



Aalto University  
Media Factory

# Digital\_Fabrication\_Studio.01

## Media, Business, Platforms

Massimo Menichinelli

massimo.menichinelli@aalto.fi

@openp2pdesign

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



10.09.2012



Aalto University  
Media Factory

## This afternoon:

- \* The Media ecosystem of Fabbing
- \* Platforms for Fabbing and projects
- \* Business models for Open projects



Aalto University  
Media Factory

01.

# The Media ecosystem for Digital Fabrication, Open Design and DIY

# Wired

The screenshot shows the homepage of wired.com. At the top, the word "WIRED" is displayed in large, bold, white letters against a black background. To the right of "WIRED" is a "Subscribe" button. Below the main title, there are several news articles with accompanying images and timestamps.

- 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  

- NEW MOVIES**  
**Underground Brings Drama to Julian Assange's Teenage Hacker Days**  
10 hours ago  

- WIRED OPINION**  
**AT&T's FaceTime Blocking Hurts the Deaf**  
15 hours ago

Below the news section is a navigation bar with links: SUBSCRIBE >>, SECTIONS >>, BLOGS >>, REVIEWS >>, VIDEO >>, HOW-TOS >>, MAGAZINE >>. There is also a link to "WIRED ON YOUR TABLET >>".

On the left side, there are three smaller news items:

- 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  


In the center, there are two more news items:

- 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

On the right side, there is a large advertisement for Marriott:

**EXPERIENCE THE WORLD OF MARRIOTT**

Marriott understands that 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)

The screenshot shows the homepage of the DIY Drones website. At the top, there's a navigation bar with links for HOME, VIEW CART, MY ACCOUNT, and HELP. Below the navigation is a search bar. The main header "DIY DRONES" is prominently displayed, with the subtitle "AMATEUR UAV SUPERSTORE" and the text "PROPELLED BY 3DRobotics". A sidebar on the left lists various product categories under "DIY PRODUCTS", including 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, and R.I.P. There are also social media links for FOLLOW US on Facebook and Twitter. The central content area features a large FedEx cargo plane in flight with the text "SAME DAY SHIPPING IN STOCKED ITEMS! FEDEX BEFORE 3PM PST USPS BEFORE 12PM PST". To the right, there's a "Top Sellers" section showing a hexacopter frame and a "New Products" section listing various items like Dean Y cables, servo splitters, and OSD boards. The footer contains a copyright notice: "© 2007-2012 DIY Drones. All rights reserved."

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

Like Send 1,437 people like this. Be the first of your friends.

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

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](http://www.wired.com/dangerroom/2012/06/ff_drones)

# “Makers” from Chris Anderson

The screenshot shows the Amazon product page for the book "Makers: The New Industrial Revolution" by Chris Anderson. At the top, the Amazon logo is visible along with navigation links for Massimo's Amazon.com, Today's Deals, Gift Cards, and Help. Below the logo, there are dropdown menus for "Shop by Department" and "Books". The search bar contains the query "makers". The main product image is a black and white photograph of the book cover, which features the title "MAKERS" in large letters and "THE NEW INDUSTRIAL REVOLUTION" below it, with the author's name "CHRIS ANDERSON" at the bottom. A small note indicates the author is also the author of "The Long Tail". Below the image, there is a link to "See larger image" and a note about searching inside the book. The product title "Makers: The New Industrial Revolution [Hardcover]" is displayed, followed by the author's name "Chris Anderson" and a "(Author)" status indicator. A "Like" button with a count of "(3)" is shown. The list price is \$26.00, and the current price is \$13.98, which is eligible for free shipping. A note says you save \$12.02 (46%). A pre-order price guarantee is mentioned. The release date is October 2, 2012. The book is shipped from and sold by Amazon.com, with gift-wrap available. A table shows the availability of different formats: Kindle Edition (\$19.04), Hardcover (\$13.98), and Audio, CD, Audiobook, Unabridged (\$23.10). The Hardcover format is highlighted with a yellow background. The book is described as being about a new industrial revolution driven by garage tinkerers and enthusiasts.

Formats	Amazon Price	New from	Used from
Kindle Edition	\$19.04	--	--
Hardcover	\$13.98	\$13.98	--
Audio, CD, Audiobook, Unabridged	\$23.10	\$23.10	--

**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 "Make 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: Make

The screenshot shows the O'Reilly Media website homepage. At the top left is the O'Reilly logo featuring a small illustration of a primate and the text "O'REILLY" with the tagline "Spreading the knowledge of innovators". To the right are links for "Your Account" and "Shopping Cart". A navigation bar below includes "Home", "Shop", "Radar: News & Commentary", "Answers", "Safari Books Online", "Conferences", "School of Technology", and "Community". Below the navigation is a "Popular Topics" section with links to Programming, JavaScript, iPhone, Android, Python, Head First, HTML5 & CSS, Microsoft, Java, Perl, and Linux. Social media icons for YouTube, Flickr, Facebook, Twitter, Google+, and RSS are also present.

**Free to Choose**  
Save 50% on All O'Reilly Ebooks + More

With our Back-to-School Special, you choose what to learn and we give you the tools to make it happen.

Save up to 50% on ebooks, videos, print books, and courses. Use Discount Code **B2S2**

[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.

[View the Full Starter Kit](#)

**Shop Our Wide Selection of Books & Videos**

[SHOP NOW](#)

**Deals of the Day**

**Shipping Greatness**  
Ebook — \$7.99 (Save 50%)  
Use code: **DEAL**

**Get O'Reilly Deals**  
Enter your email here [Join](#)

**Microsoft SharePoint 2010 Administrator's Companion**  
Ebook — \$23.99 (Save 50%)  
Use code: **MSDEAL**

**Get Microsoft Press Deals**  
Enter your email here [Join](#)

**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/>

# 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 bar. Below the navigation is a banner for "Get MyLifeScoop.com" featuring a magazine cover for "Make: Dog Ball Launcher". To the right is a large orange "SUBSCRIBE!" button with the text "BUILD THIS DOG BALL LAUNCHER!". The main content area has three articles listed:

- DIY Ten Step Sequencer**: A photograph of a breadboarded electronic circuit with various components and red push-buttons. The article is by Michael Colombo and was published on 2012/09/07 at 12:00 pm.
- Mini Maker Faire Action**: A photograph of a crowded indoor event with many people and booths. The article is by Sabrina Merlo and was published on 2012/09/07 at 11:15 am.
- Nominate Companies For The Makey Awards!**: An illustration of a red robot wearing a top hat and bow tie, with a large letter 'M' on its chest. The article discusses the 2nd Annual MAKE Magazine Maker Industry Awards.

On the right side of the page, there's a sidebar with a "Simplify your life through technology" message, a "Get MyLifeScoop.com" button, a photograph of a laptop displaying the website, and a newsletter sign-up section. The newsletter sign-up includes fields for email and a "GO!" button, and a message encouraging users to join the Make: newsletter for exclusive discounts and news. Below this are two columns of category links:

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

Beside the magazine...

Source: <http://blog.makezine.com/>

# Make: an online store

MAKE Magazine Kits Maker Faire Make: Projects Maker Shed

Search our store... Search

Login / My Account / Help  
Shopping Cart: (Your shopping cart is empty.)

\$5 SHIPPING! ON ORDERS OVER \$50   

 **Maker SHED**

ALL PRODUCTS NEW ARRIVALS GIFT GUIDES GIFT CERTIFICATES MAKE CATALOG (PDF)

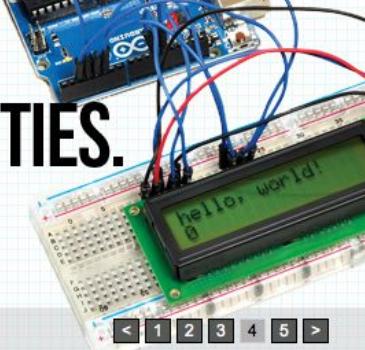
[Weekly Deal](#)

**SALE**

[Arduino & Microcontrollers](#)  
[Books & Magazines](#)  
[Craft](#)  
[Food & Drink](#)  
[Intro Electronics](#)  
[Kits](#)  
[Music & Audio Gear](#)  
[Personal Fabrication](#)  
[Robots & Robotics](#)  
[Tools](#)  
[Wearables](#)  
[Product Archive](#)  
[Maker Camp](#)  
[Make: & Maker Faire Merchandise](#)

**ONE BOX. MILLIONS OF POSSIBILITIES.**  
Ultimate Microcontroller Pack

[Learn More »](#)

  
1 2 3 4 5 >

**NEW ARRIVALS**

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

[LEARN MORE](#)



**MAKE: VOLUME 31**

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

[LEARN MORE](#)



**WEEKLY DEAL**

**Use it Quick Sugru**

[LEARN MORE](#)



Beside the magazine...

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

# Make: a series of local faires

MAKE Kits Magazine Maker Faire Make: Projects Maker Shed  Search

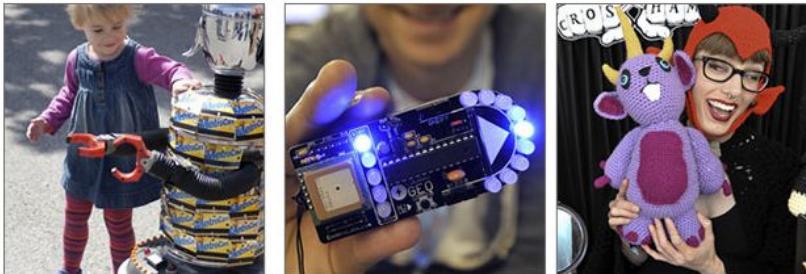
*A two-day, family-friendly festival of invention, creativity and resourcefulness, and a celebration of the Maker movement.*

## 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





GET NEWS AND UPDATES ON ALL FAIRES AND CALLS FOR MAKERS

Enter your email  Go!



WORLD MAKER FAIRE NEW YORK 2012 COUNTDOWN!

20 : 19 : 20 : 21  
DAYS HOURS MINUTES SECONDS



Maker Faire ADMIT ONE BUY NOW!

GET YOUR TICKETS TODAY!

Maker Faire Sponsors

**Atmel®**

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

 [Blog](#) [MAKE Magazine](#) [Videos/Podcasts](#) [Make: Projects](#) [Forum/Community](#) [Maker SHED Store](#)

[RSS](#) [Google Custom Search](#) [Search](#)

**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:** [!\[\]\(c6b316602b034bd96f293b8d58b50879\_img.jpg\) Maker SHED](#) [!\[\]\(fe43f63f9d39ec17f3a86c57307cfd93\_img.jpg\) Maker Faire](#)

**FREE TRIAL ISSUE** [!\[\]\(a135b014455c99f7250627bb03729e3f\_img.jpg\)](#)

**TAKE A SHORT SURVEY!**

Welcome to Make: television

[Episode guide and PDFs »](#)  
[Broadcast listings »](#)  
[Submit your video »](#)  
[About Make: television »](#)  
[MAKE: Day »](#)  
[Make: television Outreach »](#)  
[Make: television press »](#)  
[About our sponsors »](#)  
[Make: television on iTunes »](#)  
[Make: television forums »](#)  
[Flickr photo group »](#)  
[Facebook fan page »](#)  
[Follow us on Twitter »](#)  
[Contact us »](#)

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

[Login / My Account / Help](#)  
[Shopping Cart: \(Your shopping cart is empty.\)](#)

**\$5 SHIPPING!** ON ORDERS OVER \$50

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

[Weekly Deal](#)

[Home > Product Archive >](#)  
DISCONTINUED - MakeController Kit v2.0

[SALE](#)  
[Arduino & Microcontrollers](#)  
[Books & Magazines](#)  
[Craft](#)  
[Food & Drink](#)  
[Intro Electronics](#)  
[Kits](#)  
[Music & Audio Gear](#)  
[Personal Fabrication](#)  
[Robots & Robotics](#)  
[Tools](#)  
[Wearables](#)  
[Product Archive](#)  
[Maker Camp](#)  
[Make: & Maker Faire Merchandise](#)  
[Shipping Info](#)



[+ Larger Photo](#) [Email a Friend](#)

[2](#)

[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](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, there 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 displays several project thumbnails: "Stitch it!" showing a fabric pendant, "Folding Chair Makeover" showing two chairs, "Blackwork Stop Motion Animation" showing a person working on a project, and "New York Maker Faire! Sept. 29 & 30, 2012" with a call to buy tickets. There is also a "Fab." section featuring various colorful objects like a red keyboard, a yellow bicycle, and a red armchair.

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))

# No idea for a project? Hack one!

The screenshot shows the homepage of the IKEA Hackers website. The header features the "IKEA HACKERS" logo with a stylized lightbulb icon above a small figure holding a wrench. Below the header is a navigation bar with links for "Home", "About", "Start here", and "Post a hack". The main content area displays three images of hacked IKEA furniture: a mirrored side table labeled "Mirrored luxe", a lamp made from a guitar neck labeled "Extendable bedside lamp", and a white-painted Aneboda chest labeled "Aneboda chest makeover".

IKEA HACKERS

Home About Start here Post a hack

Mirrored luxe Extendable bedside lamp Aneboda chest makeover

IKEA products are cheap enough, there are many options and components that can be reused.

