projects. It enables totally new kind of activity & economy in which anyone with a great project may raise funding.

Mesenaatti.me is the first open-for-everyone Finnish crowdfunding platform.

Source: <http://mesenaatti.me/en/>

Sourceforge: coding for the organization

The screenshot shows the Sourceforge homepage. At the top, there's a navigation bar with links for 'Search', 'Browse', 'Blog', 'Help', 'Log In', and 'Join'. Below the navigation is a banner with the text 'Find, Create, and Publish Open Source software for free' and a search bar. A stats bar at the bottom of the banner shows 'TODAY: 4,077,477 DOWNLOADS', '3,345 CODE COMMITS', '6,206 FORUM POSTS', '463 BUGS TRACKED', and a 'MORE DETAILS' link. Below the banner, there are two main advertisements: 'Go Parallel' (Translating Multicore Power into Application Performance) and 'Earn More on Android' (50,000 Developers | \$10+ CPM's | 95%+ Fill Rates). On the left side, there's a sidebar with categories like 'Audio & Video', 'Business & Enterprise', 'Communications', 'Development', 'Home & Education', 'Games', 'Graphics', 'Science & Engineering', 'Security & Utilities', and 'System Administration'. The main content area features a 'Project of the Month' section with five projects listed: PeaZip, StarUML, AkelPad, FreeCAD, and Lazarus. Each project has a thumbnail icon, a name, a brief description, and a 'Download' button.

The most popular platform for open source projects with 3.4 million developers that create over 324,000 projects: coding for an organization.

GitHub: coding for the social networks

The screenshot shows the GitHub homepage. At the top, it displays "2,110,447 people hosting over 3,683,591 repositories". Below this, there's a search bar with the placeholder "Find any repository" and a list of popular companies using GitHub: Facebook, Twitter, Microsoft, VMware, Redhat, LinkedIn, and Mozilla. The main content area is divided into two sections: "git /'git/" and "git·hub /'git,həb/'. The "git" section describes Git as an extremely fast, efficient, distributed version control system ideal for collaborative development. The "git·hub" section describes GitHub as the best way to collaborate with others, mentioning forks, pull requests, and managing public and private repositories. A central call-to-action button says "Plans, Pricing and Signup" with the subtext "Unlimited public repositories are free!". Below this, a horizontal line of text lists various features: "Free public repositories, collaborator management, issue tracking, wikis, downloads, code review, graphs and much more...". The bottom section is divided into four categories: "Team management", "Code review", "Reliable code hosting", and "Open source collaboration". Each category has a brief description and a "More about" link.

github

Signup and Pricing Explore GitHub Features Blog Sign in

2,110,447 people hosting over 3,683,591 repositories

jQuery, reddit, Sparkle, curl, Ruby on Rails, node.js, ClickToFlash, Erlang/OTP, CakePHP, Redis, and many more

Find any repository

facebook. Microsoft redhat. mozilla

git /'git/

Git is an extremely fast, efficient, distributed version control system ideal for the collaborative development of software.

git·hub /'git,həb/

GitHub is the best way to collaborate with others. Fork, send pull requests and manage all your **public** and **private** git repositories.

Plans, Pricing and Signup
Unlimited public repositories are free!

Free public repositories, collaborator management, issue tracking, wikis, downloads, code review, graphs and much more...

Team management
30 seconds to give people access to code. No SSH key required. Activity feeds keep you updated on progress.
[More about collaboration](#)

Code review
Comment on changes, track issues, compare branches, send pull requests and merge forks.
[More about code review](#)

Reliable code hosting
We spend all day and night making sure your repositories are **secure**, **backed up** and **always available**.
[More about code hosting](#)

Open source collaboration
Participate in the most important open source community in the world today—online or at one of our meetups.
[More about our community](#)

The most popular platform for code development, and especially open source: a personal open source place + social network.

GitHub as a platform: Gittip

The screenshot shows the Gittip homepage. At the top left is the Gittip logo with a heart icon. To its right is a "Sign in using GitHub" button. Below the logo is a sub-header "Personal Funding". A banner below the header reads "Set up recurring gift tips to people who make the world better. [Learn more ...](#)". The main content area starts with a section titled "Tip someone!" which includes a search bar for GitHub usernames and a "Go" button. Below this is a "Leaderboard" section with a link to "Unclaimed". The page is divided into two columns: "Top Givers" and "Top Receivers", each listing 10 users with their tip amounts. A note at the bottom states: "Gittip happens every Thursday. The amounts above are what the Gittip community is willing to give as a weekly gift to each person, but only if the person accepts it. Gittip is **opt-in**. We never collect money on a person's behalf until that person opts in by claiming their account."

| Rank | Amount | User |
|------|----------|-------------------------------|
| 1. | \$ 83.00 | anonymous |
| 2. | \$ 68.41 | whit537 |
| 3. | \$ 68.00 | martindale |
| 4. | \$ 67.00 | bruceadams |
| 5. | \$ 66.00 | campadrenalin |
| 6. | \$ 50.00 | mtamizi |
| 7. | \$ 45.00 | joetysong |
| 8. | \$ 36.00 | workforpie |
| 9. | \$ 33.25 | wraithan |
| 10. | \$ 25.00 | anonymous |

| Rank | Amount | User |
|------|-----------|------------------------------|
| 1. | \$ 169.80 | whit537 |
| 2. | \$ 71.39 | jnoller |
| 3. | \$ 58.63 | alex |
| 4. | \$ 56.79 | mitsuhiko |
| 5. | \$ 47.87 | kennethreitz |
| 6. | \$ 46.48 | steveklabnik |
| 7. | \$ 37.50 | zzzeek |
| 8. | \$ 31.74 | visionmedia |
| 9. | \$ 30.32 | antirez |
| 10. | \$ 29.57 | jezdez |

A web service built on top of GitHub, it enables users to thank / give money to their favourite developers / projects.

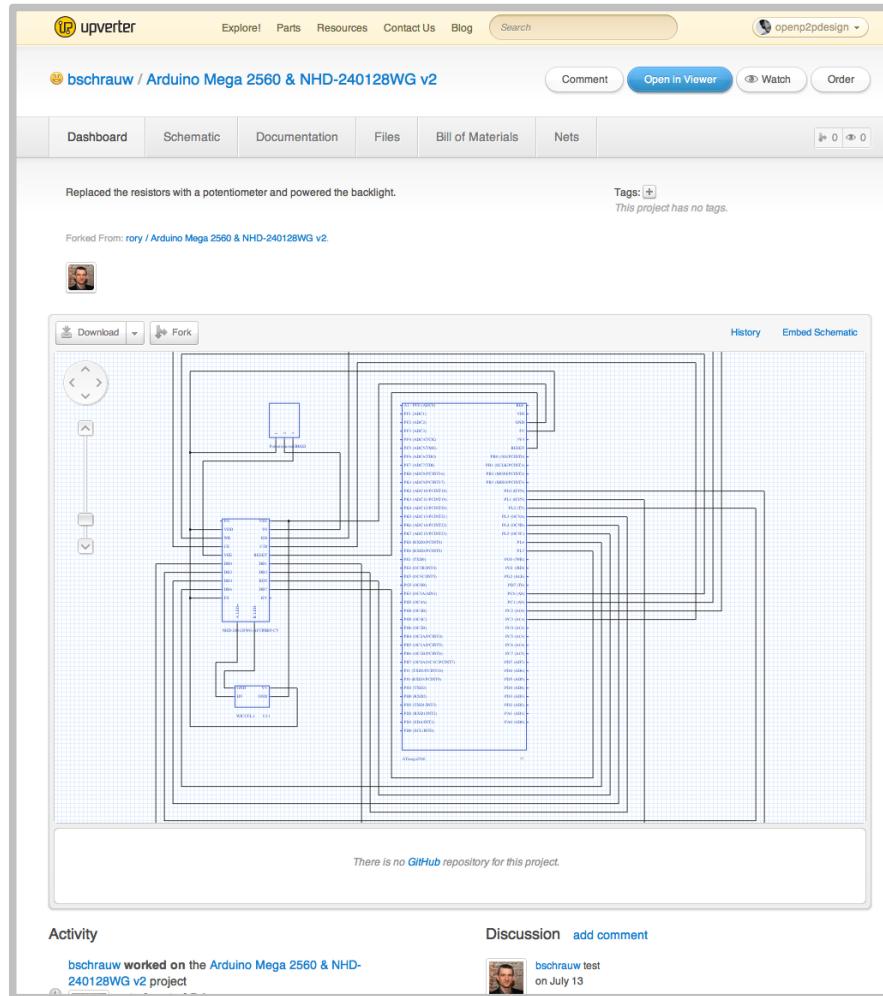
Source: <https://www.gittip.com/>

Bitbucket

The screenshot shows the Bitbucket homepage with a blue header bar. On the left is the Atlassian Bitbucket logo. On the right are links for 'Features', 'Pricing', 'Log in', and 'Sign up'. Below the header is a large white text area with the heading 'Unlimited private code repositories' and a subtext 'FREE FOR 5 USERS + GIT OR MERCURIAL + LIGHTWEIGHT CODE REVIEW + MAC AND WINDOWS CLIENT'. Below this is a sign-up form with fields for 'Username' containing 'openp2pdesign' and a password field containing '.....'. A blue button labeled 'Sign up for free' is at the bottom of the form. At the very bottom of the page is a white footer bar with a link 'Free Git tutorials'.

Bitbucket is a web-based hosting service for projects that use either the Mercurial or Git revision control systems.

Upverter: design hardware, with GitHub



Upverter is a design and collaboration platform for students, engineers, designers, makers and hackers for making hardware online.

Source: <http://upverter.com>



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03.

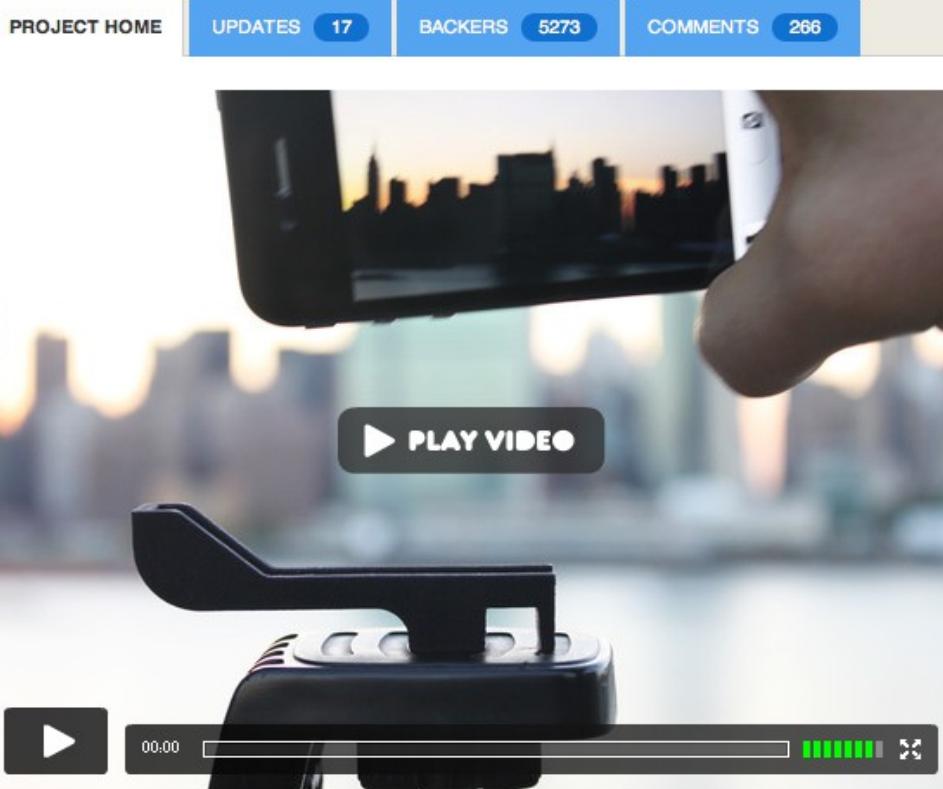
The business of Digital Fabrication Open Design and DIY

And designers can be entrepreneurs

Glif - iPhone 4 Tripod Mount & Stand

Project by Dan Provost & Tom Gerhardt • [send message](#)

1



New platforms for crowdsourcing allow you to fund your projects, and digital fabrication and FabLabs could be useful for manufacturing them.