Source: <http://www.ikeahackers.net/>

# Makerbot TV

The screenshot shows the homepage of the MakerBot TV website. At the top, the "MakerBot TV" logo is displayed in a large, bold, black font. To the right of the logo are two links: "About MakerBot TV" and "Go to makerbot.com →". Below the logo is a large video thumbnail featuring three spools of filament (yellow, blue, and red) and the text "makerBot TV". A play button icon is centered over the thumbnail. To the right of the thumbnail, the title "MakerBot TV S02E11 - MakerBot A Robot!" is displayed in red and black text. A brief description follows: "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 main content area, there are sections for "RECENT VIDEOS" and "SUBSCRIBE". The "RECENT VIDEOS" section lists two entries: "May 21, 2012 MakerBot TV S02E12 - Maker Faire" and "May 14, 2012 MakerBot TV S02E11 - MakerBot A Robot!". Each entry includes a thumbnail image of the video player and a brief description. The "SUBSCRIBE" section provides links to follow the channel via RSS, Twitter, and Facebook. At the bottom, there is a "RECENT COMMENTS" section with a comment from "Craig The Fabricator" about a previous episode.

**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...

**SUBSCRIBE**

Be notified of new videos by RSS  
Follow us on Twitter  
Be a fan on Facebook

**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 S02E08 - 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

# MakerBot TV

[About MakerBot TV](#)

[Go to makerbot.com →](#)

September 7, 2011

## MakerBot TV Launch Episode!



Related

Map



MakerBot TV Season 1  
Episode 11



MakerBot TV Season  
Finale!



MakerBot Sends  
Stephen Colbert to  
Space

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

Source: <http://makerbot.tv/LtHr/makerbot-tv-launch-episode/>

# 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 white 3D-printed iPhone camera mount attached to a printer. 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! Universal iPhone camera mount for attaching your iPhone to anything you want to film! Designed for filming timelapse videos of 3d prints or anything you want! Adjustable arms to allow you to film from a number of angles, should attach to most printers or just about anything, here's an example using the camera mount printing thing:12105: youtube.com/watch?v=nVrfkTOayTc". Below the description, there are several small thumbnail images showing different views of the 3D print. At the bottom of the main content area, there are social sharing buttons for Twitter, Facebook, and Pinterest, along with a "submit" button. On the left side, under the "Downloads" section, there are four STL files listed: "ARM 1.STL", "ARM 2.STL", "ARM SWI...STL", and "CAP.STL", each with its file size, download count, and upload date. On the right side, there's a "Latest From The Thingiverse Blog" section featuring a thumbnail of a blue 3D-printed object and a link to "Lost and Found: Air Hockey Edition".

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 and 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 search bar with the word 'Handmade' and a dropdown arrow, followed by a 'Search' button. To the left, there's a sidebar titled 'Categories' listing numerous craft-related categories like 'Accessories', 'Art', 'Bags and Purses', etc. The main content area features several promotional boxes: 'Showcase' (Fresh picks from sellers), 'Treasury' (Browse member picks), and 'Graduation Showcase' (Sellers' top picks for grads). Below these are sections for 'Handpicked Items' and 'Picked by Kookoowa', each displaying a grid of eight craft items with their names and prices.

**Categories**

- 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
- Paper Goods

**Showcase**  
Fresh picks from sellers  
ITEM BY ALICIABOOK

**Treasury**  
Browse member picks  
ITEM BY GRIGIO

**Graduation Showcase**  
Sellers' top picks for grads  
ITEM BY WOODSYWOODS

**Handpicked Items** See more

**Picked by Kookoowa**

Item	Description	Price
	Love Tamil-Hand Painted... cocopunkz	\$270.00 USD
	I KILL PXLS Bangle sisicata	\$50.00 USD
	mix'n'match com... OhGosh	\$49.00 USD
	Shopping Day Earrings posystudio	\$85.00 USD

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.

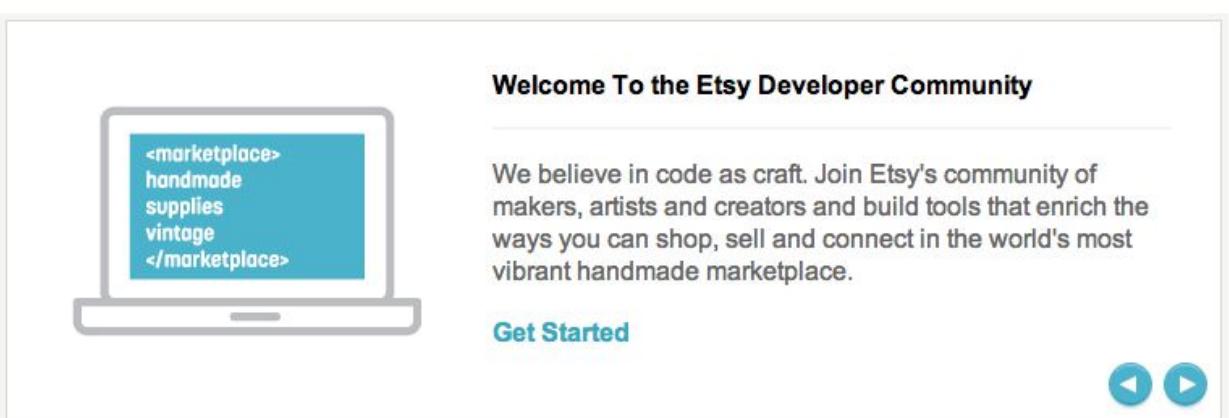
**Get Started**

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](http://www.etsy.com/developers?ref=ft_dev)

# Etsy: a platform for DIY



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 Blomming, a social commerce platform. At the top, there is a navigation bar with links for "HOW IT WORKS", "WHY IT WORKS", "PRICING", "SUPPORT", and "LOG IN". The main header features a green chameleon logo with the word "blomming" in lowercase, followed by the tagline "the social e-commerce". Below the header, there are two main sections: "buy" and "sell". The "buy" section on the left displays a grid of six product images: a grey shoulder bag, a white owl plush toy, a blue necklace with a large green stone, a patterned shoulder bag, a blue dress, and a row of colorful tassels. A large green button labeled "EXPLORE" is centered below these images. The "sell" section on the right features a large green button labeled "OPEN YOUR SHOP" with a "FREE" badge. To the left of this button, there is a "SIGN UP WITH facebook" button and a "OR SIGN UP WITH YOUR EMAIL" section with fields for "Username", "E-Mail", and "Password". A note at the bottom of this section states: "By signing up you accept our [Terms of Service](#) and [Privacy Policy](#)". At the bottom of the page, there is a call-to-action for installing the Blomming app on mobile devices, accompanied by icons for various platforms. The footer contains links for Blomming (About / Blog, Magazine, Newsletter), Legal (Terms of Service, Privacy Policy, Acceptable Use Policy), Social (Facebook, Twitter, Google+), and media coverage logos for TC, WIRED, Gartner 2012 Cool Vendor, 24 DIRE, TNW, and la Repubblica. It also includes a language selection dropdown set to English and social sharing metrics for Facebook (1.4k likes) and Twitter (260 tweets).

HOW IT WORKS WHY IT WORKS PRICING SUPPORT LOG IN

blomming the social e-commerce

buy

FIND & DISCOVER THOUSANDS OF UNIQUE OBJECTS AND FINE ITEMS, ALWAYS UPDATED

sell

PUBLISH & SHARE ON FACEBOOK, ON YOUR WEBSITE, ON YOUR BLOG, ON BLOMMING

EXPLORE

SIGN UP WITH facebook

OR SIGN UP WITH YOUR EMAIL

Username ?

E-Mail

Password

By signing up you accept our [Terms of Service](#) and [Privacy Policy](#)

OPEN YOUR SHOP FREE

Install the Blomming app on your mobile device

Browsing language: English

Blomming  
About / Blog  
Magazine  
Newsletter

Legal  
Terms of Service  
Privacy Policy  
Acceptable Use Policy

Social  
Facebook  
Twitter  
Google+

TC  
WIRED  
Gartner 2012  
Cool Vendor  
24 DIRE  
TNW  
THE NEXT WEB  
la Repubblica

260

1.4k

FREE

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, there's a red banner with the Ponoko logo and the tagline "the world's easiest making system". Below the banner is a grey navigation bar with links for "home", "buy", "sell", "make", "apps", "blog", and "support". The main content area features a woman sitting in a wooden chair, writing in a notebook. A small table next to her holds a red device with a glowing exclamation mark, a smartphone, and a mouse. Four callout bubbles point to the device: one says "Electronics", another says "3D printing", a third says "Laser cutting", and a fourth says "CNC routing". To the left of the woman, there's a button labeled "How it works »" and a link "Pricing from \$0 ». The background of the main area is white.

*The future of products is here*

## Personal Factory™ 5

Now with App Gateway to create almost anything, and CNC routing to make big things.

[How it works »](#)

[Pricing from \\$0 »](#)

Laser cutting

Electronics

3D printing

CNC routing

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
<b>United States</b>			
CA Oakland	Ponoko	3D printing CNC routing laser cutting	materials materials materials
GA Atlanta	Ponoko	CNC routing	materials
<b>New Zealand</b>			
Wellington	Ponoko	laser cutting	materials
<b>Germany</b>			
Berlin	Formulor	laser cutting	materials
<b>Italy</b>			
Milan	Vectorealism	laser cutting	materials
<b>United Kingdom</b>			
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 website's developer program section. At the top, the Ponoko logo and tagline "the world's easiest making system" are visible, along with a navigation bar for home, buy, sell, make, apps, blog, and support. A decorative banner with red 3D printed objects like gears and hearts runs across the top.

## Apps

App Gateway   Developer Program

### Personal Factory Developer Program

Build apps for Personal Factory and distribute them in the Personal Factory App Gateway

[Join now \(it's free\) »](#)

 A large icon featuring a hammer and a gear, set against a background of binary code and a blueprint grid.

 **Create an app**  
Get access to the Sandbox and Live APIs – and let us do the making for you. [Find out more »](#)

 **Developer resources**  
Get API documentation, code samples and technical support. [Find out more »](#)

 **Personal Factory App Gateway is coming soon!**  
Distribute your 'making apps' to the people who care the most.  
[Learn more »](#)

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)

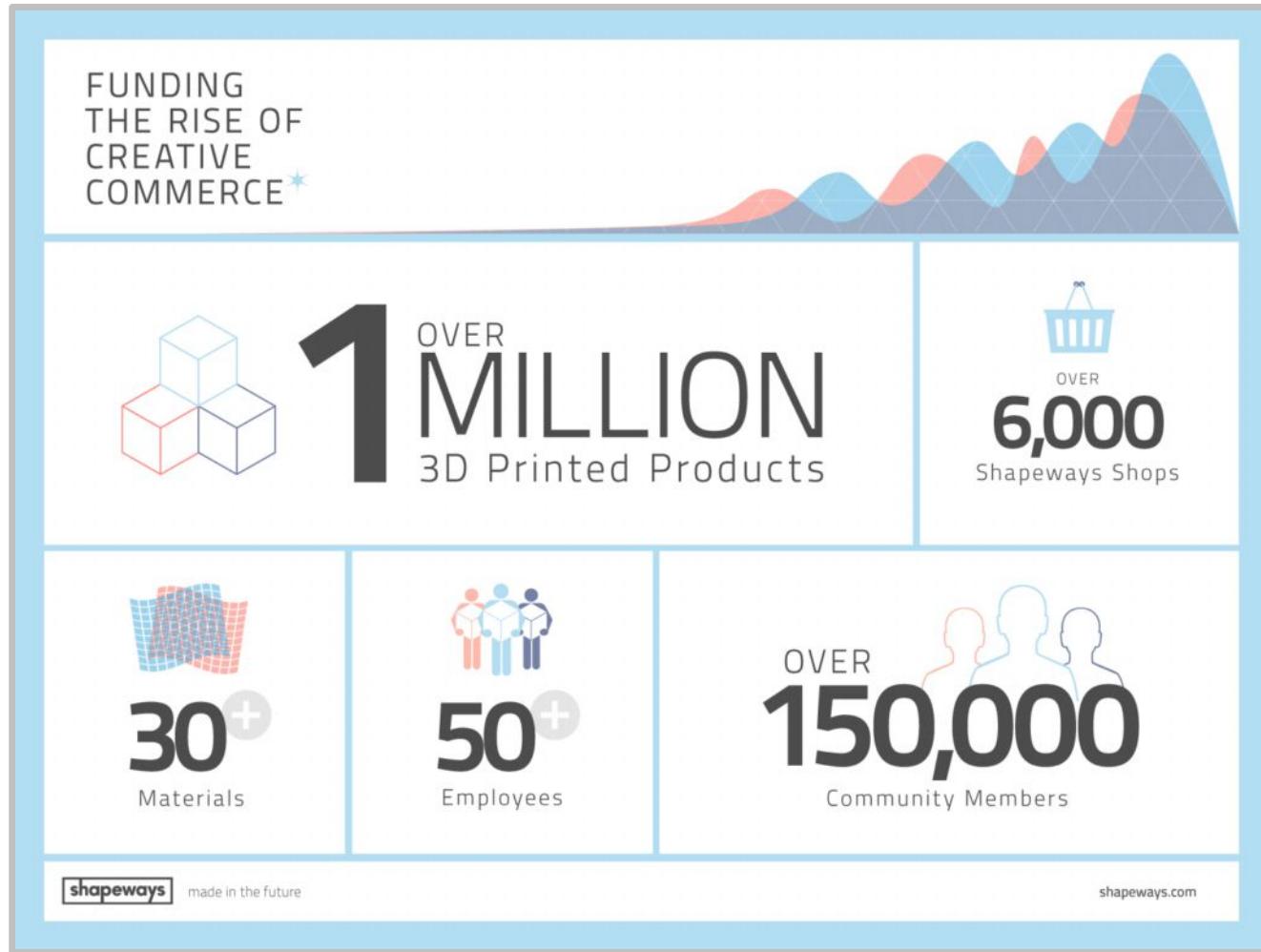
The screenshot shows the Shapeways homepage. At the top, there's a blue header with the Shapeways logo, a search bar, and buttons for 'Create', 'Discover', 'Community', 'Go', 'Cart', 'Register', and 'Log in'. Below the header, a large video player displays a video titled 'Shapeways 3D Printing & the Culture of Creativity' with a play button over it. To the right of the video, the text 'Make & Share Your Products With 3D Printing' is displayed, along with a red 'Join Now!' button and a link to 'Upload now ». Below this, there's a section titled 'Discover 3D Printed Products' featuring four product cards:

- Animaris Geneticus Par...** by Theo Jansen (107 reviews, From: €90.73)
- Bicycle Chainring Cuffli...** by GothamSmith (75 reviews, From: €56.62)
- Klein Bottle Opener** by Bathsheba Sculpture LLC (18 reviews, From: €72.66)
- Moustache Cufflinks** by GothamSmith (11 reviews, 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](http://www.youtube.com/watch?feature=player_embedded&v=qJuTM0Y7U1k)

# i.materialise (Belgium)

The screenshot shows the homepage of i.materialise. At the top, the logo "i.materialise" is displayed in blue script, followed by 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 three 3D-printed objects: a tall wooden-style figure, a small golden figure, and a larger, more complex golden figure. To the right of these figures, 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 is positioned at the bottom right of the banner. Below the banner, the text "WHAT CAN I DO HERE?" appears in a small, bold, black font. There are two main call-to-action sections. On the left, under the heading "Upload and Order", there is an illustration of a green crocodile-like creature with its mouth open, followed by a white arrow pointing to a green 3D-printed version of the same creature. Below this is a button labeled "3D print your designs". Underneath the button, a paragraph of text says: "Upload your 3D design and instantly see the price for your models. It's that easy." followed by a bulleted list: "• 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 photo of four people (three adults and one child) standing together. Below this is a button labeled "Sell your designs". Underneath the button, a paragraph of text says: "Want to show off your design talent and make some money at the same time? Offer your designs for sale in our gallery and once a month, we will pay you a fee for every one of your items sold." The entire page has a clean, modern design with a white background and light gray horizontal lines separating sections.

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

**s 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

**3D Print easily**  
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.  
Enter your email [OK](#)

**PARTICULE 14**  
PARTICULE 14 PROJECT FOR INTERNATIONAL DESIGN WEEK OF MILAN  
[Learn more](#)

Follow us [Facebook](#) [Twitter](#) [Google+](#)

**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.

# Inventables (USA)

**INVENTABLES®**  
The Hardware Store for Designers

Search by keyword or part number

**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



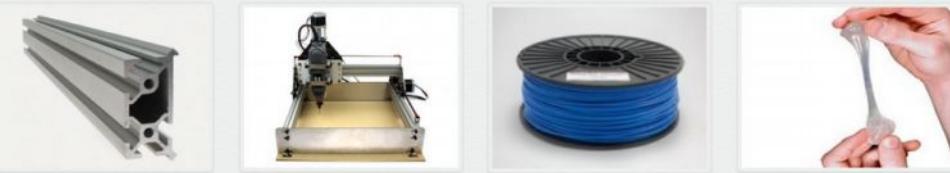
**Acrylic Sheets**  
Over 100 varieties of acrylic sheets in various colors, sizes, styles and textures.

**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, there's a navigation bar with links for HOME, BLOG, FORUMS, SUPPORT, TUTORIALS, CHAT, VIDEOS, CONTACT, JOBS, and ABOUT. A search bar is also present. The main content area features a large image of an Arduino board with an NFC/RFID shield attached, and a hand holding a small circular NFC tag. A callout box over the image reads "NFC/RFID Shield for Arduino Touchless communication!" with a "LEARN MORE" button. Below this, there's a section for "Latest blog entries" with a link to "#piday #raspberrypi @Raspberry\_Pi". The left sidebar has a "PRODUCTS" section with a "New Products [121]" heading and a detailed list of categories and sub-categories, such as "Android (6)", "Arduino (53)" (with sub-categories like "Boards & Packs [12]", "Shields [30]", "Accessories [11]"), and "BeagleBone (20)". Other sections include "Drawdio (3)", "EggBot (1)", "FLORA (18)", "FPGA (1)", "Fuzebox (3)", "littleBits (1)", "Game of Life (2)", "Microtouch (5)", "MinIPOV (3)", "MintyBoost (2)", "NETduino (12)", "Power supply (9)", "Propeller (11)", "Raspberry Pi (37)", "SIM reader (4)", "Snap Circuits (4)", "SpokePOV (10)", "TV-B-Gone (4)", "Tweet-a-Watt (5)", "XBee (10)", and "Project packs (9) RFID / NFC (12)".

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

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

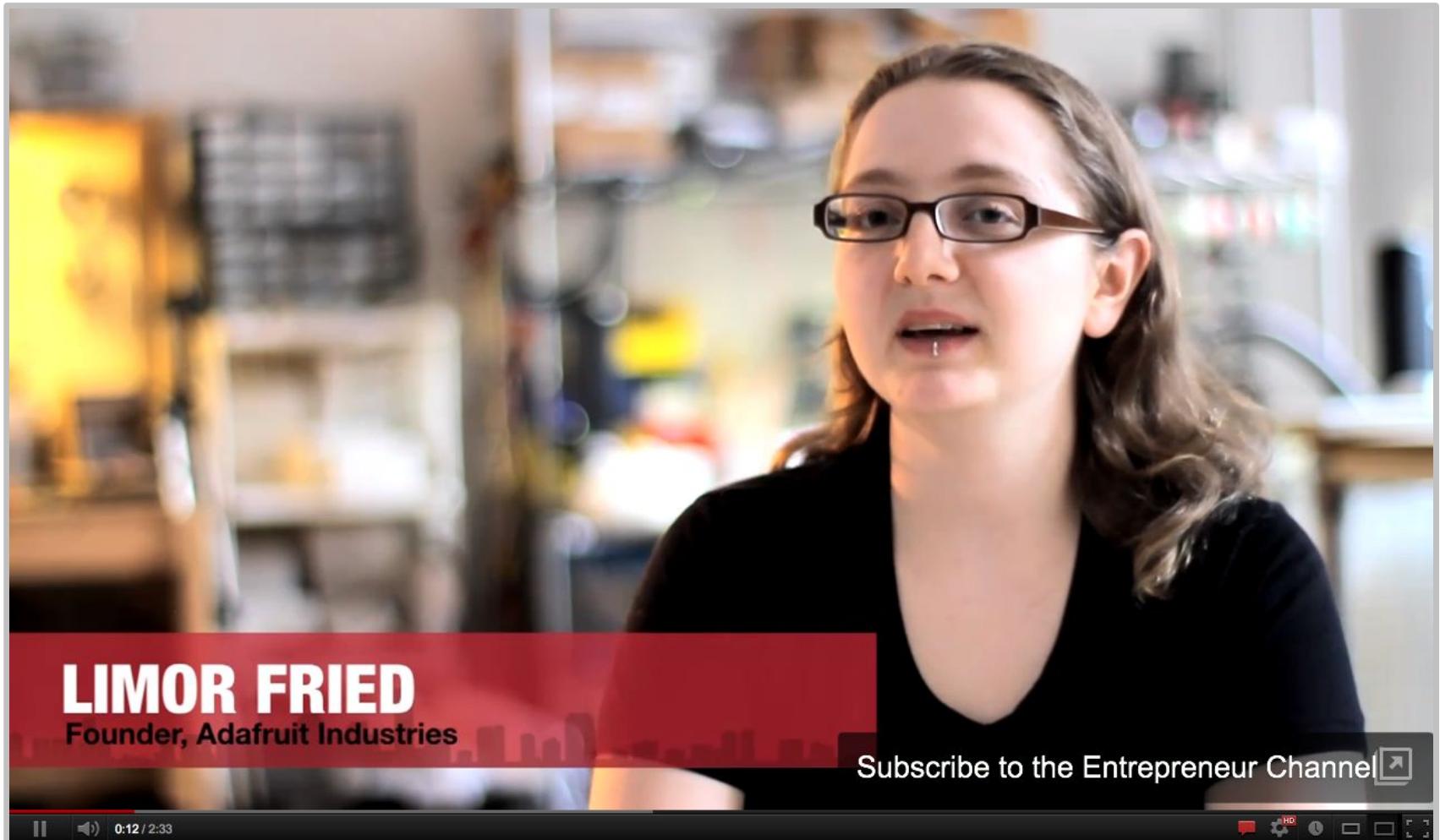
# Adafruit (USA)



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

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

# Adafruit (USA)



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

Source: <http://www.youtube.com/watch?v=qpYdt4hdEi8>

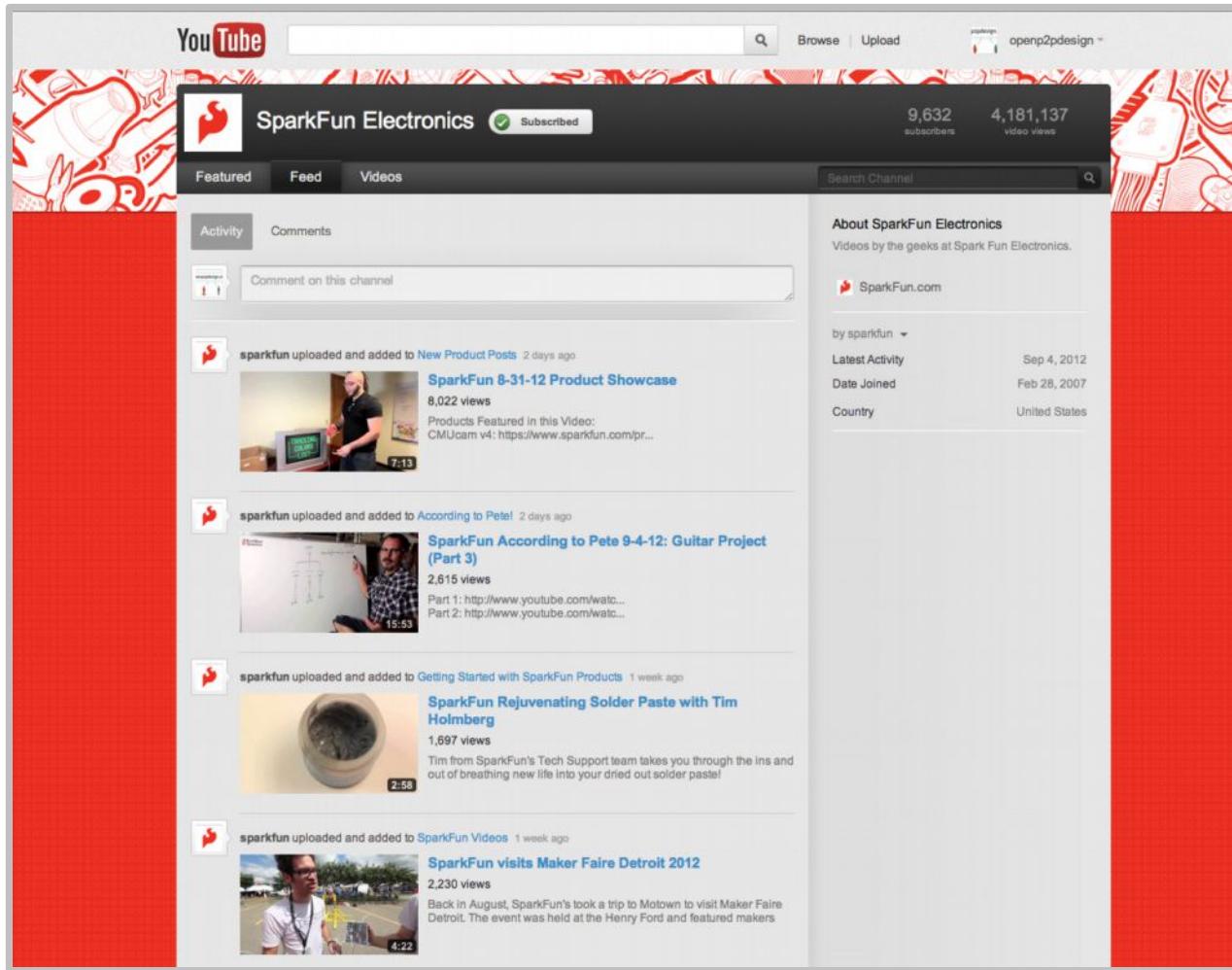
# Sparkfun (USA)

The screenshot shows the Sparkfun Electronics website. At the top, there's a navigation bar with links for Products, Support, Tutorials, Distributors, About Us, Contact, and a search bar. The main header features the Sparkfun logo and a red banner with the text "SPARKFUN APPROVED KICKSTARTERS". Below the header, there's a sidebar titled "Categories" containing links to New Products, Top Sellers, Featured Products, Gift Certificates, Classes & Events, Books, Breakout Boards, and many other product categories like Cables, Cellular, Components, Development Tools, and more. The main content area has a "Latest News" section with a post titled "AVC 2013 - The Next Chapter" by RobertC. dated September 06, 2012. The post discusses the changes to the Autonomous Vehicle Competition (AVC) for 2013. Below the news is a photograph of a person in a blue vest operating a quadcopter drone on a paved surface with yellow grid lines. To the right of the news, there are sections for "New Products" (listing an RGB LED Strip, LilyPad LED Purple, and Hook-Up Wire Assortment), "Featured Products" (listing SparkFun Projects Case, LED - RGB Diffused Common Cathode, and Hackerspace Passport), and a "What is BatchPCB?" section. The top right corner of the page shows a message about items in the cart, currency (\$ USD), and login status.

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

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

# Sparkfun (USA)



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

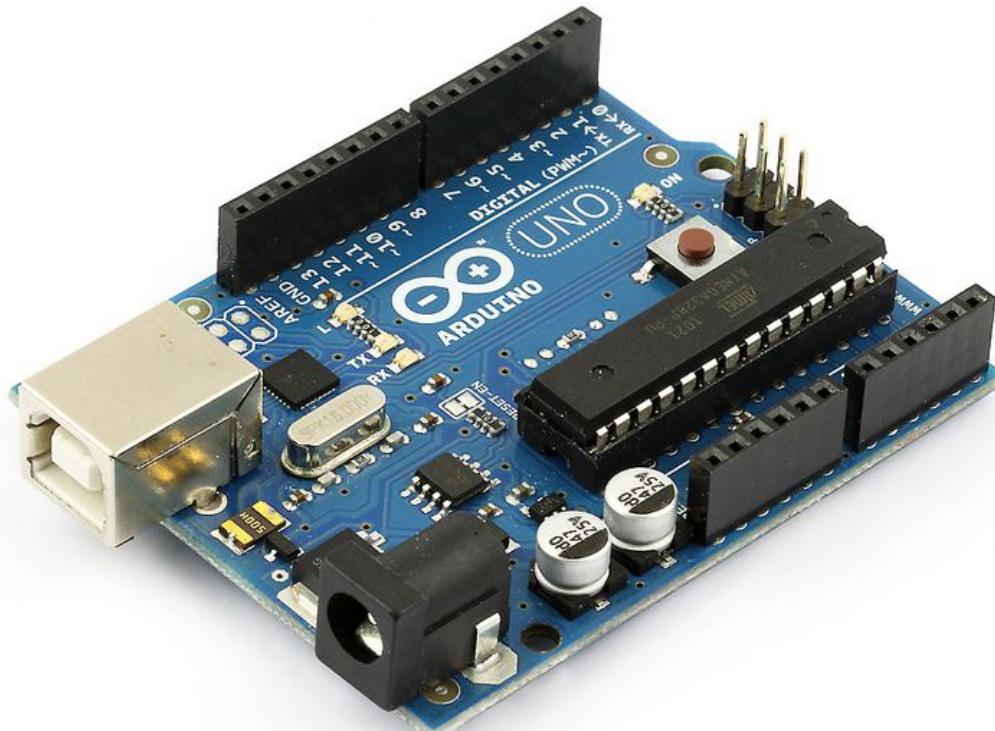
Source: [http://www.youtube.com/user/sparkfun?feature=results\\_main](http://www.youtube.com/user/sparkfun?feature=results_main)

# Sparkfun (USA)



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

# 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)



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

Source: <http://www.youtube.com/watch?v=q2dieLFR9C8> Full documentary: <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

<b>Our Simple Formula</b> 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.	<b>Creative projects only</b> 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> <b>The New York Times</b>
<b>Where does the money come from?</b> Each month millions of people visit	<b>My ideas aren't “big and important.” Is Kickstarter for me?</b> 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>

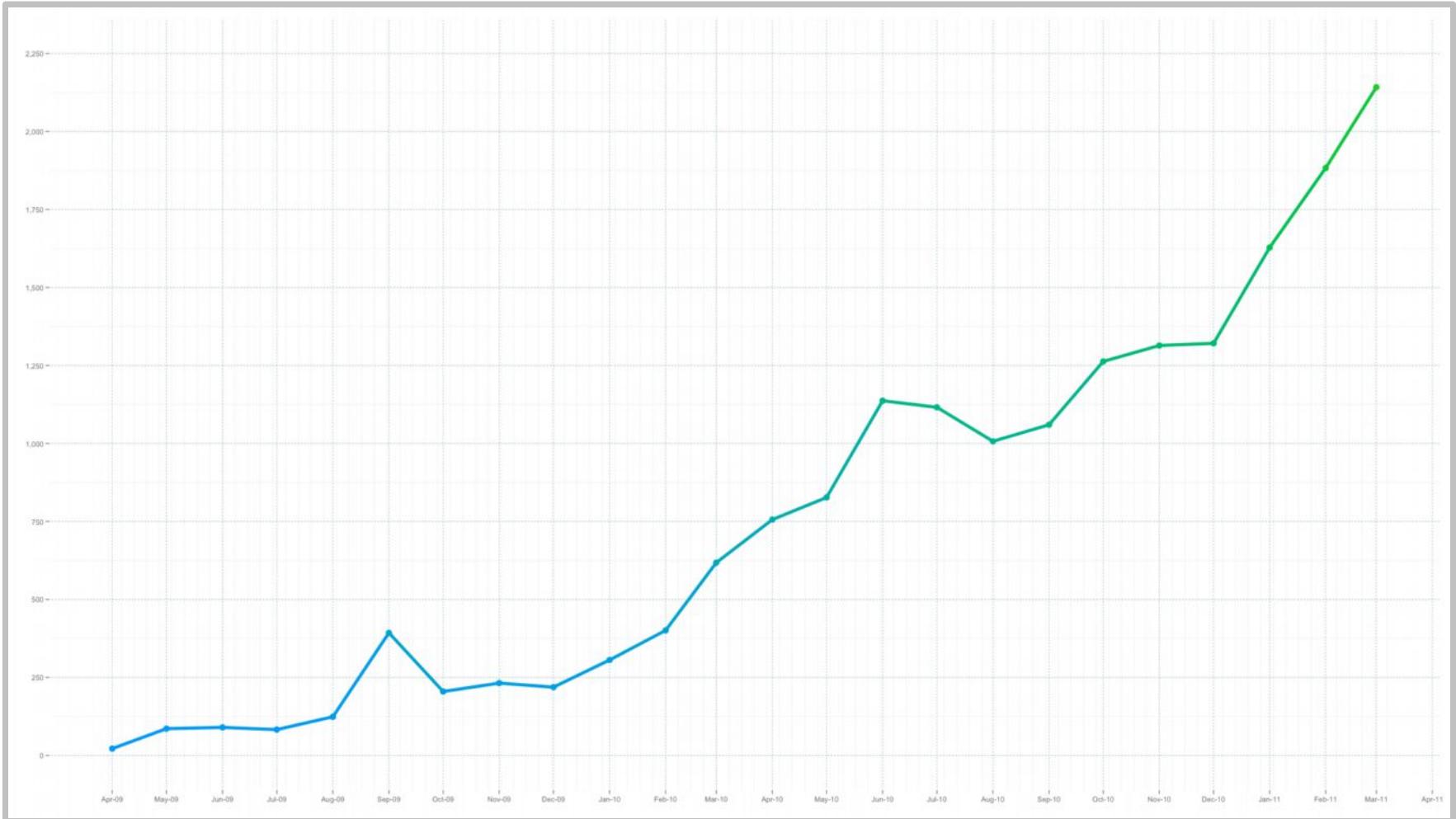
# Crowdfunding: Kickstarter



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

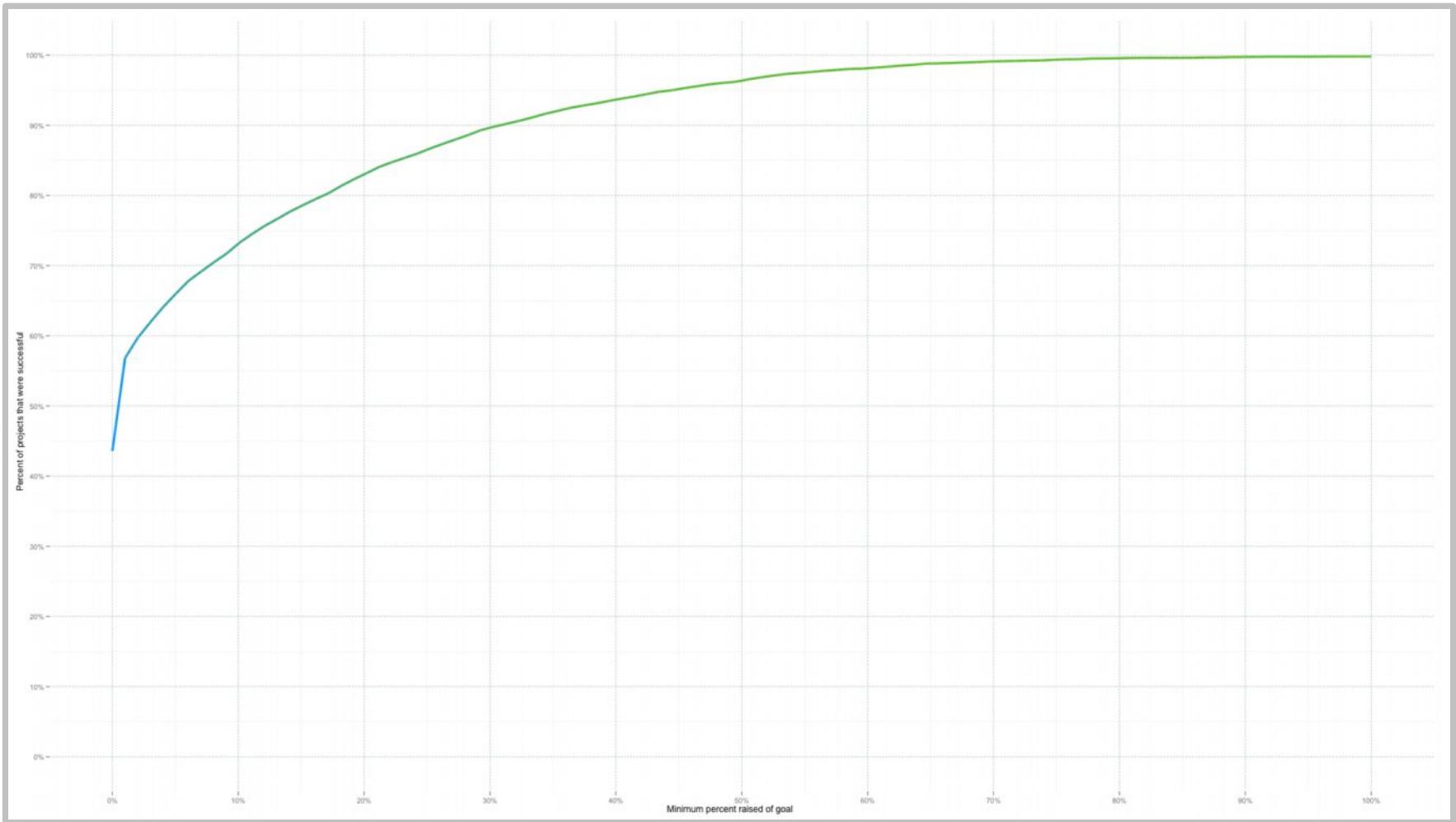
Source: <http://www.youtube.com/watch?v=lu0aNSZIsXc>

# Crowdfunding: Kickstarter



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

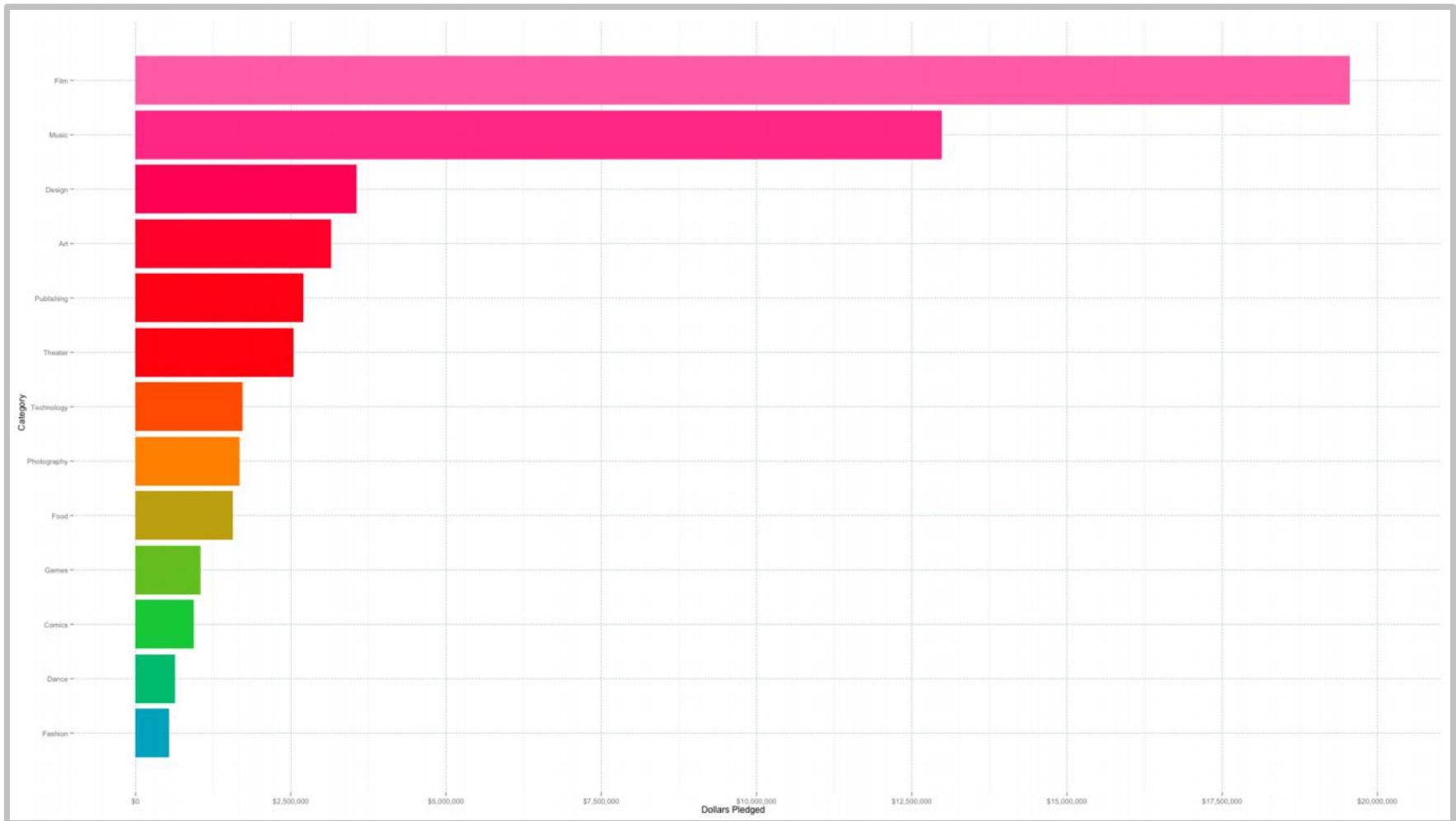
# Crowdfunding: Kickstarter



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%.