Source: <http://www.kickstarter.com/projects/danprovost/glif-iphone-4-tripod-mount-and-stand>

And designers can be entrepreneurs

TikTok+LunaTik Multi-Touch Watch Kits

Project by Scott Wilson • [send message](#)

PROJECT HOME UPDATES 39 BACKERS 13512 COMMENTS 4140



13,512
BACKERS
\$941,718
PLEDGED OF \$15,000 GOAL
0
SECONDS TO GO

FUNDING SUCCESSFUL
This project successfully raised its funding goal on ✓ December 16.

New platforms for crowdsourcing allow you to fund your projects, and digital fabrication and FabLabs could be useful for manufacturing them.

Source: <http://www.kickstarter.com/projects/1104350651/tiktok-lunatik-multi-touch-watch-kits>

But “Open” alone is not enough

100K Stray Toasted Pull Toys

Project by C. Sven Johnson • [send message](#)

PROJECT HOME UPDATES 2 BACKERS 13 COMMENTS 2



100K Stray Toasted Pull Toys

13

BACKERS

\$765

PLEDGED OF \$7,500 GOAL

0

SECONDS TO GO

FUNDING UNSUCCESSFUL

This project reached the deadline without achieving its funding goal on November 1, 2009.



PLEDGE \$5 OR MORE

Open Source is a good strategy, but your project needs to be meaningful for enough people!

Source: <http://www.kickstarter.com/projects/1833785894/100k-stray-toastched-pull-toys>

You need to interact with the market

threadless Tees Shop ▾ Participate ▾ Community ▾ Info ▾

\$10,000!
Submit your idea for a chance at 10K! ▶ Score 300 designs fo LEARN MORE ▾

Good Shirts Shop Guys | Shop Girly



\$300,000

Cargo Flight for UNICEF
by Justin & Christine Gignac



\$75,000

100 Metric Tons Of Corn Soy Blend for UNICEF
by Justin & Christine Gignac



\$3,064.82

Motorbike for UNICEF
by Justin & Christine Gignac



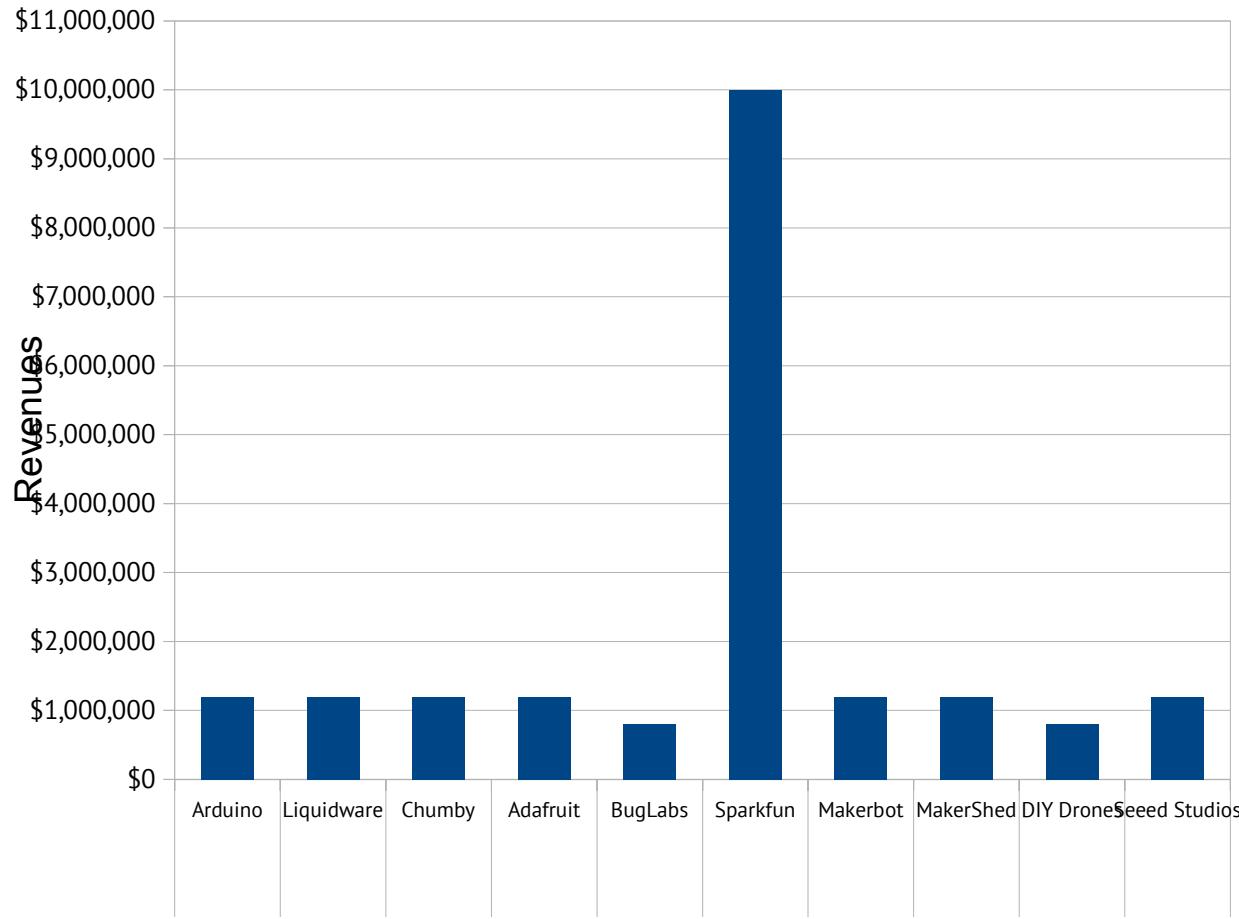
\$1,939.96

Emergency Tent for UNICEF
by Justin & Christine Gignac

... and this is exactly what new services and platforms enable!

Source: <http://www.threadless.com/>

Open Hardware: a rising market



2009: 13 companies above \$ 1 m. (totale: \$ 50 m.). \$ 1 billion by 2015.

Source: <http://blog.makezine.com/archive/2010/05/million-dollar-baby-businesses-de.html>

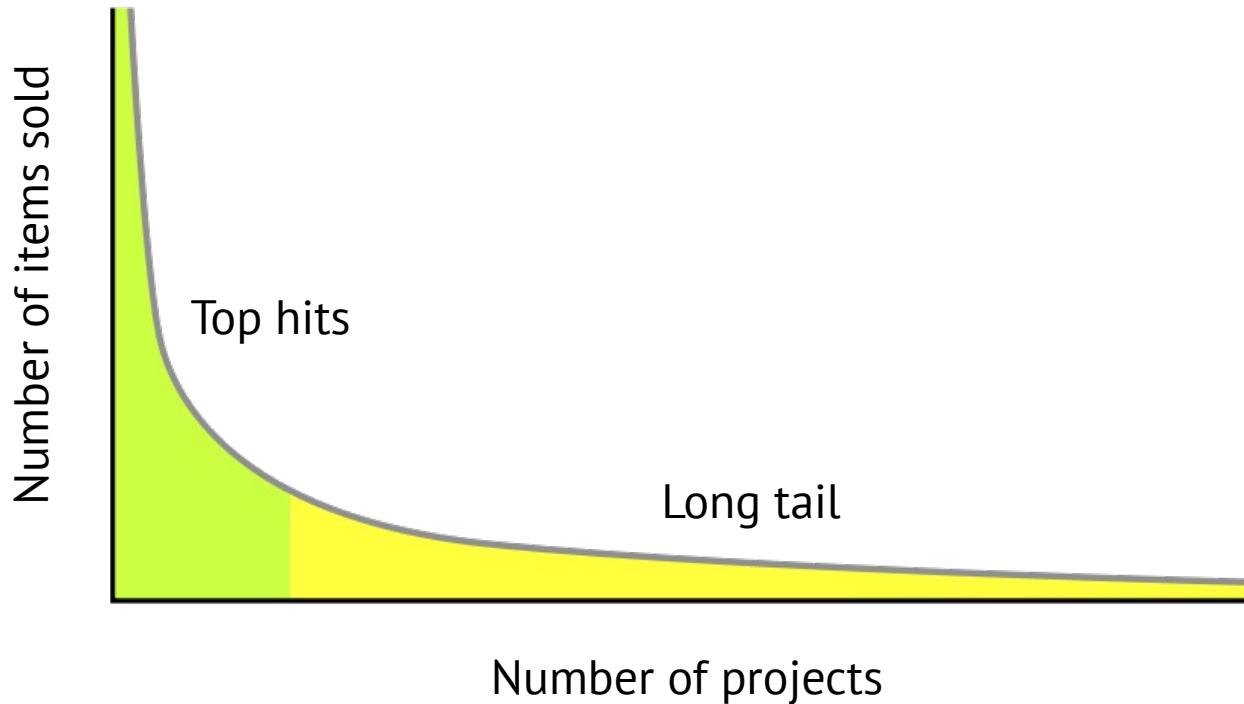
SparkFun



“In 2010, SparkFun had revenues of about \$18.4MM. As of April of 2011, we have around 120 employees, up from 87 a year ago.”

“We hope to grow by 50% this year (2011) to around \$28MM in sales. We expect to be in the 30-50MM range in the next 3-5.”

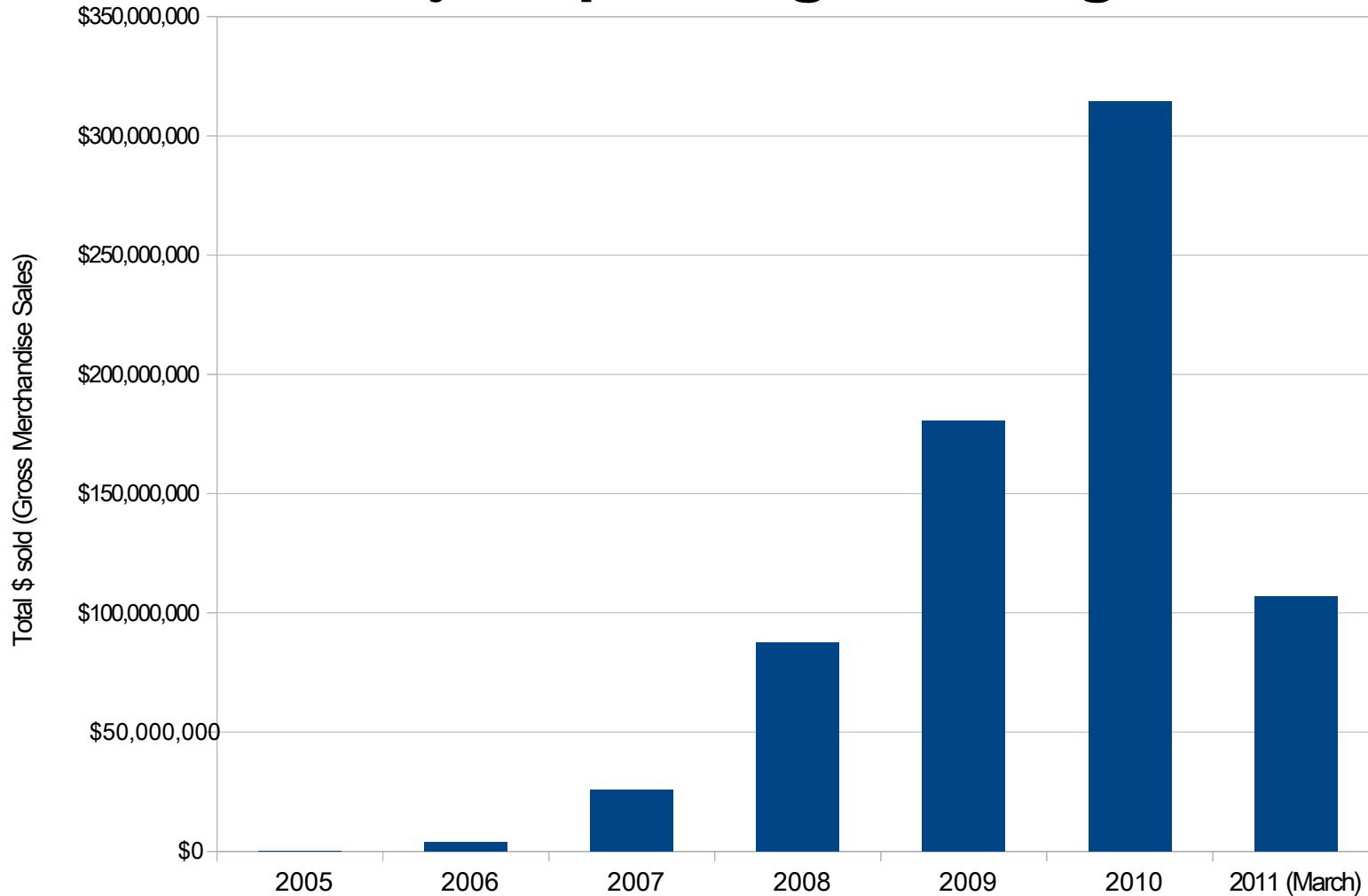
A long tail of users / projects...



Another big player, a marketplace for your DIY / Crafts projects (exploiting the long tail effect).

Source: http://en.wikipedia.org/wiki/Power_law

Etsy: exploiting the long tail



Users: +8 milioni / Active shops: +800,000
Products: 8.5 millions.

Source: <http://www.etsy.com/press/kit/>

Makers can create a startup: Makerbot



Started from an hackerspace (and from
RepRap, even financially).

Source: <http://www.flickr.com/photos/kellycdb/6168020183/>
<http://commons.wikimedia.org/wiki/Category:Wood>

The market of 3D printing

3D printing market has grown by 24.1% in 2011.
Forecasts: \$3.1 billions (2016) \$5.2 billions (2020).
(Wohlers Associates, 2011)



Sustainable business
--> \$10 Millions from VC



Not yet sustainable
--> \$5 Millions from VC

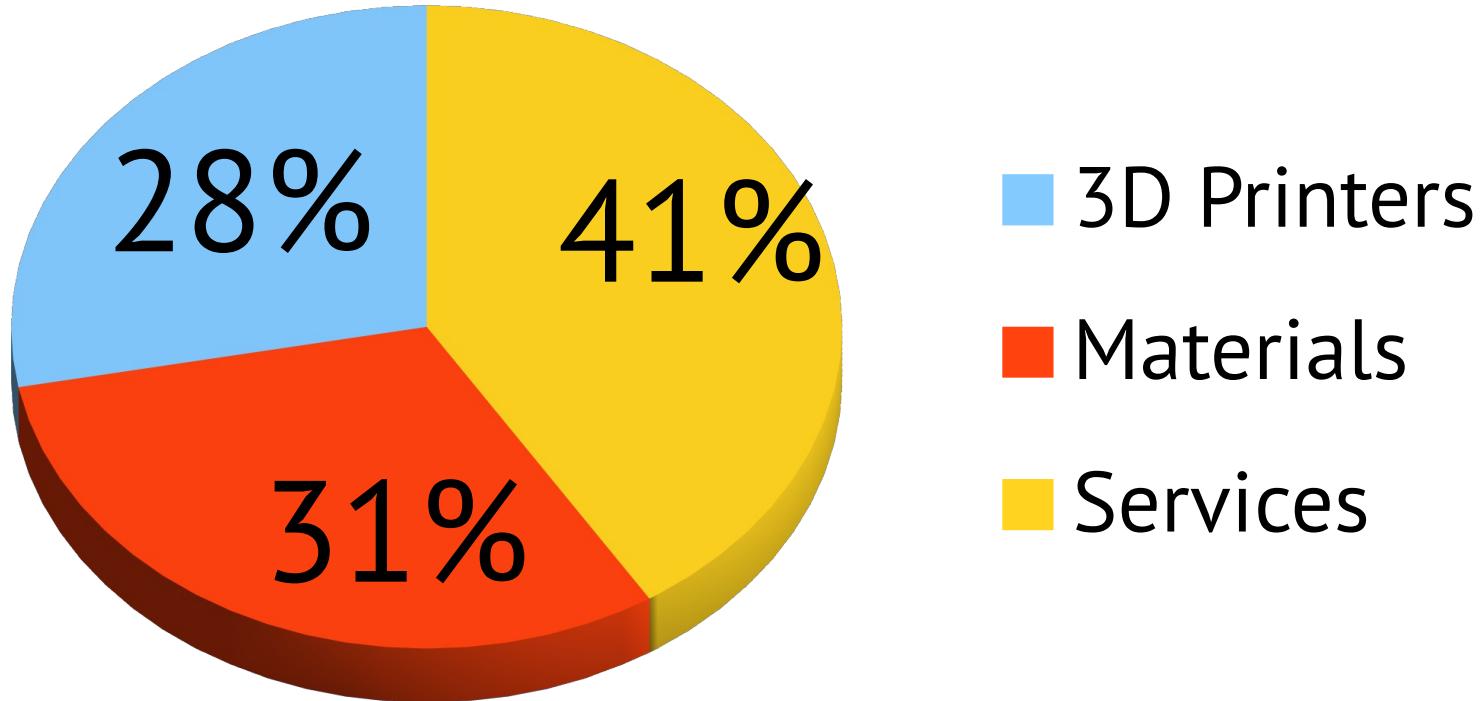
Big corporations: 3D Systems

The screenshot shows the homepage of 3D Systems' website. At the top, there's a navigation bar with links to About Us, Newsroom, Support, Investor Relations, Where to Buy, Contact, and a phone number (803.326.3900). There's also a language selection for English and a Google Custom Search bar. Below the header, a main banner features a hand holding a small electronic device (a 3D printer) and the word "Liberate". The banner text reads: "Innovation that empowers ... complete freedom of design" and includes a "Read more »" button. To the right of the banner is a sidebar with sections for Announcements, News, and Connect With Us. The Announcements section highlights "Z Corporation Acquisition Completed!" with a subtext about complete 3D content-to-print solutions and a link to learn more. The News section has a heading "News" and the Connect With Us section has a heading "Connect With Us". Below the main banner, there are six smaller images representing different industries: Transportation (a car), Energy (wind turbines), Consumer Products (a smartphone), Recreation (two people on bicycles), Healthcare (a medical professional), and Education (two students at a computer). At the bottom of the page, there are links to Home, Contact, Sales Terms, Terms And Conditions, Privacy Statement, and Investor Relations. Copyright information states "Copyright ©1997-2011 3D Systems, Inc. All rights reserved." On the far right, there are social media icons for various platforms like RSS, Facebook, YouTube, Twitter, LinkedIn, and Google+.

Not only hackers or startups are in this field,
but even big and old companies.

Source: <http://www.3dsystems.com/>

Digital Fabrication: not just machines

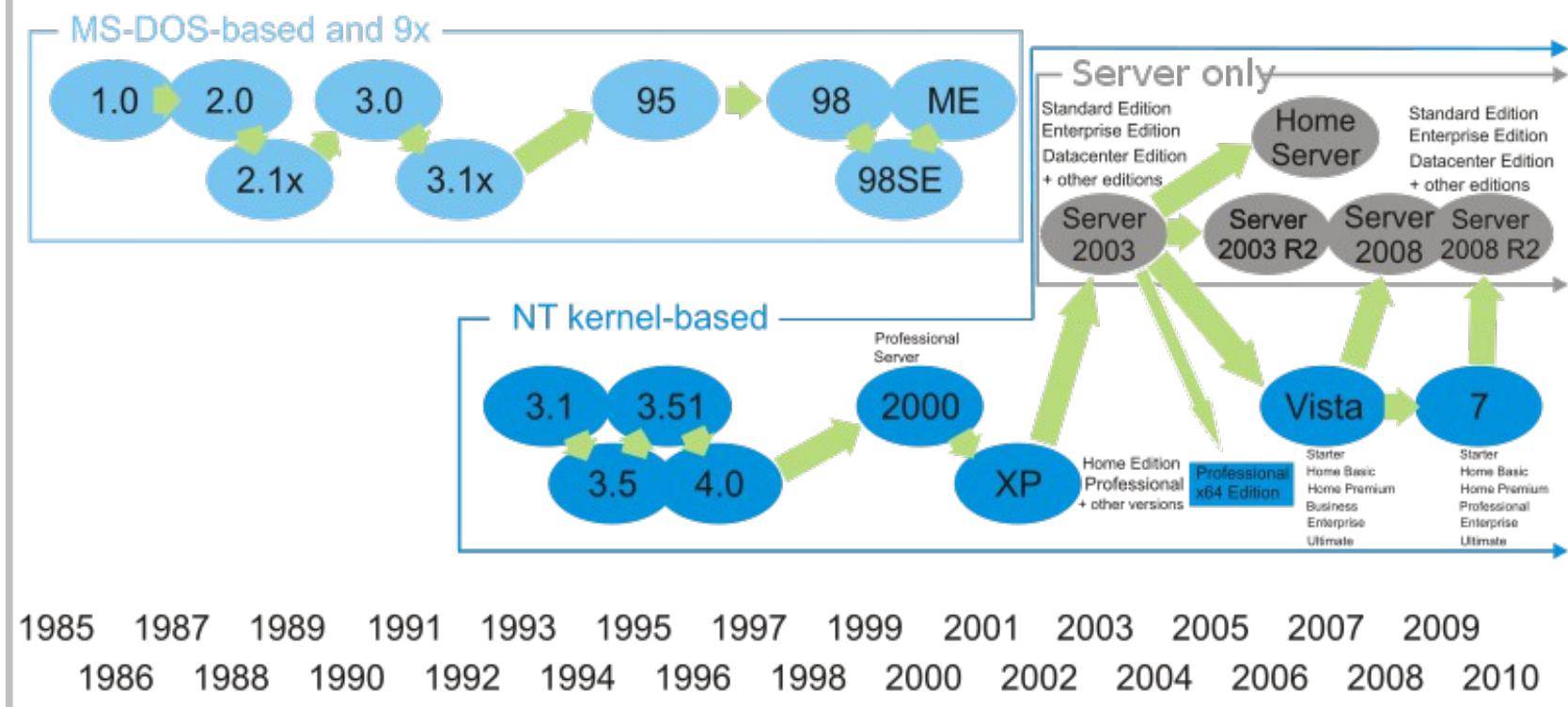


There are many ways for making money with
digital fabrication...

Source: <http://investor.3dsystems.com/>

A typical closed innovation system

Microsoft Windows family tree



This is the typical evolution of a closed company...