Source: <http://www.kickstarter.com/blog/happy-birthday-kickstarter>

# 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.



A photograph of a man in a dark jacket and sunglasses performing a trick on a skateboard over a large, illuminated sign that reads "KICK STARTER". The sign is mounted on a white wall. In the foreground, several silhouettes of people are watching from behind a counter. On the counter, there are various items including a smartphone displaying a video of the skateboarder, a laptop, a green mug, a yellow clock, and several small boxes or packages. Red curtains frame the background of the scene.

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 ... [VIEW CAMPAIGN ▶](#)

\$12,855 raised 4 days left

BROWSE CAMPAIGNS

LEARN HOW IT WORKS

CREATE A CAMPAIGN

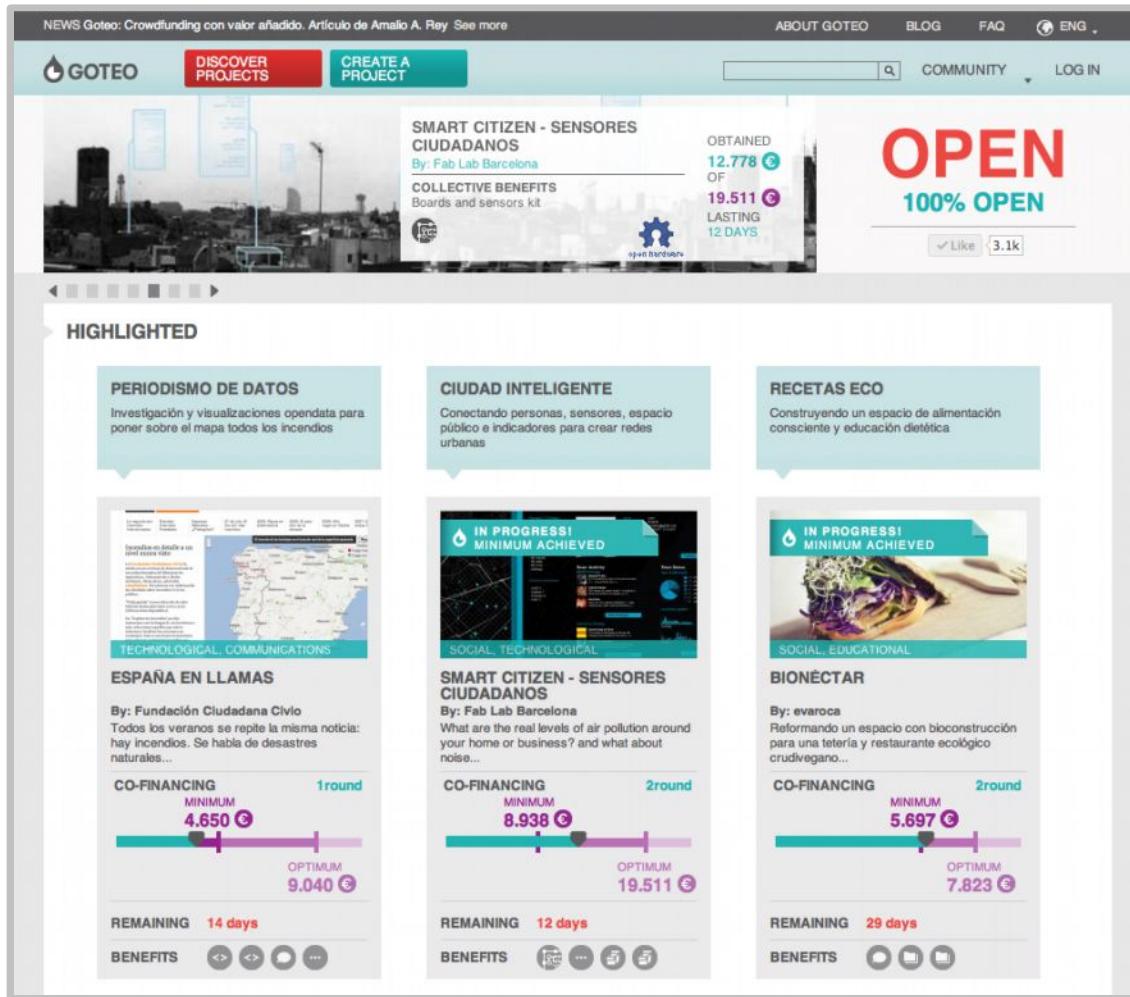
Final Countdown

Category	Campaign	Status	Funded	Raised	Time Left
SMALL BUSINESS	Mountain Rider Alliance	72% funded	\$7,230	45 hours left	
FILM	Goodbye Promise	0% funded	\$2,338	5 days left	
ENVIRONMENT	#StopMonsanto	25% funded	\$37,404	8 days left	
GAMING	Greebo: Nippo Goblin and Turtles	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.

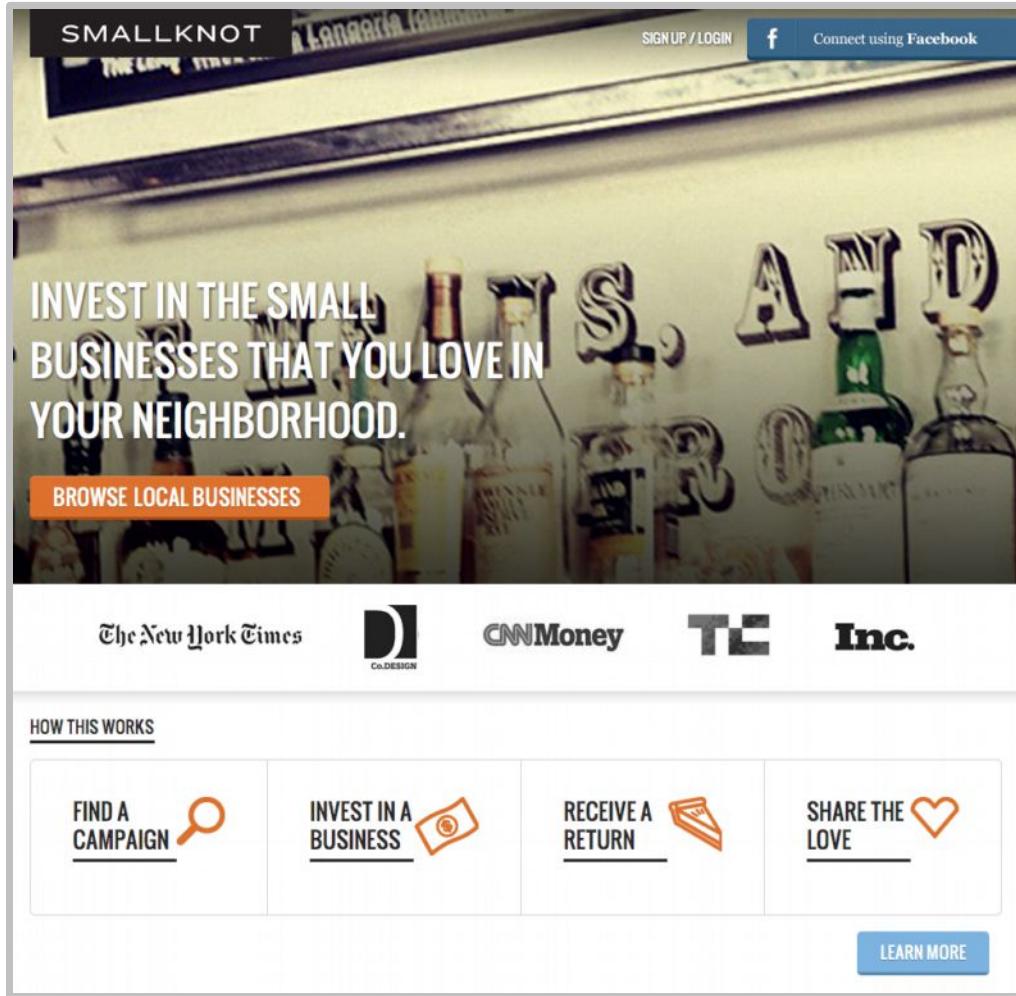
Source: <http://www.indiegogo.com/>

# Crowdfunding for Open projects: Goteo



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 local business: Smallknot



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

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

# Crowdfunding for local business: LuckyAnt

The screenshot shows the homepage of the LuckyAnt website. At the top, there's a red header bar with 'SHARE' and social media icons (Facebook, Twitter, LinkedIn). On the right, there are 'LOGIN' and 'SIGNUP' buttons. Below the header is the 'LUCKY ANT' logo, which includes a stylized ant icon. A large, colorful illustration titled 'How Lucky Ant Works' depicts a city street scene with buildings, trees, and a road. A red sign on the road says 'NO STOPPING ANYTIME'. Below the illustration is a video player showing a play button and a progress bar at '00:59'. To the right of the video player, there are 'HD' and 'vimeo' logos. Below the illustration, a red text box contains the tagline: 'Lucky Ant helps local businesses get funds to grow by turning to you, their customers, for help.' Below this text is a grey search bar with fields for 'Your Email (optional)', 'Brooklyn', 'Clinton Hill - Fort Greene', and a red 'ENTER' button. At the bottom, there are three numbered steps: 1. 'Check out the project.', 2. 'Chip In.', and 3. 'Get Rewarded!'. Each step has a brief description and some fine print.

SHARE f t in

LOGIN | SIGNUP

LUCKY ANT

How Lucky Ant Works

ONE WAY

W 45 ST

NO STOPPING ANYTIME

00:59

HD vimeo

Lucky Ant helps local businesses get funds to grow by turning to you, their customers, for help.

Your Email (optional)

Brooklyn

Clinton Hill - Fort Greene

ENTER

1. Check out the project.  
Every week we bring you a project from a business in your neighborhood that needs to be funded.

2. Chip In.  
When you see something you like, you can pledge money. Once the business reaches their goal, they will use that money to complete their project. We don't charge your card unless the business reaches its goal.

3. Get Rewarded!  
You get rewards and perks from the business that you invested in like free stuff, behind the scenes access, and VIP treatment! You also get the satisfaction of having invested in your neighborhood!

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

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

# 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 kärsvällisyystä.

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.

Source: <http://brickstarter.org/an-introduction-to-brickstarter/>

# 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.

# 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 with 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 VMware 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.

Source: <https://github.com/>

# 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. The banner also displays statistics: '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) featuring Intel and Geeknet logos, and 'Earn More on Android' with a large green Android robot icon and the airpush logo.

The main content area features a sidebar with categories like 'Audio & Video', 'Business & Enterprise', 'Communications', 'Development', 'Home & Education', 'Games', 'Graphics', 'Science & Engineering', 'Security & Utilities', and 'System Administration'. To the right, there's a 'Project of the Month' section for 'PeaZip', which is described as a free cross-platform file and archive manager utility. It includes a download button labeled 'Download PeaZip-4.3\_src.zip'. Other projects listed include 'StarUML', 'AkelPad', 'FreeCAD', and 'Lazarus', each with their respective icons and download links.

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

# GitHub as a platform: Gittip

The screenshot shows the Gittip website interface. At the top, there's a logo with a heart icon and the word "Gittip" next to it, followed by "Personal Funding". A "Sign in using GitHub" button is on the right. Below the header, a banner says "Set up recurring gift tips to people who make the world better. [Learn more ...](#)". The main area has a heading "Tip someone!" and a search bar with placeholder "Enter a GitHub username:" and a "Go" button. Below this is a "Leaderboard" section with a link to "Unclaimed". There are two tables: "Top Givers" and "Top Receivers", each listing 10 users with their names and the amount they've received.