Source: http://en.wikipedia.org/wiki/Timeline_of_Microsoft_Windows

1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007

Linux distro timeline

Version 7.2 by NPU (nonplusx@gmail.com)

For the latest version, visit kde-files.org

Feel free to modify and spread. Mail me for updates, corrections and source flw/xcf files

Based on "Línea del tiempo Distribuciones Linux" by A. Sandoval (microteknologias.cl)
Additional info: distrowatch.com/wikipedia.org

An open innovation system



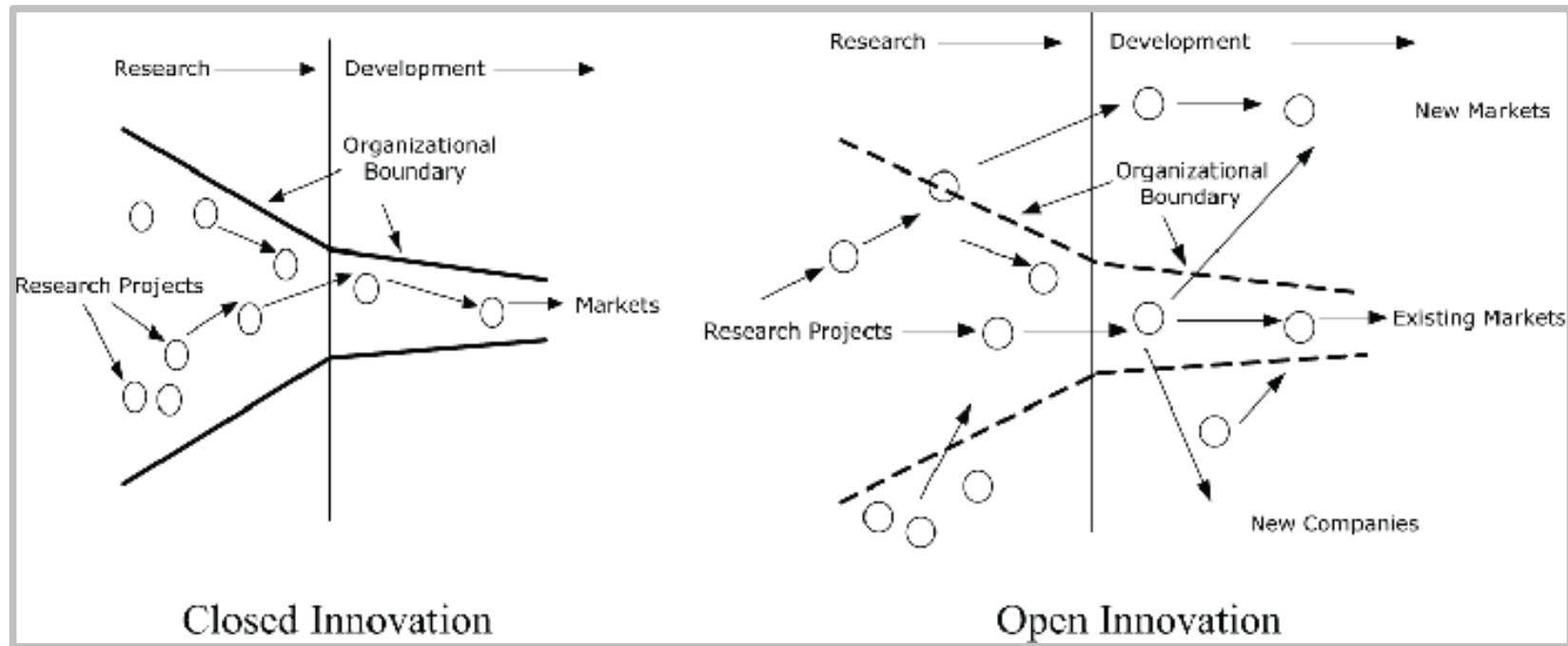
GNU/Linux

And newer pictures are too big for a slide :-)

1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007

Source: <http://futurist.se/gldt/>

Open Innovation vs. Closed Innovation



Firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology.

Open Innovation vs. Open Source

“Open innovation is sometimes conflated with open source methodologies for software development. There are some concepts that are shared between the two, such as the idea of greater external sources of information to create value. However, open innovation explicitly incorporates the business model as the source of both value creation and value capture. This latter role of the business model enables the organization to sustain its position in the industry value chain over time. While open source shares the focus on value creation throughout an industry value chain, its proponents usually deny or downplay the importance of value capture.”

Source: Chesbrough, H., 2011. Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era 1st ed., Jossey-Bass.

Look for what is becoming a *commodity*

A **commodity** is a good for which there is demand, but which is supplied without qualitative differentiation across a market. [...] the market treats it as equivalent or nearly so no matter who produces it.

Source: <http://en.wikipedia.org/wiki/Commodity>

Commoditization (also called commodification) occurs as a goods or services market loses differentiation across its supply base, often by the diffusion of the intellectual capital necessary to acquire or produce it efficiently. [...] a unique, branded product into a market based on undifferentiated products.

Source: <http://en.wikipedia.org/wiki/Commoditization>

Hardware and Software, becoming commodities

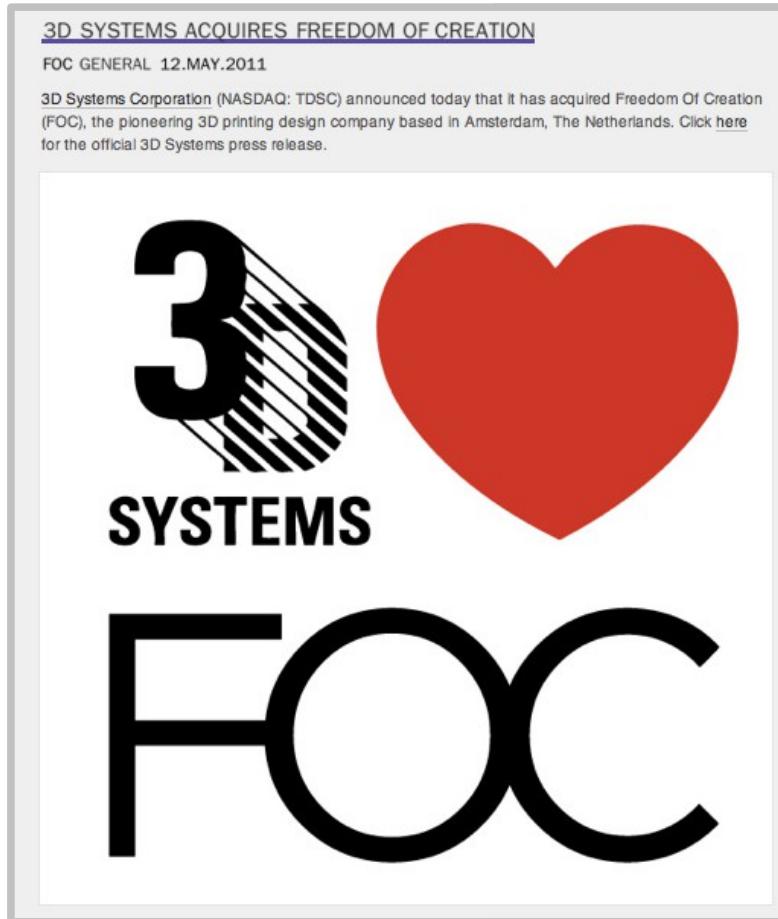
- * ('50s-'70s) **Hardware** is the product, software is for free:
mainframes
 - > Hacker ethic of sharing information
 - * ('80s-'90s) Hardware is commodity, **software** is the product and it's proprietary: personal computers
 - > Microsoft emerges
 - * ('00s-...) Even software is a commodity, so let's **sell services and get data from users**: open source, web 2.0, services around software, software as service, the cloud
 - > web 2.0 emerges
-

Manufacturing and Design, becoming commodities

- * ('90s-'00s) Manufacturing becomes a commodity and slowly disappears in the West (thanks to China)
- * ('10s...) Now it's even more a commodity (thanks to Fabbing)
- * ('00s...) Professional design is slowly becoming a commodity (thanks to Fast Fashion, Ikea, design schools bubble, Shanzai)

--> Where is **value now**, in Design and Manufacturing?

Fabbing + designers = \$\$\$ + Open Design



Big corporations love shopping Design companies for selling their content with 3D printers.

Source: <http://www.freedomofcreation.com/home/3d-systems-acquires-freedom-of-creation>

But even makers may be giving content away...

a MakerBot Industries website

THINGIVERSE

THINGS TOOLS TAGS BLOG

Welcome, friend.
Please [REGISTER](#) or [LOGIN](#) to rock.

Thingiverse is a place to share digital designs that can be made into real, physical objects. Let's create a better universe, together! | [UPLOAD A THING](#)

FEATURED



Botmobile Dune Buggy

Created by  makerbot

Created on Nov 24, 2011

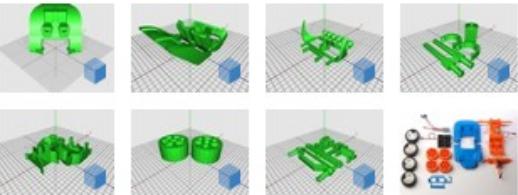
Featured on Nov 25, 2011

Order the Botmobile Kit from the MakerBot Store at store.makerbot.com/makerbot-botmobile.html and you'll have all the parts you need to get your printed Dune Buggy going in no time!

The wind in your hair... The sun on your face... The sand in your teeth... Everyone loves a day out cruising the dunes in their trusty Botmobile Dune Buggy!

The Botmobile Dune Buggy is an open source 3d printed remote control car that you can build at home. Using the Botmobile chassis the Dune Buggy was built from the ground up as a completely new type of remote control car

See video of the Botmobile Dune Buggy in action:
www.youtube.com/watch?v=JLjXWzTzT7E



The same strategy of giving content to the users of the 3D printers has been adopted by Makerbot.

Source: <http://www.thingiverse.com/>

Fabbing + designers = \$\$\$ + Open Design

The screenshot shows the Alibre website homepage. At the top, there's a navigation bar with links for "3D Software", "3D Printers", "Downloads", "Training & Support", "Successes", and "How to Buy". The main content area features a large grid of images demonstrating various 3D CAD models and applications. A prominent banner at the bottom left reads "3D CAD Software" and "Comprehensive 3D & 2D Design, Simulation, Rendering, and more...". To the right of the banner, there are several callout boxes with text and images:

- 3D & 2D CAD Software**: Professional, inexpensive CAD software for businesses.
- 3D Printers**: Personal and professional 3D printers starting at \$1699.
- CAM Software**: Completely integrated into our CAD software.
- User Gallery & Community**: Come see what our customers around the world are making.
- CAD for Hobbyists**: Powerful and Inexpensive and perfect for home users.

But even anybody could become a user, so let's buy a design software and offer it to them.

Source: <http://blog.3dsystems.com/2011/05/3d-systems-partners-with-alibre.html>
<http://www.alibre.com/>

And users innovate (even in non open way)



Not developed by a company...

Source: <http://en.wikipedia.org/wiki/Skateboard>

Users innovate – a lot!

“We find this previously unmeasured type of household sector innovation to be quite large. 6.2% of UK consumers - 2.9 million individuals have engaged in consumer product innovation during the prior 3 years. In aggregate, consumers’ annual product development expenditures are 3 times larger than the annual consumer product R&D expenditures of all firms in the UK combined.”

Eric A. Von Hippel, Jeroen De Jong, Steven Flowers

Comparing Business and Household Sector Innovation in Consumer Products: Findings from a Representative Study in the UK

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1683503



Aalto University
Media Factory

03.