Rank	Amount	User
1.	\$ 83.00	anonymous
2.	\$ 68.41	<a href="#">whit537</a>
3.	\$ 68.00	<a href="#">martindale</a>
4.	\$ 67.00	<a href="#">bruceadams</a>
5.	\$ 66.00	<a href="#">campadrenalin</a>
6.	\$ 50.00	<a href="#">mtamizi</a>
7.	\$ 45.00	<a href="#">joetyson</a>
8.	\$ 36.00	<a href="#">workforpie</a>
9.	\$ 33.25	<a href="#">wraithan</a>
10.	\$ 25.00	anonymous

Rank	Amount	User
1.	\$ 169.80	<a href="#">whit537</a>
2.	\$ 71.39	<a href="#">jnoller</a>
3.	\$ 58.63	<a href="#">alex</a>
4.	\$ 56.79	<a href="#">mitsuhiko</a>
5.	\$ 47.87	<a href="#">kennethreitz</a>
6.	\$ 46.48	<a href="#">steveklabnik</a>
7.	\$ 37.50	<a href="#">zzzeek</a>
8.	\$ 31.74	<a href="#">visionmedia</a>
9.	\$ 30.32	<a href="#">antirez</a>
10.	\$ 29.57	<a href="#">jezdez</a>

**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.

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

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

# GitHub: Goteo as open source Crowdfunding

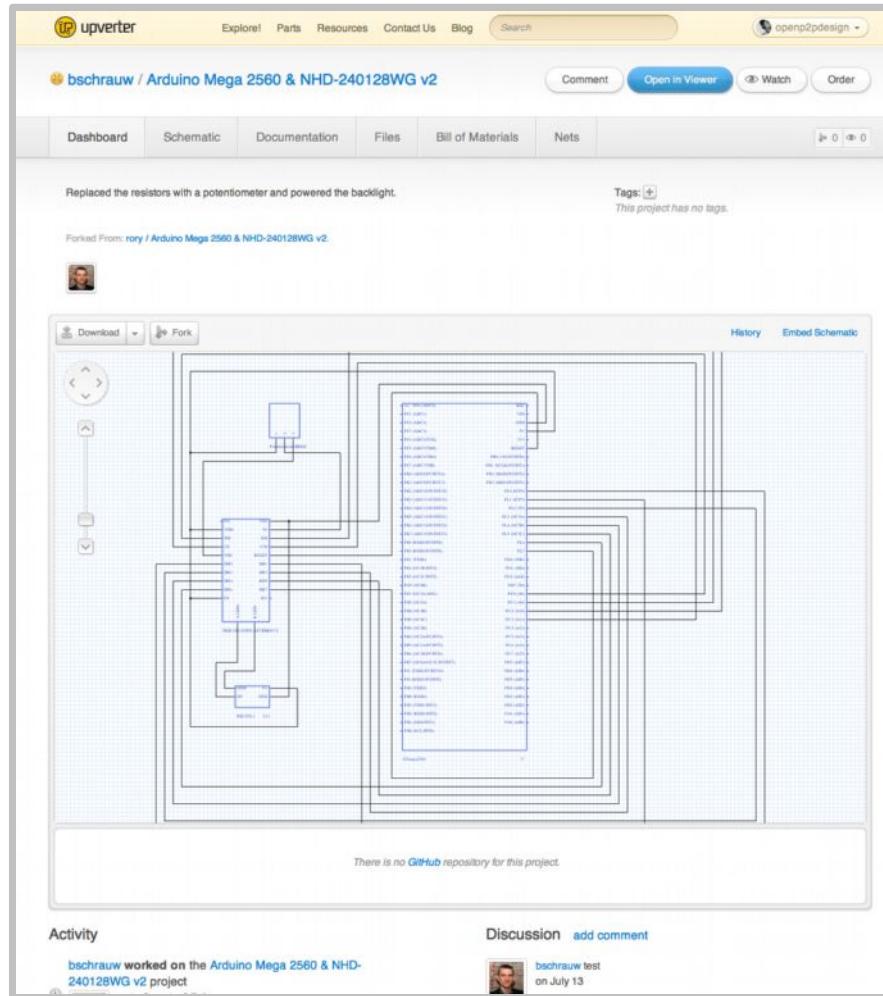
The screenshot shows the GitHub repository page for 'Goteo / Goteo'. The repository is public and has 8 issues and 14 forks. The 'Code' tab is selected, showing a note about the code being released under the terms of goteo.org. Below this are download options (Clone in Mac, ZIP, HTTP) and the repository URL (https://github.com/Goteo/Goteo.git). The 'Read-Only access' button is also visible. The commit history table lists various files and their last update times and descriptions. A recent commit by 'Goteo' is highlighted.

name	age	message
controller	3 months ago	Controllers [Goteo]
core	3 months ago	The core files [Goteo]
data	3 months ago	Default images [Goteo]
db	a month ago	Script with texts and translations up to date. Not included in goteo.... [Goteo]
doc	2 months ago	A brief installation guide [Goteo]
library	3 months ago	Various code libraries [Goteo]
logs	3 months ago	The main files: dispatcher, config, htaccess and logs folder [Goteo]
model	3 months ago	Models [Goteo]
view	3 months ago	Views: html, css, js and assets [Goteo]
.htaccess	3 months ago	The main files: dispatcher, config, htaccess and logs folder [Goteo]

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

Source: <https://github.com/Goteo/Goteo>

# 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>



Aalto University  
Media Factory

03.

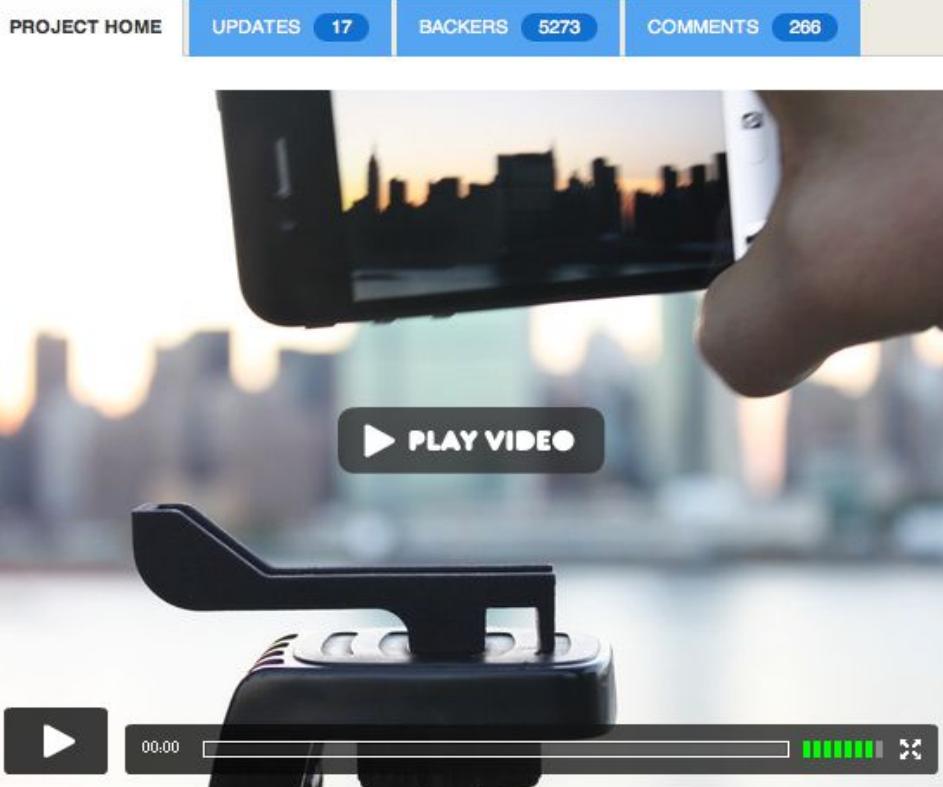
# The business of Digital Fabrication, Open Design and DIY

# And designers can be entrepreneurs

## Glif - iPhone 4 Tripod Mount & Stand

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

1



**5,273**

BACKERS

**\$137,417**

PLEDGED OF \$10,000 GOAL

**0**

SECONDS TO GO

**FUNDING SUCCESSFUL**

This project successfully raised its funding goal on November 2. ✓

**PLEDGE \$5 OR MORE**

The sweet, sweet satisfaction of contributing to an awesome project. Plus,

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-toasthed-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

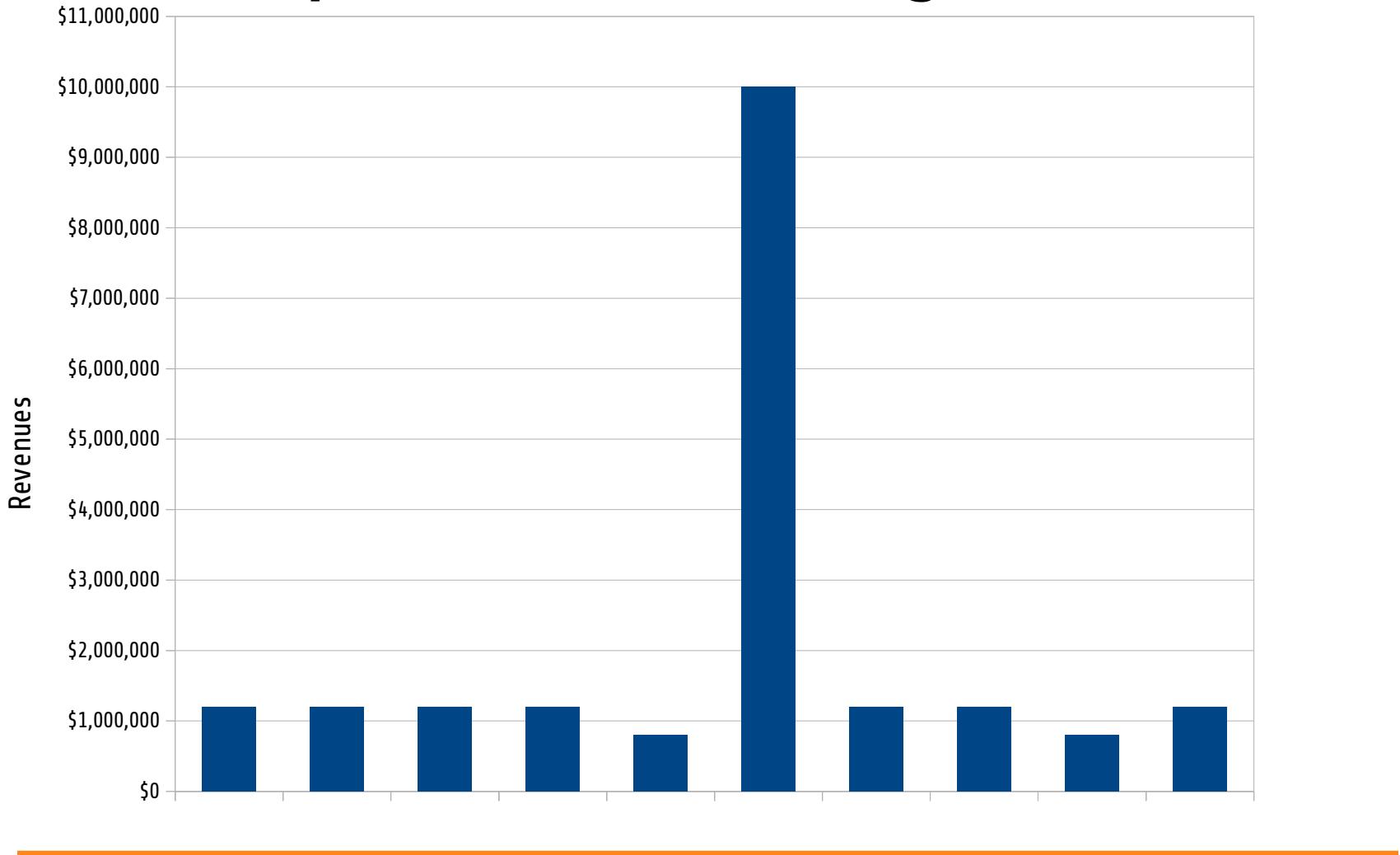


Design	Amount Raised	Author
Cargo Flight for UNICEF	\$300,000	by Justin & Christine Gignac
100 Metric Tons Of Corn Soy Blend for UNICEF	\$75,000	by Justin & Christine Gignac
Motorbike for UNICEF	\$3,064.82	by Justin & Christine Gignac
Emergency Tent for UNICEF	\$1,939.96	by Justin & Christine Gignac

... 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>

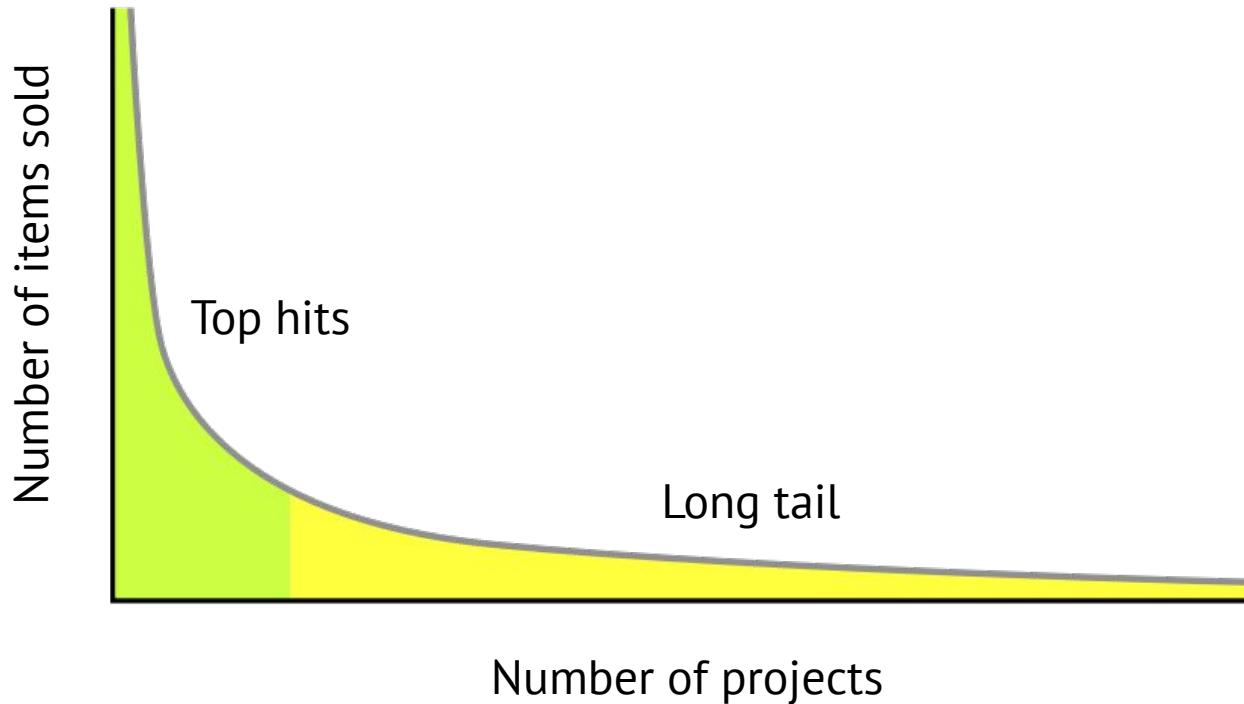
# SparkFun



*“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...

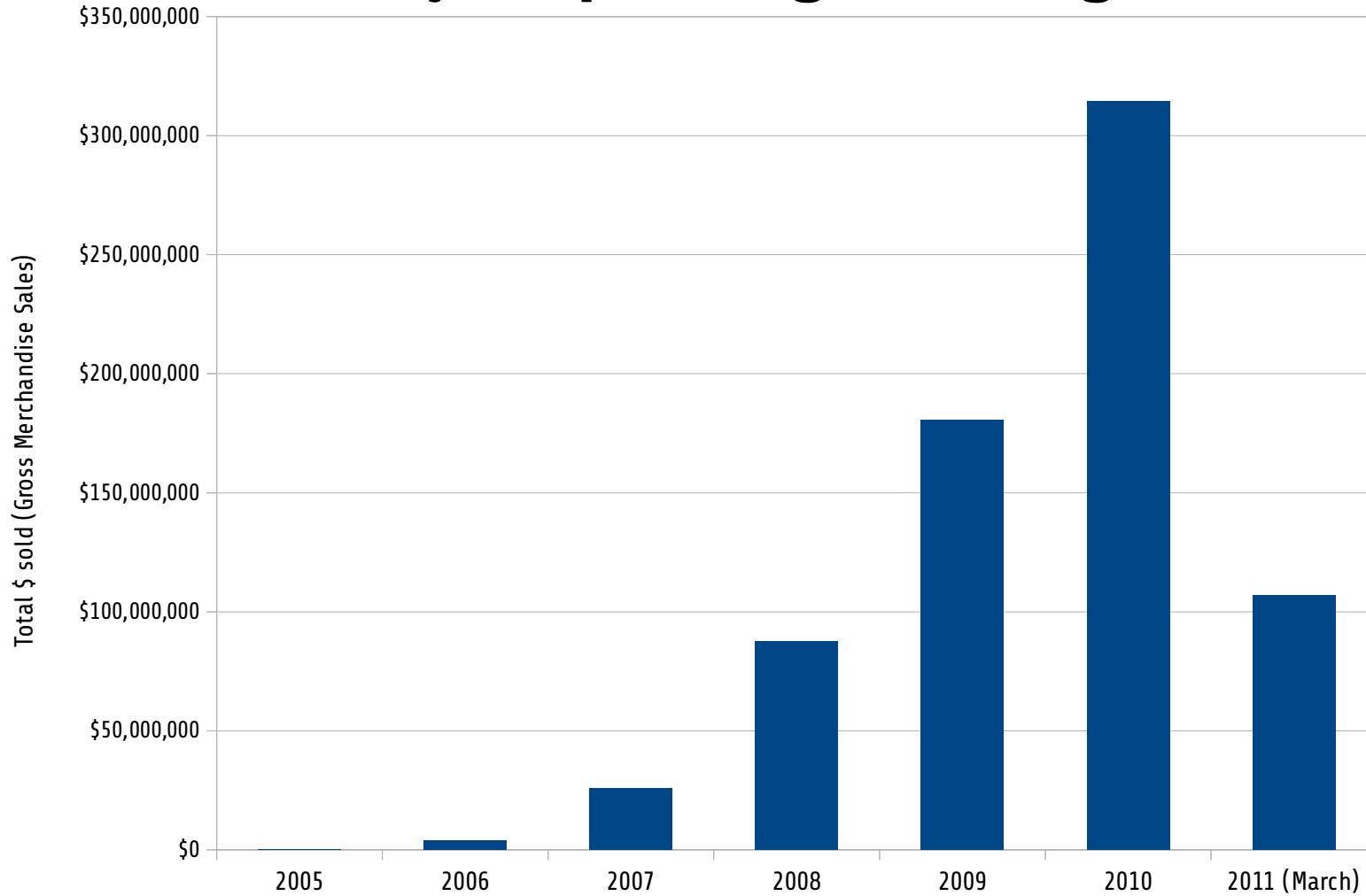


---

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

Source: [http://en.wikipedia.org/wiki/Power\\_law](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

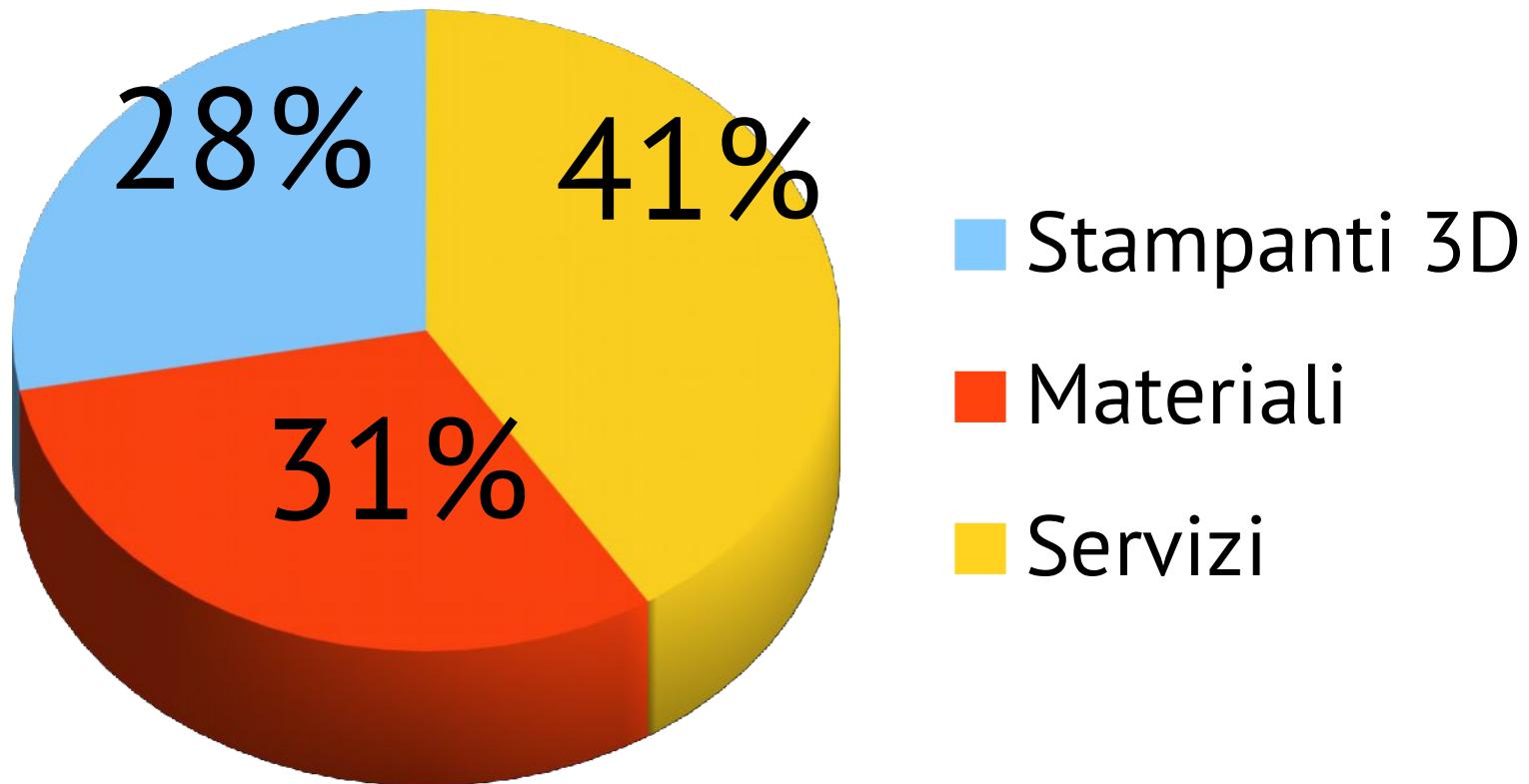
# Big corporations: 3D Systems

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 handheld 3D printer. The word "Liberate" is overlaid on the image, with the tagline "Innovation that empowers ... complete freedom of design" and 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 a "Corporation Acquisition Completed!" with a link to learn more. The News section has a heading "Endless applications flexibility from a single source! 3D Systems - Create with Confidence". Below these are thumbnails for various industry applications: Transportation (car), Energy (wind turbines), Consumer Products (smartphone), Recreation (bicycles), Healthcare (doctor with syringe), and Education (two students at a computer). At the bottom, there are links to Home, Contact, Sales Terms, Terms And Conditions, Privacy Statement, and Investor Relations. Social media icons for RSS, Facebook, YouTube, Twitter, LinkedIn, and Google+ are also present, along with a page number indicator (20).

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



---

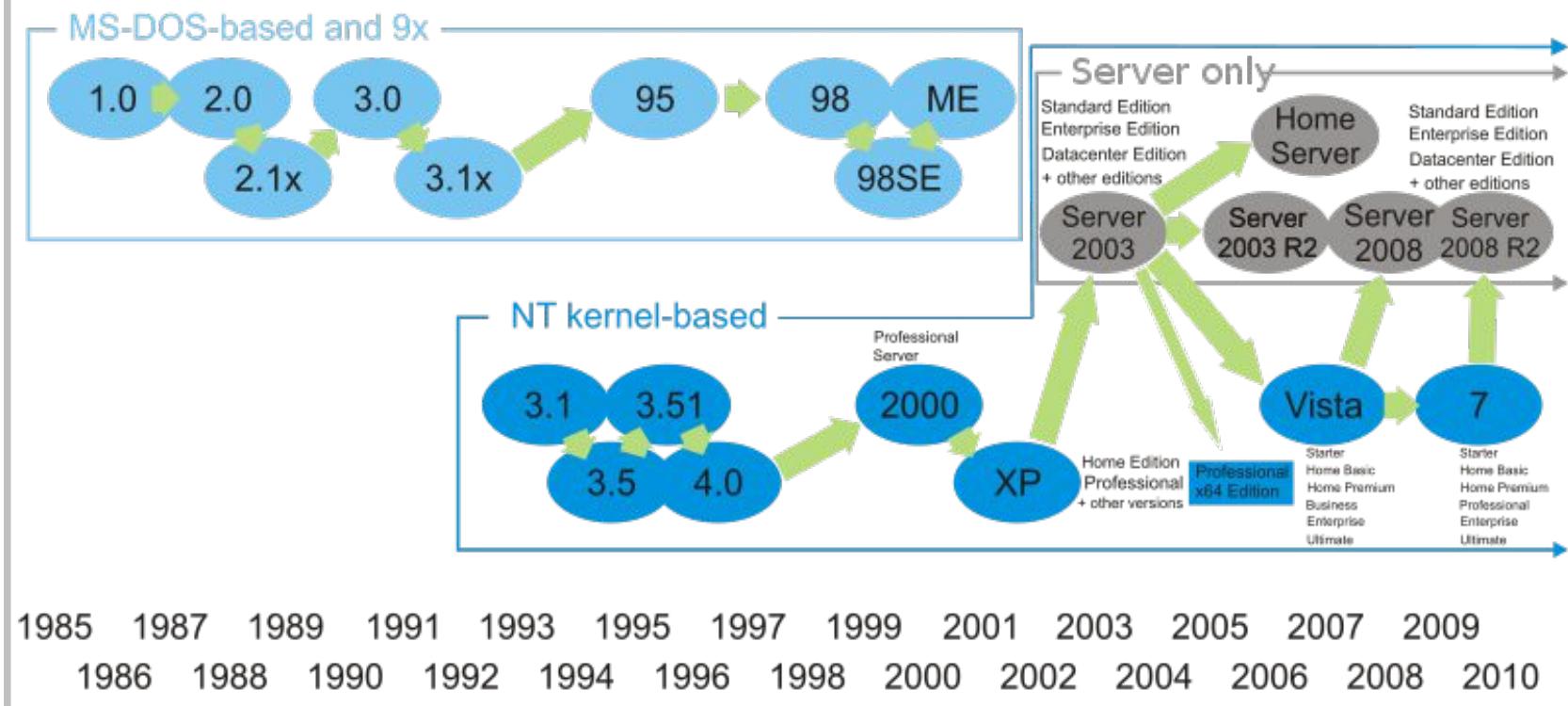
There are many ways for making money with  
digital fabrication...