Business models for Open projects

Business models of Open Source (software)

Non-monetary incentives:

- * problem solving
- * ethical questions
- * education + learning
- * reputation --> social interactions + jobs

--> it's not just about money! Also a **gift economy**

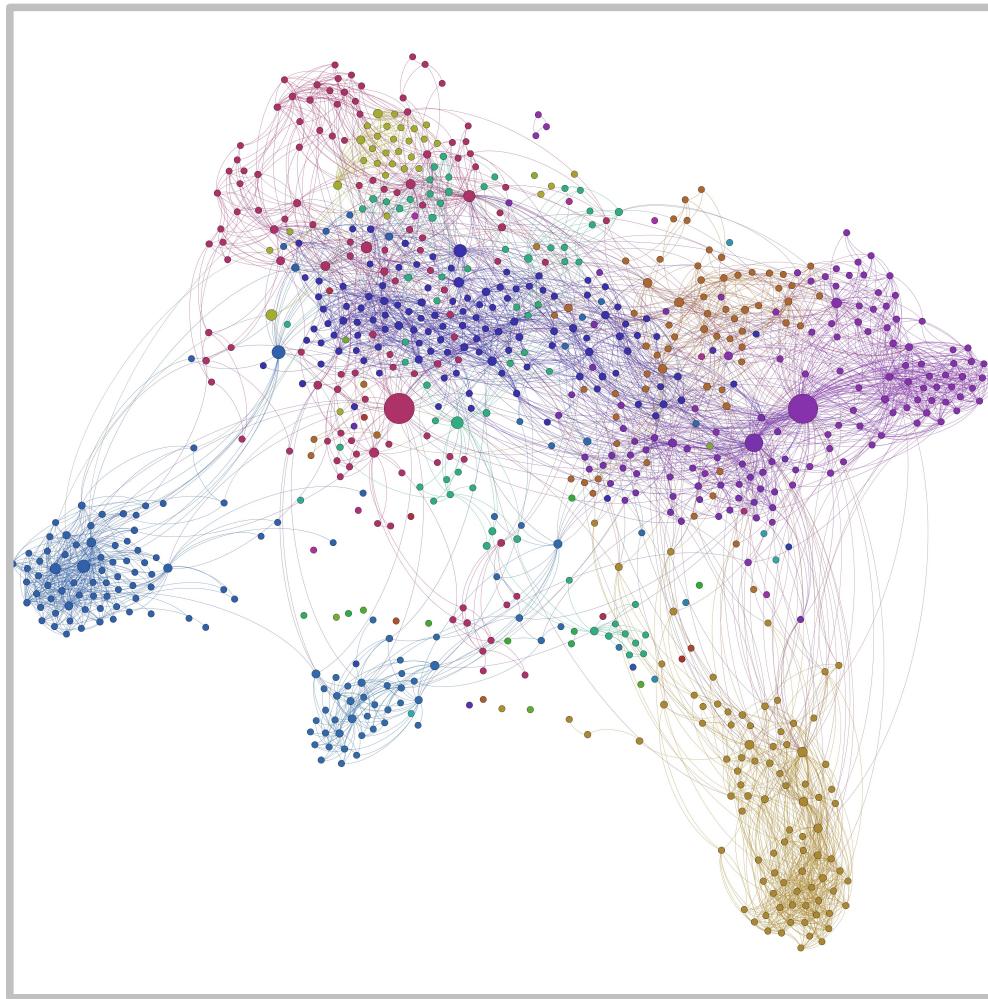
A gift economy



A mode of exchange where valuable goods and services are regularly given without any explicit agreement for immediate or future rewards.

Source: http://en.wikipedia.org/wiki/Gift_economy

A gift economy: focus on social networks



Flows of good and services are important only for maintaining and improving social networks in the community.

Source: http://en.wikipedia.org/wiki/Gift_economy

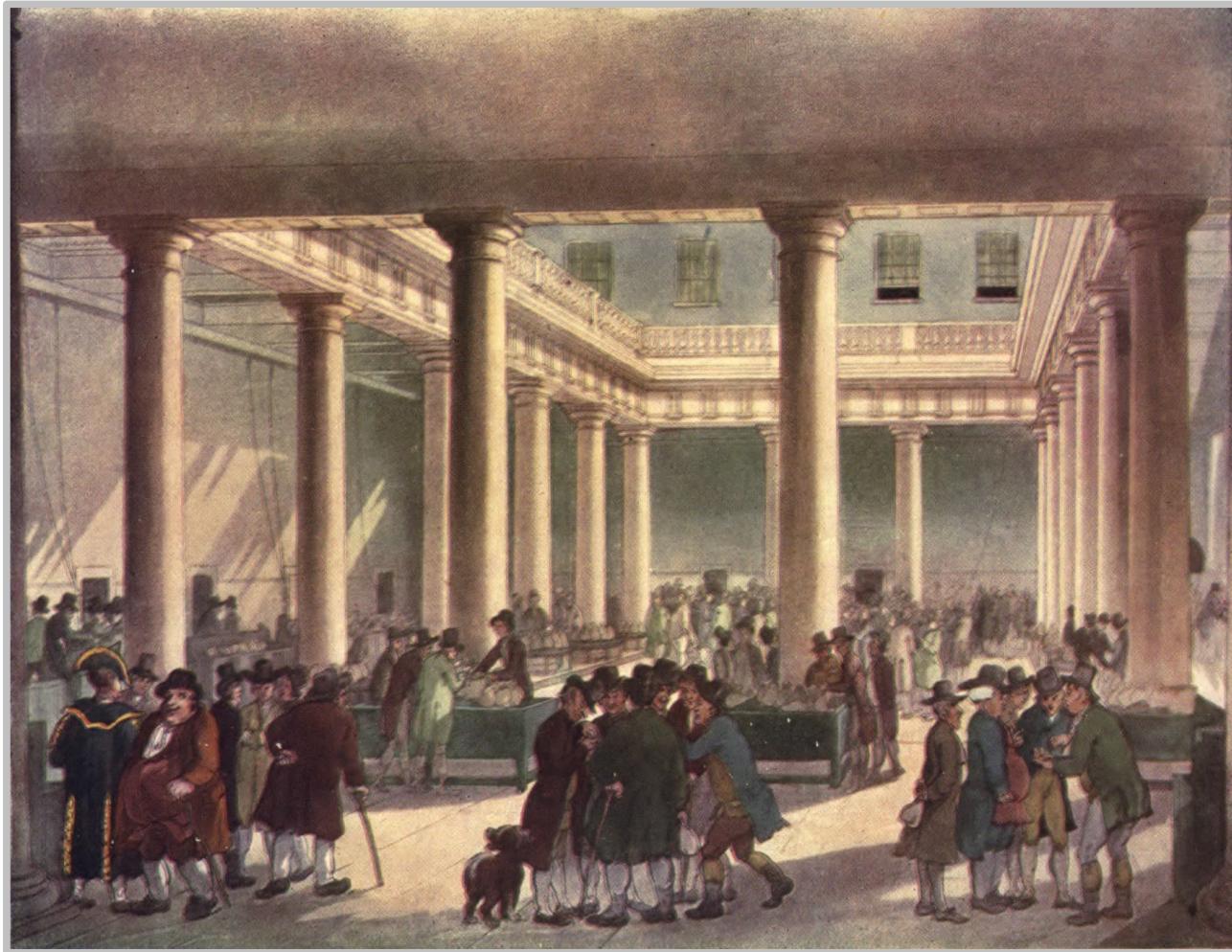
Business models of Open Source (software)

Monetary incentives:

- * selling software (as open or even with dual licensing)
- * offering services (customisation, support, ...)
- * paid developer work
- * donation
- * software as service (freemium, ...)
- * embedding software into hardware

--> ... it's not just only volunteer work! Also a **market economy**

A market economy



Decisions regarding investment, production and distribution are based on supply and demand and the prices are determined in a free price system.

Source: http://en.wikipedia.org/wiki/Market_economy http://en.wikipedia.org/wiki/Market_economy

A market economy: barter



A method of exchange by which goods or services are directly exchanged for other goods or services without using a medium of exchange, such as money.

Source: <http://en.wikipedia.org/wiki/Barter>

A market economy: money as medium



The main functions of money are distinguished as: a medium of exchange; a unit of account; a store of value.

Source: <http://commons.wikimedia.org/wiki/Category:Coins>

Business models of Open Source (software)

Red Hat

first open source company expected to break through the \$1bn mark in 2011.

Source: http://www.channelregister.co.uk/2011/03/24/redhat_q4_f2011_numbers/

Cost of developing Linux

The Linux Foundation (LF) (2008): \$10.8 billion to build the Linux community distribution Fedora 9 in today's dollars with today's software development costs.

\$1.4 billion to develop the Linux kernel alone.

Source: <http://www.linuxfoundation.org/sites/main/files/publications/estimatinglinux.html>

The levels of openness in Open Hardware

1. **Closed:** any hardware for which the creator of the hardware will not release any information.
2. **Open Interface:** all the documentation on how to make a piece of hardware perform the function for which it is designed is available (minimum level of openness).
3. **Open Design:** in which enough detailed documentation is provided that a functionally compatible device could be created by a third party.
4. **Open Implementation:** the complete bill of materials necessary to construct the device is available.

Patrick McNamara defined 4 possible levels of Openness in Open Hardware.

Note: Open Business is not completely open

- * identity (brand) fixed and is a warranty certificate
- * existing business ecosystem may not be open
- * knowledge, expertise, tools, resources not always “open”



Source: <http://www.blender.org/blenderorg/blender-foundation/logo/> <http://www.arduino.cc>

The business models of Open Hardware

- * **Services and expertise** (customization, consulting)
 - * **Manufacturing** of owned or third party Open Hardware
 - * **Manufacturing of proprietary hardware** based on Open Hardware
 - * **Dual-licensing**
 - * **Proprietary hardware designs** based on Open Hardware
 - * Proprietary **software tools** for developing Open Hardware
 - * ... and ...
-

Business models for FabLabs

- * **Enabler** launch new Labs and support services
 - * **Education**: a global distributed model of education through Fab Labs (Fab Academy + peer-to-peer learning)
 - * **Incubator**: provide infrastructure for entrepreneurs to turn their Fab Lab creations into sustainable local businesses
 - * **Replicated / Network**: provide a product, service or curriculum that operates by utilizing the infrastructure, staff and expertise of a local Fab Lab
-

The business models of Open Hardware

The screenshot shows the homepage of the Sparkle Labs Electronics Kits website. At the top left is a cartoon character of a flask with a smiling face and three stars above it. To its right is the text "Sparkle Labs Electronics Kits". Above the main content area is a navigation bar with links: HOME, WEBLOG, PRODUCTS, LEARN, PROJECTS, and CONTACT. To the right of the navigation bar are two buttons: "BUY NOW ONLINE!" in a green box and "SAVE OR SHARE!" in a pink box. A speech bubble in the top right corner contains the text "CREATE HACK GROW". Below the navigation bar is a large, stylized title "Discover Electronics!" in pink and orange. To the right of the title is a breadboard with various electronic components like resistors, capacitors, and LEDs connected by wires. A green circular badge next to the breadboard says "Over 130 parts". At the bottom right is the Sparkle Labs logo, which includes a flask character and the text "by sparkle labs".

Sparkle Labs Electronics Kits

HOME WEBLOG PRODUCTS LEARN PROJECTS CONTACT

BUY NOW ONLINE! SAVE OR SHARE!

CREATE HACK GROW

Discover Electronics!

Learn to make your own circuits.

The growing DIY movement is empowering people to take control of their products and environment. The Discover Electronics Kit contains everything you need to learn the basics of electronics and make your own projects. It contains the most common electronics components as well as a prototyping breadboard for you to get started right away. Easy full color diagrams teach you how to bring your own ideas to life.

Online video course

Follow along with our videos online. Take the course at your own speed, complete assignments and share your progress.

Over 130 parts

by sparkle labs

Proprietary hardware tools for learning how to develop Open Hardware.

The business models of Open Hardware

The screenshot shows the Adafruit Industries website's jobs board page. At the top, there is a navigation bar with links for HOME, BLOG, FORUMS, SUPPORT, TUTORIALS, CHAT, VIDEOS, CONTACT, and JOBS. The main content area has a sidebar titled "JOBS BOARD" containing a list of categories: CAD & 3D modeling, Art & Design, Burning Man, Engineering, Installations, Instruction and teaching, IT, Manufacturing, Photography, Production, and Programming. Below this is a search bar with fields for "Search for a job:" and "Search for a job" with a "search" button. The main content area is titled "JOBS" and contains a welcome message for visitors. It also includes a beta notice and a message asking for feedback. The page is divided into three columns: "Featured Jobs", "Most Recent", and "Most Applied To Jobs". Each column lists several job postings with details like title, type (full-time, part-time, contract), company, location, and date.

JOBS BOARD

CAD & 3D modeling
Art & Design
Burning Man
Engineering
Installations
Instruction and teaching
IT
Manufacturing
Photography
Production
Programming

[All Listings](#)
[All Full Time](#)
[All Part Time](#)
[All Contract](#)
[All Services Offered](#)

[Post a New Job](#)
[Post Skills Offered](#)

Search for a job:
 Search for a job

JOBS

Welcome to the Adafruit jobs board! The jobs board is for designers, makers, programmers, artists and engineers who are looking for great places work at & projects to work on. And like most job boards, this job board is for companies and people who need the best talent for their projects and companies.

This is a free service provided by Adafruit, all you need to do to use the job boards is be an Adafruit customer. To post your job offer or your skills (job-seeker) just log in to your Adafruit account and post a new job/skill listing or reply to the job listing.

We're currently in beta, please let us know if there are any issues are you use the site. Thank you and happy connecting!

| Featured Jobs | Most Recent | Most Applied To Jobs |
|---|---|--|
| Engineering Manager full-time at Parallax Inc. in Rocklin, CA | Systems Administrator part-time at SVA MFA Interaction Design in New York 25-05-2011 | Documentation/Tutorial Freelancer part-time at Seeed Studio, Anywhere 27 applicants |
| Embedded Linux Developer full-time at Bug Labs in New York | Mechatronics/Manufacturing Fellow contract at Driptech, Inc. in Mountain View, CA and China 19-05-2011 | SMD PCB Assembly contract at Starlino Electronics, Anywhere 22 applicants |
| Reliability Engineer (EE) full-time at Solectria Renewables in Boston, MA | Product Design Fellow contract at Driptech, Inc. in Mountain View, CA and Pune, India 19-05-2011 | Prototyper / Circuit and Product Design contract at HCX in New York 12 applicants |
| Photographer skills offered at John De Cristofaro in New York-New Jersey Metro Area | Product Development Lead full-time at Driptech, Inc. in Pune, India 19-05-2011 | |
| User Researcher full-time at Synaptics in Santa Clara, CA | | |
| Firmware/software developer | | |

Offering free services for building a greater user base.

Source: <http://www.adafruit.com/jobs/>

The business models of Open Hardware

Ponoko®

WWW.PONOKO.COM

+

sparkfun®
ELECTRONICS

=

Make and sell
electronic products

Now you can make and sell electronic products with your Personal Factory and showroom! [How it works](#)

Start making >

- Free Personal Factory & showroom
- No setup fees
- No minimum orders
- Custom made in 1 to 2 weeks
- Shipped to your door
- 365-day free replacement policy

 **1500+ new materials!**
[See the new materials](#)

sparkfun ELECTRONICS
Sparkfun is an official supplier to Ponoko of over 1500 new materials.

Partnership between hardware and fabbing companies

Source: <http://www.ponoko.com/make-and-sell/electronics>

The business models of Open Hardware

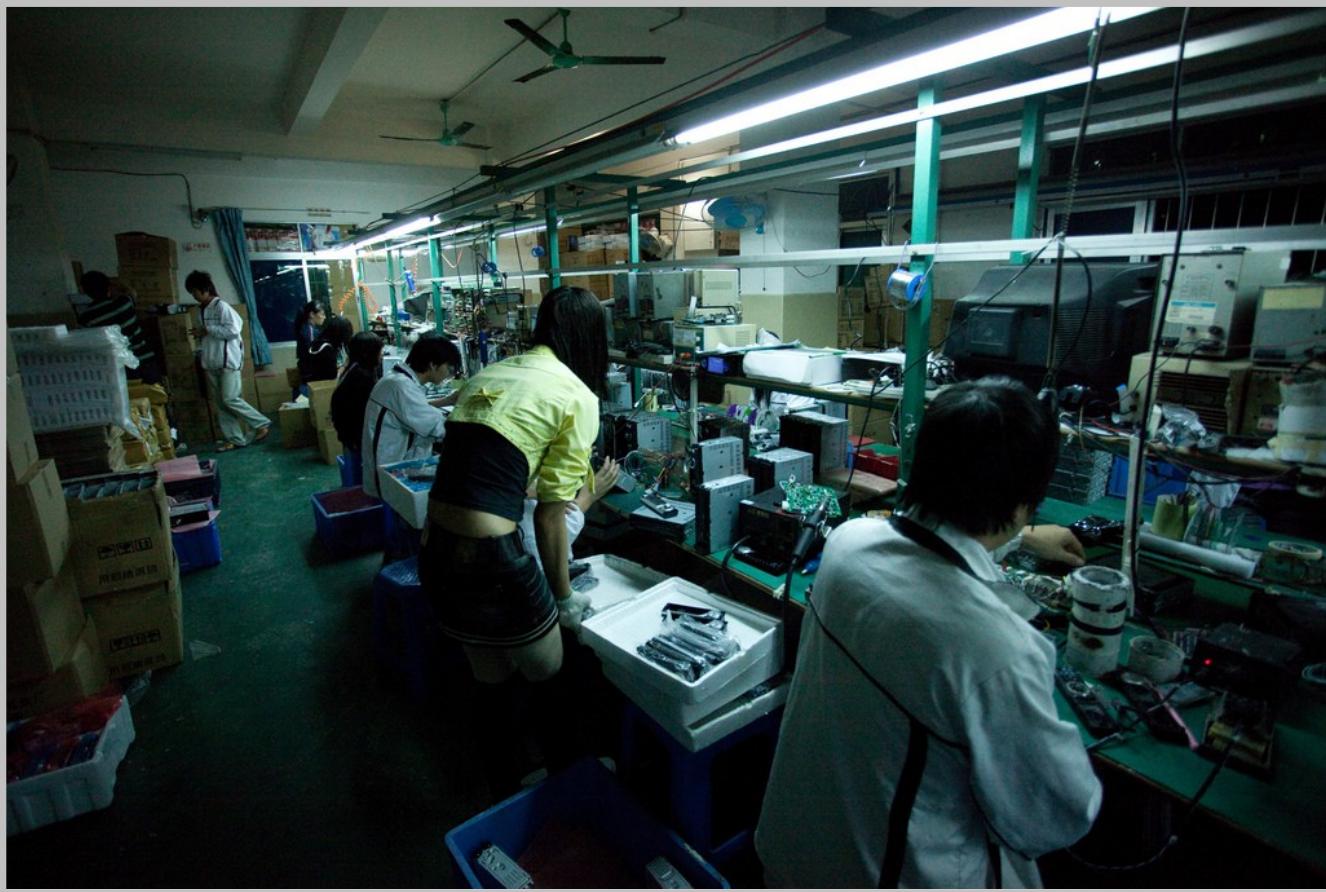
The screenshot shows the homepage of bildr.blog. At the top left is the logo "bildr.blog". To the right is a search bar with the placeholder "search blog..." and a magnifying glass icon. Further right is a "Login / Register" link. Below the header, there are two navigation links: "about" and "write for us". The main visual features a graphic of a modular electronic component on the left and a person holding a cardboard box with a speech bubble saying "Ours!" on the right. The text "communal knowhow" is overlaid on the right side of the graphic. Below this graphic is a descriptive paragraph about the website's focus on simplifying electronics DIY through modularizing information.

We are a community of makers, artists, designers, and builders focused on simplifying the world of electronics DIY by modularizing information. Instead of showcasing users' projects, we offer bite-size, easy-to-follow articles that help you hit the ground running.

Funding Open Hardware projects in exchange for documentation

Source: <http://bildr.org/>

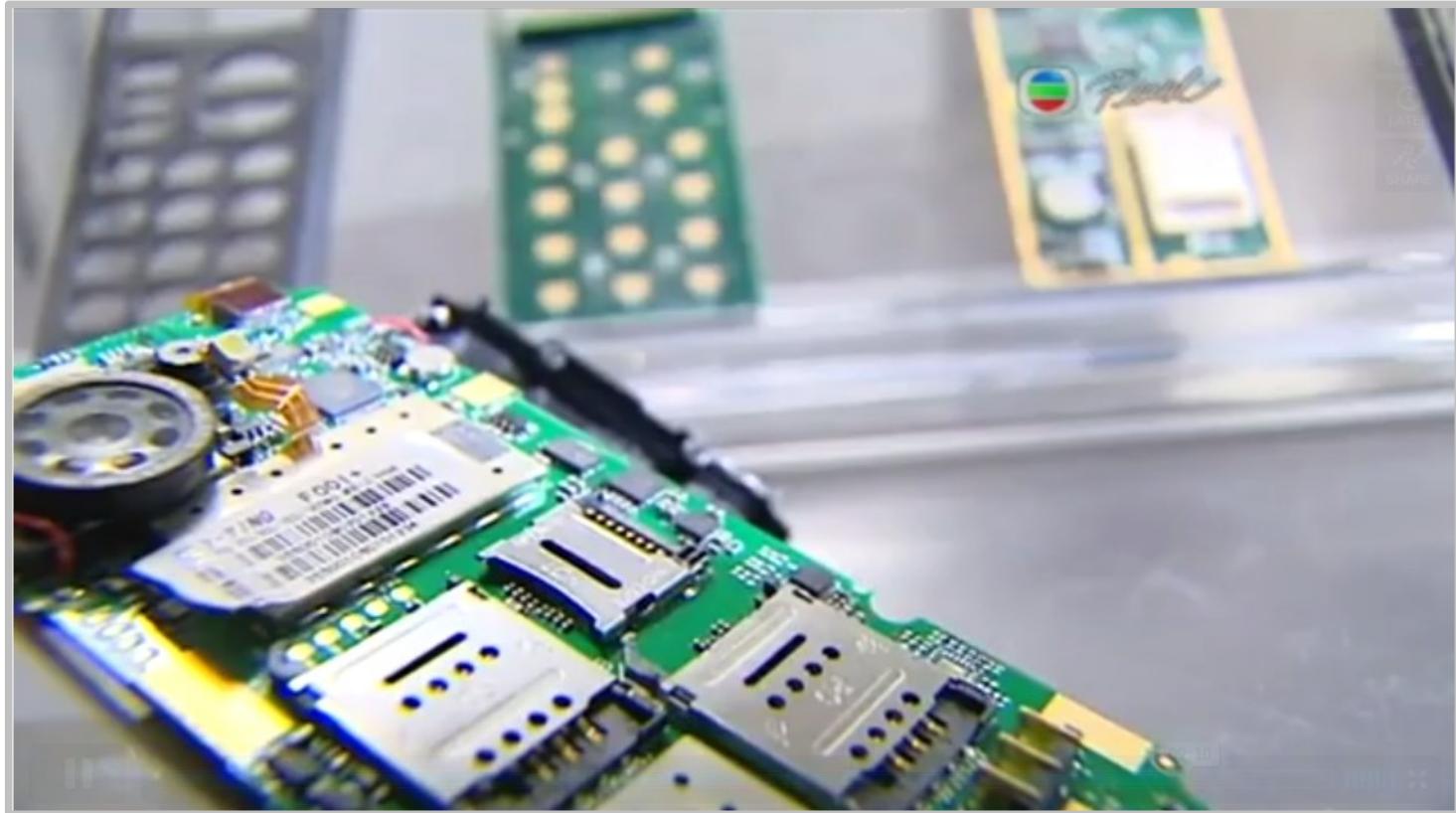
The business models of Open Hardware



Piracy as a learning and market building strategy: Shanzai

Source: <http://www.flickr.com/photos/ttstam/4177935719/>

The business models of Open Hardware



Piracy as a learning and market building strategy: Shanzai

The business models of Open Hardware

MakerBot Botcave Store Opens Today!

POSTED BY BRE PETTIS ON FRIDAY, NOVEMBER 26, 2010 IN BOTCAVE STORE



Brick and mortar stores: Makerbot, the Botcave

Source: <http://www.makerbot.com/blog/2010/11/26/makerbot-botcave-store-opens-today/>

The business models of Open Hardware



Renting spaces for co-working / funding spaces by a community: hackerspaces.

The business models of Open Hardware



Open Source Hardware Reserve Bank^{cc}
Supporting Do-It-Yourself Open Source Hardware Projects

The mission of the bank is to fund and invest in Open Source Hardware. It helps open source projects achieve scale discounts at low quantities of production, where most DIY happens. The objective of the bank is to break-even, and sustain and grow Open Source Hardware.

Queues

EqualizerShield

The EqualizerShield is a project from Matt and Chris for a 10x10 blue LED matrix that is intercompatible with the Arduino, Freeduino, and Illuminato.

It has two modes, one for a built-in 8-channel analog equalizer, and one for a serial-controlled LED matrix. [Click here to buy & build](#)



Microcredit / peer-to-peer lending / crowdfunding: Open Hardware Bank

Similar models for DIY Craft... Sewing Cafes

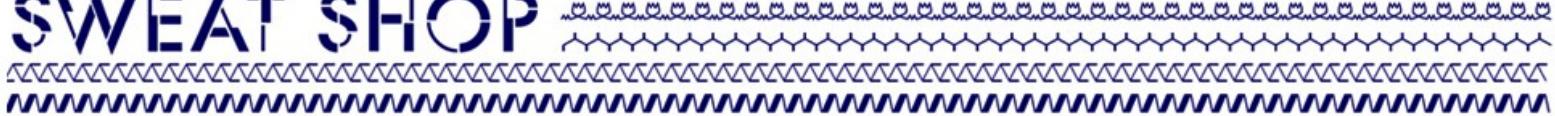


Renting spaces for co-working: Sewing Cafes

Source: <http://sweatshopparis.blogspot.com/>

Similar models for DIY Craft... Sewing Cafes

SWEAT SHOP

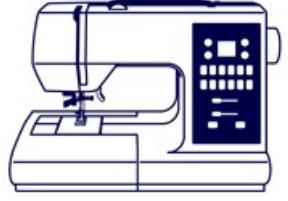


NOUVEAUTÉ
CONCEPT
LOCATION
ATELIERS
BON CADEAU
ÉVÉNEMENTS
PRESSE
CONTACT
LIENS

BLOG
SHOP

ENGLISH



1  = 6E/h

LOCATION DES MACHINES À COUDRE

Sur le principe des cybercafés, chacun a la possibilité de louer une machine à coudre sur place, à l'heure ou au forfait. À tout moment de la journée et sans rendez-vous, les clients peuvent venir s'installer à un poste de travail et commencer à coudre en utilisant une machine prêtée à l'emploi.

Sweat Shop met à disposition ciseaux, aiguilles, fils, etc.

| | |
|---|-------|
| 1H..... | 6E |
| 10H..... | 55E |
| 20H..... | 100E |
| Promo 'Couple'..... | 10E/H |
| Promo Day Pass (+café ou thé offert) .. | 25E |
| Location surjeteuse..... | 10E/H |

- 10% pour étudiants

Renting spaces for co-working: Sewing Cafes

Open Money: making digital a physical medium

The screenshot shows the Armory software interface for managing Bitcoin wallets. At the top, there's a menu bar with 'File', 'Wallet', and 'User' options. Below the menu is the 'Available Wallets' section, which lists four wallets with their IDs, names, security levels, and balances:

| ID | Name | Security | Balance |
|-----------|----------------------|---------------|-----------|
| 21udkeoTU | Not my money | Watching-Only | 3.377 |
| 36AjLSUM4 | Keys stored on EeePC | Offline | 4.0001 |
| 3VB8XSoY | Long-term savings | No Encryption | 11.7882 |
| 2zftxA7Q | First wallet | Encrypted | 12.878709 |

Below this is the 'Ledger' section, which displays a list of transactions with columns for Date, Wallet, Comments, and Amount. The transactions are as follows:

| Date | Wallet | Comments | Amount |
|---------------------|-------------------|---|---------|
| 2012-Jan-02 02:39am | First wallet | Swept one address to another in this wallet | 0.6295 |
| 2011-Dec-31 06:30pm | Long-term savings | | -3.4985 |
| 2011-Dec-31 06:30pm | First wallet | | 3.4985 |
| 2011-Dec-31 04:52am | Not my money | | 0.377 |
| 2011-Dec-31 04:52am | Long-term savings | | -0.507 |
| 2011-Dec-31 04:52am | First wallet | | 0.13 |
| 2011-Dec-28 03:52pm | Long-term savings | Transferred to my encrypted wallet | -1.00 |
| 2011-Dec-28 03:52pm | First wallet | | 1.00 |

At the bottom left, there's a 'Filter' dropdown set to 'All Wallets'. On the right, the total funds and spendable funds are displayed as **32.04450900 BTC**.

Money is now being redesigned by many open source projects, where the governance of the flows of digital money is designed by the software: Bitcoin.

Source: <http://en.wikipedia.org/wiki/Bitcoin>
http://www.wired.com/magazine/2011/11-mf_bitcoin/

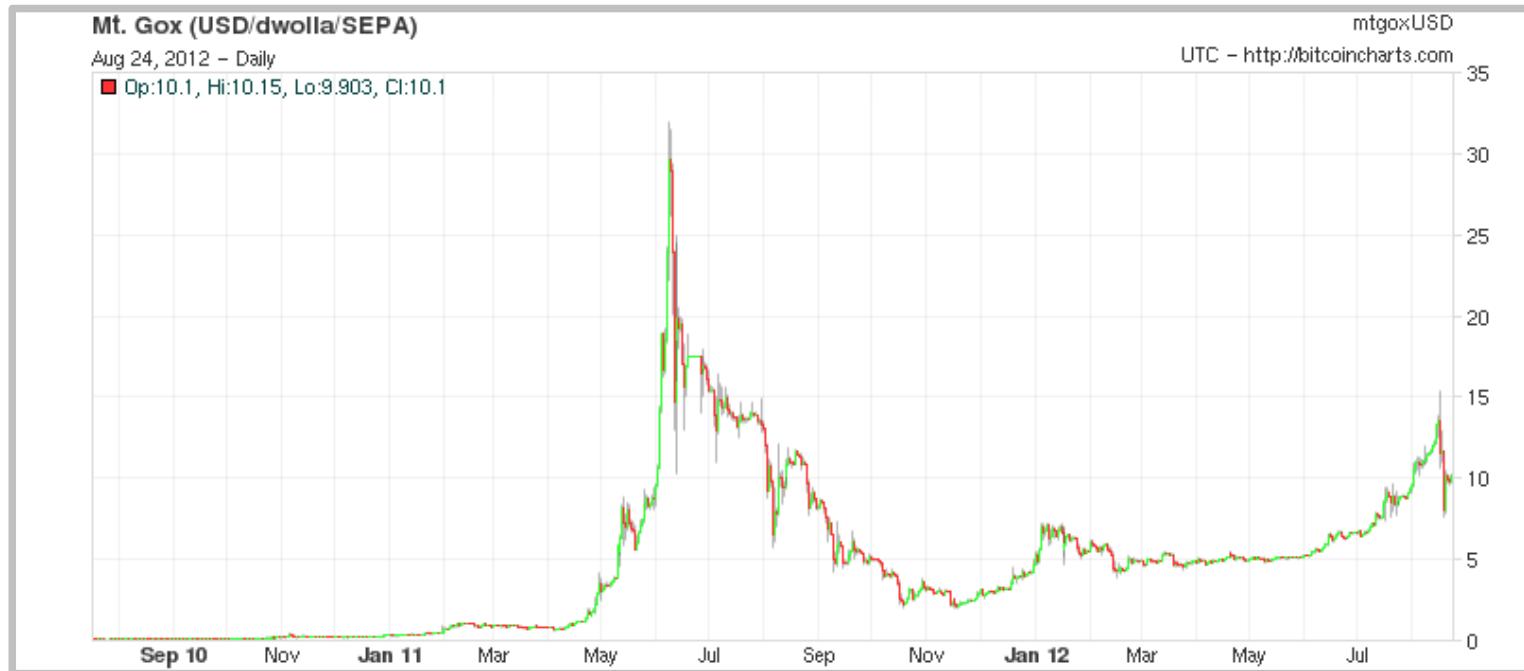
Open Money: making digital a physical medium



Money is now being redesigned by many open source projects, where the governance of the flows of digital money is designed by the software: Bitcoin.

Source: <http://www.youtube.com/watch?v=Um63OQz3bj0>

Open Money: it still needs business models



But redesigning money is only half of the solution: we need to understand its dynamics, and the possible business models it generates.

Source: <http://en.wikipedia.org/wiki/Bitcoin>
http://www.wired.com/magazine/2011/11/mf_bitcoin/

Crowdsourcing, mass-collaboration and work

“If crowdsourcing runs on people’s “spare cycles”—their downtime not claimed by work or family obligations—that quantity is now in surplus. [...] Crowdsourcing is proving to be highly efficient at identifying and exploiting those “spare cycles”.”

Source: Howe, J., 2008. *Crowdsourcing: Why the Power of the Crowd Is Driving the Future of Business* 1st ed., Crown Business.

“First the ‘human resource’ is not just inside the boundaries of your company. The world is your resource. This is more than outsourcing. Companies can now tap into vast pools of labour.”

Source: Tapscott, D. & Williams, A.D., 2006. *Wikinomics: How Mass Collaboration Changes Everything*, Portfolio Hardcover.

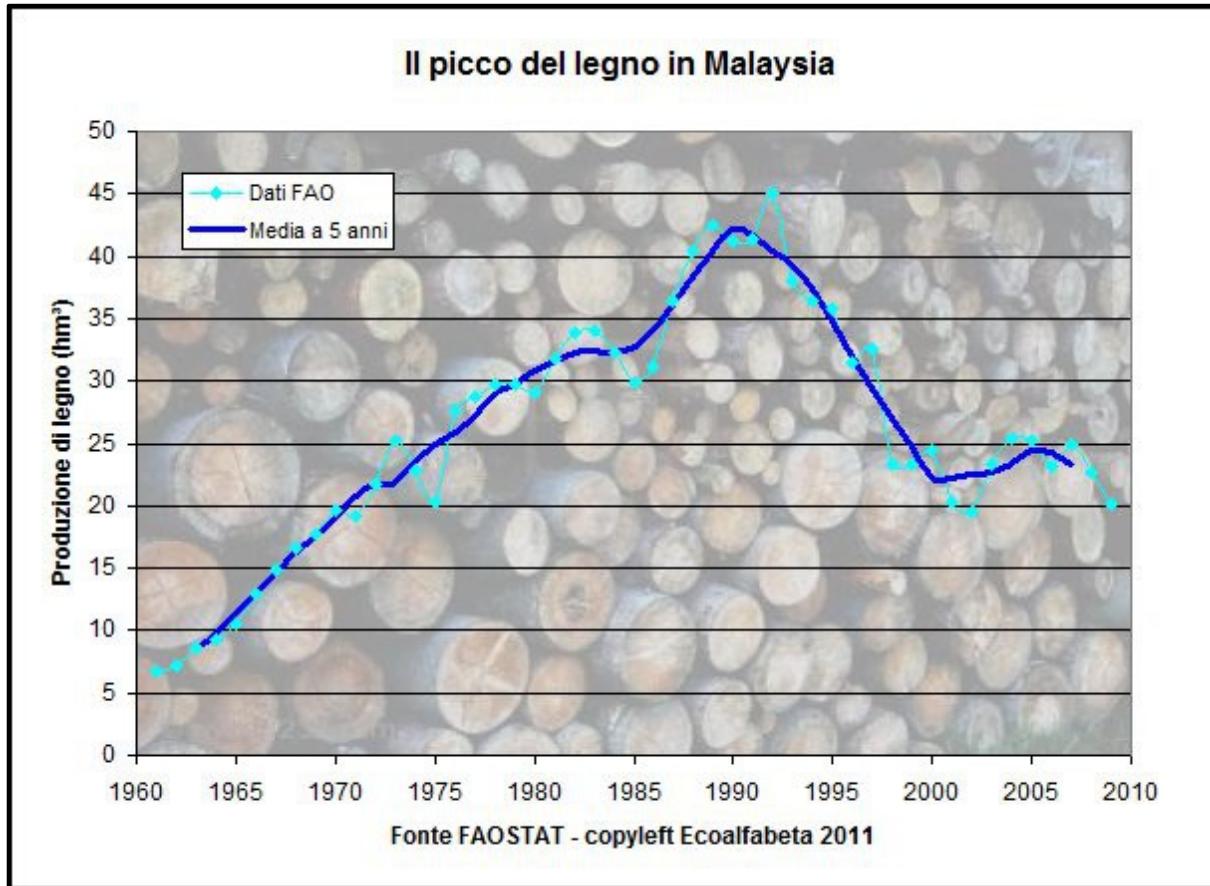
... and a lesson from the past



In 1914 Ford doubled the wages, enabling his workers to afford the cars they were producing. Ford explained the policy as **profit-sharing** rather than wages.

Source: http://en.wikipedia.org/wiki/Henry_Ford

When everything is peaking...



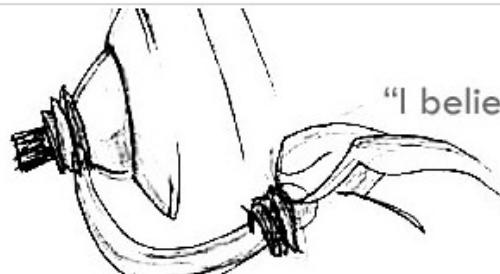
Even renewable resources like wood are peaking.. What and how are we going to manufacture when everybody will be able to do it?

Source: <http://ecoalfabeta.blogosfera.it/2011/03/il-picco-del-legno.html>

... reinventing an *open* wheel is not enough

Home Contact search...





"I believe in **horses**, automobiles are a transient appearance."

Wilhelm II. (1859-1941), German Emperor

Oscar - Main

- [Home](#)
- [Idea](#)
- [Concept](#)
- [Forums](#)
- [Documents](#)
- [Links](#)
- [Contact](#)

Oscar - Workbench

- [Integration](#)
- [Modules](#)
- [Tools](#)
- [Network](#)

Home

Oscar - Release 0.2

It is the goal of the OSCar Project to develop a car according to Open Source principles. In our opinion, a car is not a vehicle full of high-tech gadgets. Instead, we are looking for a simple and functional concept to spread mobility. Form follows function.

Apart from that, OSCar is not just a car. It is about new ways of mobility and the spreading of the Open Source idea in the real (physical) world. On this website, you will find a great community of developers and drivers who want to invent mobility anew and together.

The project started in 1999. In December 2005, it reached release 0.2. Starting in 2006, everyone is welcome to participate.

[PDF](#) [PRINT](#) [EMAIL](#)



Design Contribution Rel. 0.2 by Tiago Do Vale (2006)

Login User

Username
Password
 Remember me
Login [Lost Password?](#)

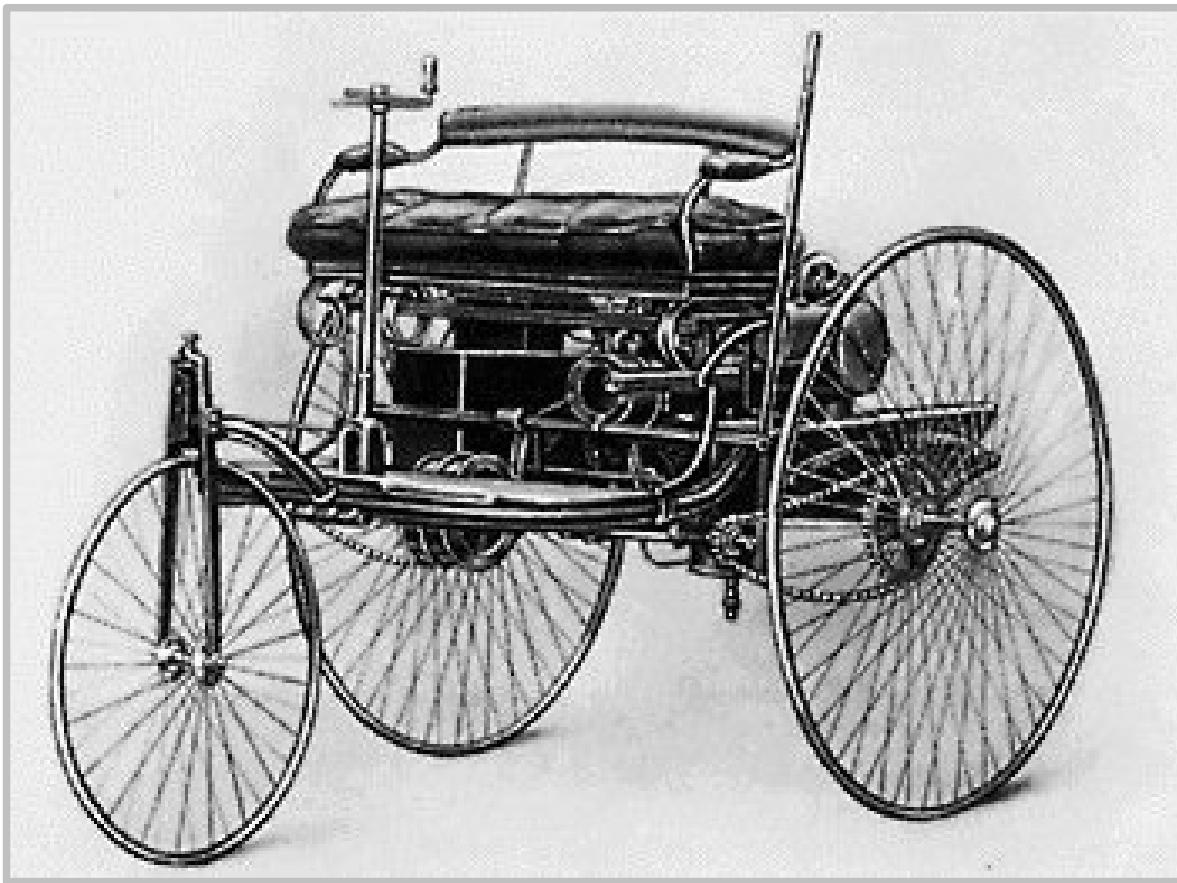
No account yet? [Register](#)

Most Active Threads

1. [This thread has fallen out of scope for \(354\)](#)
2. [free piston engine / Freikolben-Motor Discussion \(179\)](#)
3. [4 wheeler or 3 wheeler? \(148\)](#)

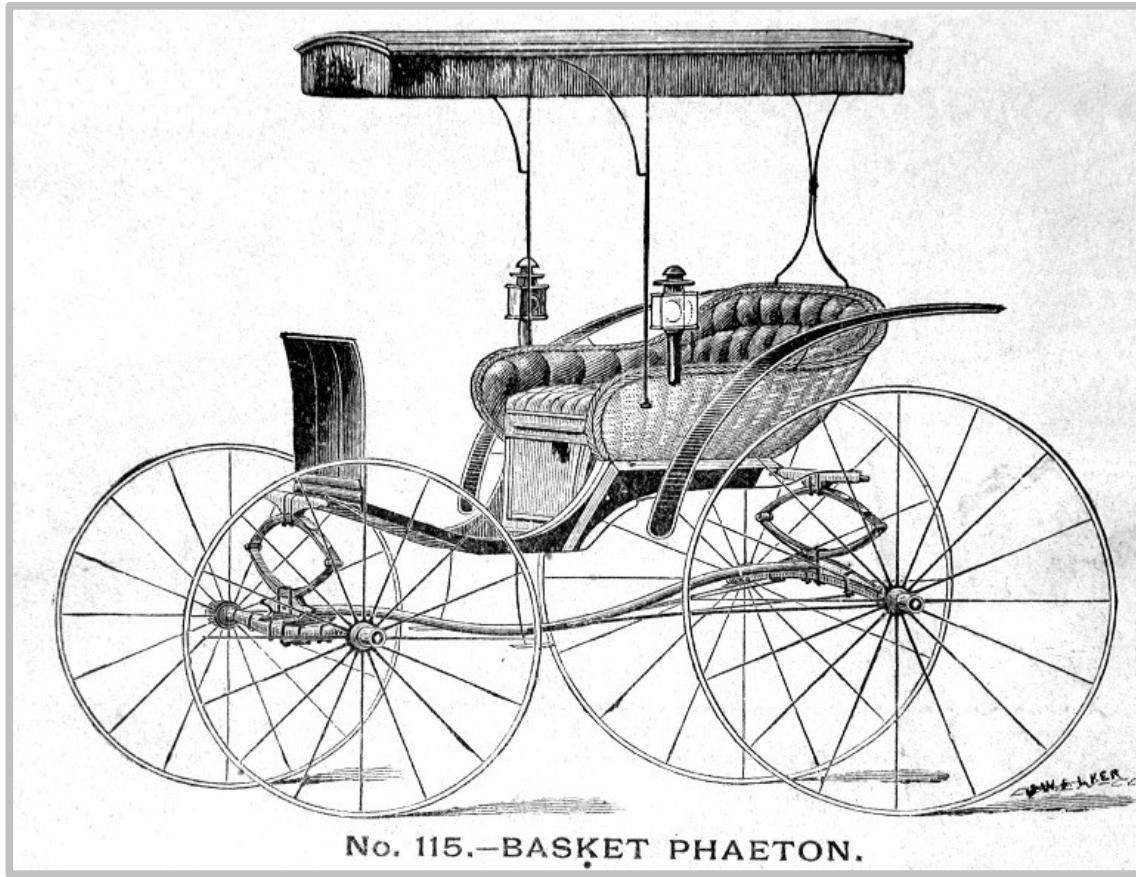
Will just making open an unsustainable past be sustainable?

New language, business for the new media



Every new technology takes time to develop its own uses, languages and business models.

New language, business for the new media



Every new technology takes time to develop its own uses, languages and business models.

... blocks of an Open, DIY and P2P Economy

- * open business f~~or~~**design, energy, materials, tools**
 - * open business that consider information ~~and~~**abundant** but materials and energy ~~and~~**scarce resources**
 - * open money (but well designed ~~and~~**linked to energy and materials**)
 - * API and **Open Data** between open businesses
 - * Open**processes + distributed testbeds** of business models
-

A”

Aalto University
Media Factory

Thank you!!

Massimo Menichinelli
Aalto Media Factory
massimo.menichinelli@aalto.fi
[@openp2pdesign](https://twitter.com/openp2pdesign)
<http://www.slideshare.net/openp2pdesign>