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](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 (microtecnologias.cl)

Additional info: distrowatch.com/wikipedia.org

# An open innovation system



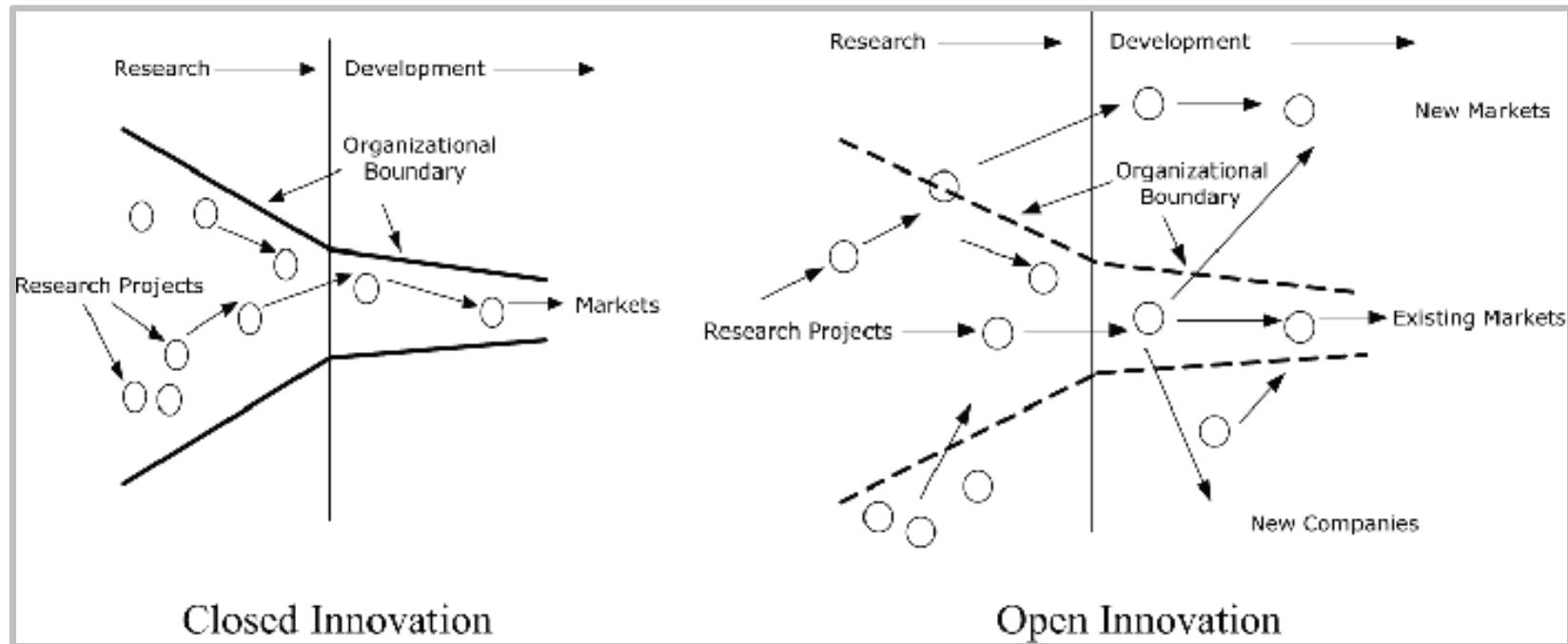
GNU/Linux

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

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

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

# 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
-

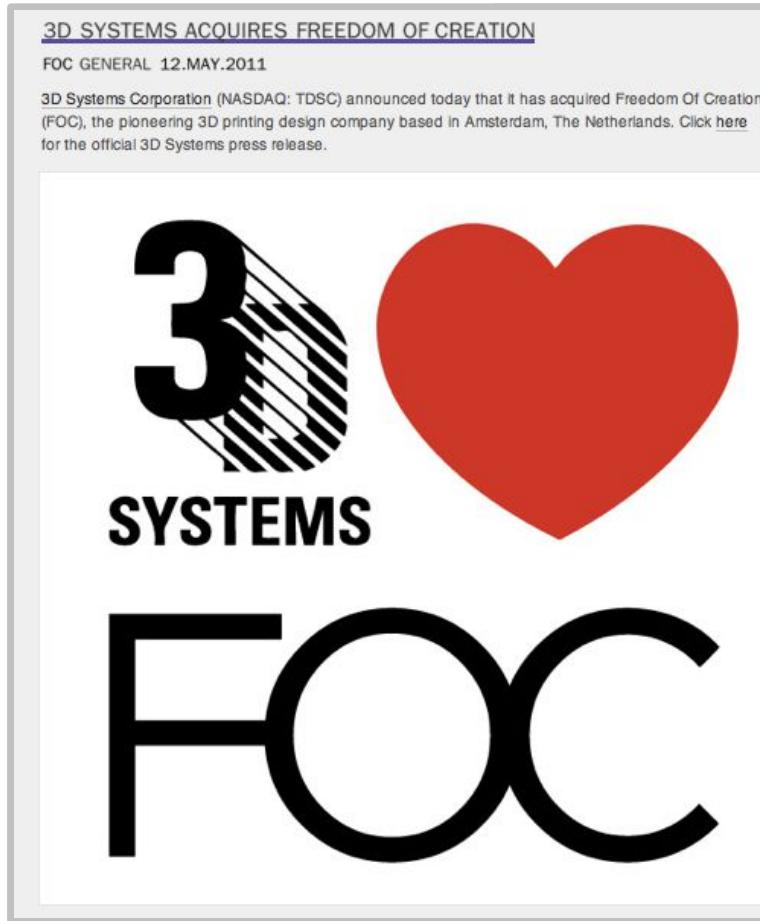
# Manufacturing and Design, becoming commodities

- \* ('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

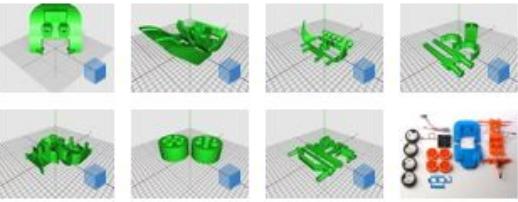
Featured on Nov 25, 2011

Order the Botmobile Kit from the MakerBot Store at [store.makerbot.com/makerbot-botmobile.html](http://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=JLjXWzTfZTc](http://www.youtube.com/watch?v=JLjXWzTfZTc)



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 grid of images demonstrating various 3D designs and prints, including a motorcycle engine, a green car model, and a blue truck chassis. To the right, there are several promotional boxes: one for "3D & 2D CAD Software" (described as professional and inexpensive), one for "3D Printers" (offering personal and professional printers starting at \$1699), one for "CAM Software" (described as completely integrated into their CAD software), one for "User Gallery & Community" (encouraging users to see what others are making), and one for "CAD for Hobbyists" (described as powerful, inexpensive, and perfect for home users). A banner at the bottom left promotes "3D CAD Software" as comprehensive for design, simulation, rendering, and more.

**Alibre**

877.525.4273  
Sales@Alibre.com

3D Software ▾ 3D Printers ▾ Downloads Training & Support Successes How to Buy ▾

**3D CAD Software**  
Comprehensive 3D & 2D Design, Simulation, Rendering, and more... >

**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 2.3 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](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**

---

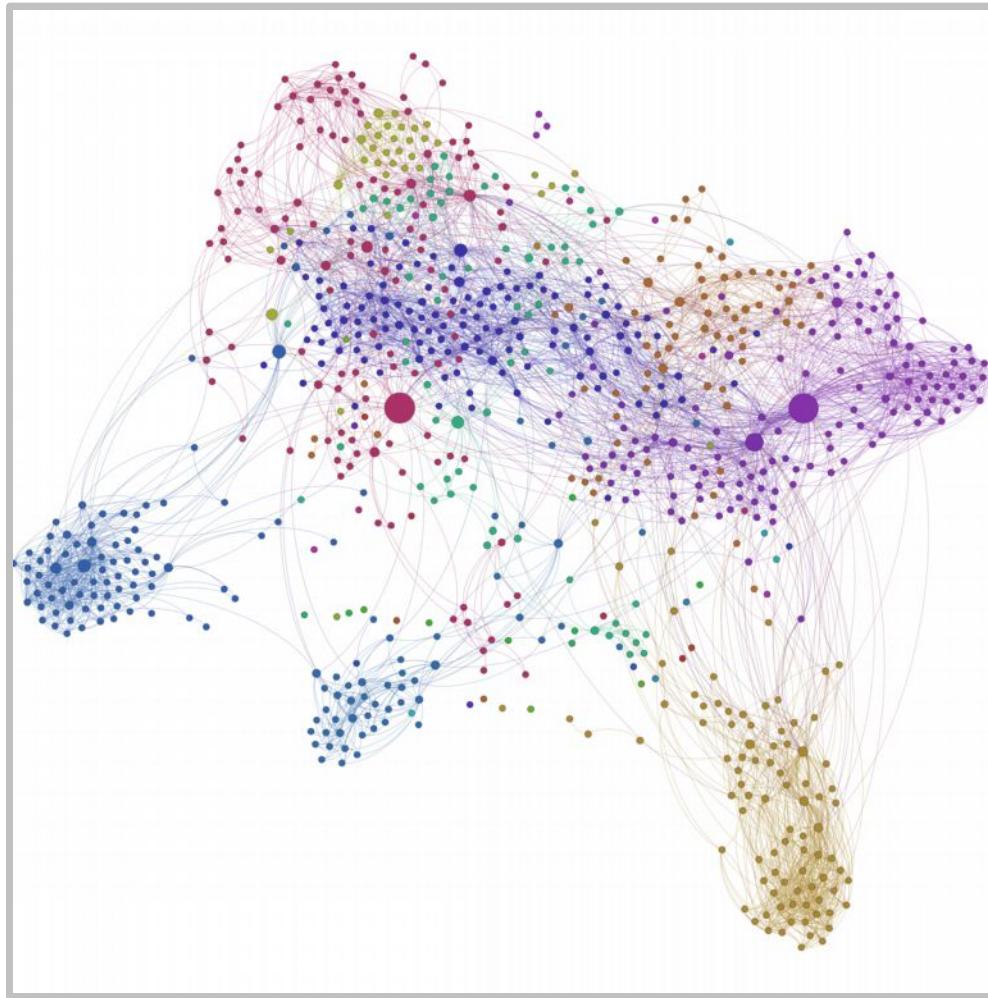
# A gift economy



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](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](http://en.wikipedia.org/wiki/Gift_economy)

# Business models of Open Source (software)

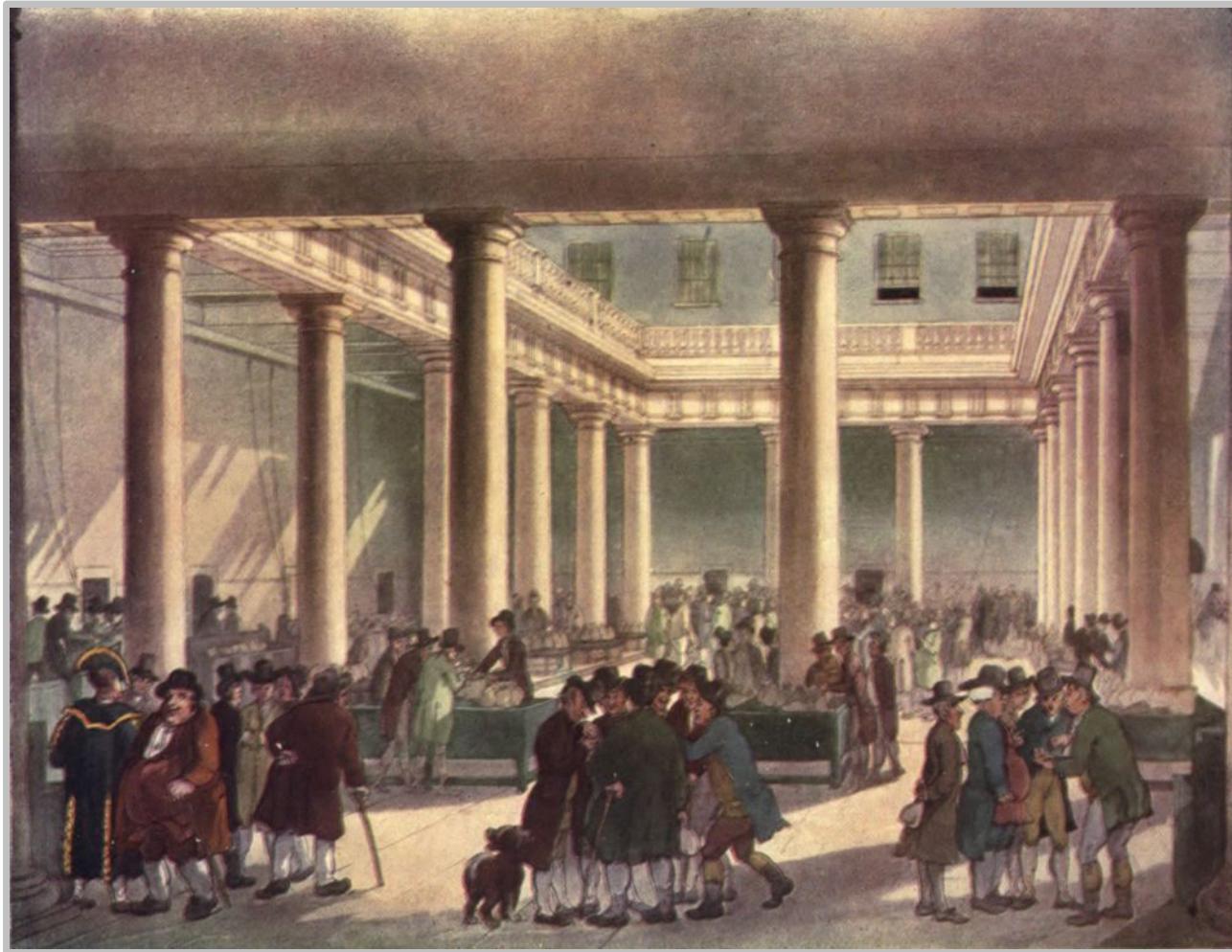
## Monetary incentives:

- \* 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) [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/](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](http://www.linuxfoundation.org/sites/main/files/publications/estimatinglinux.html)

---

# Note: Open Business is not completely open

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



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

# 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.

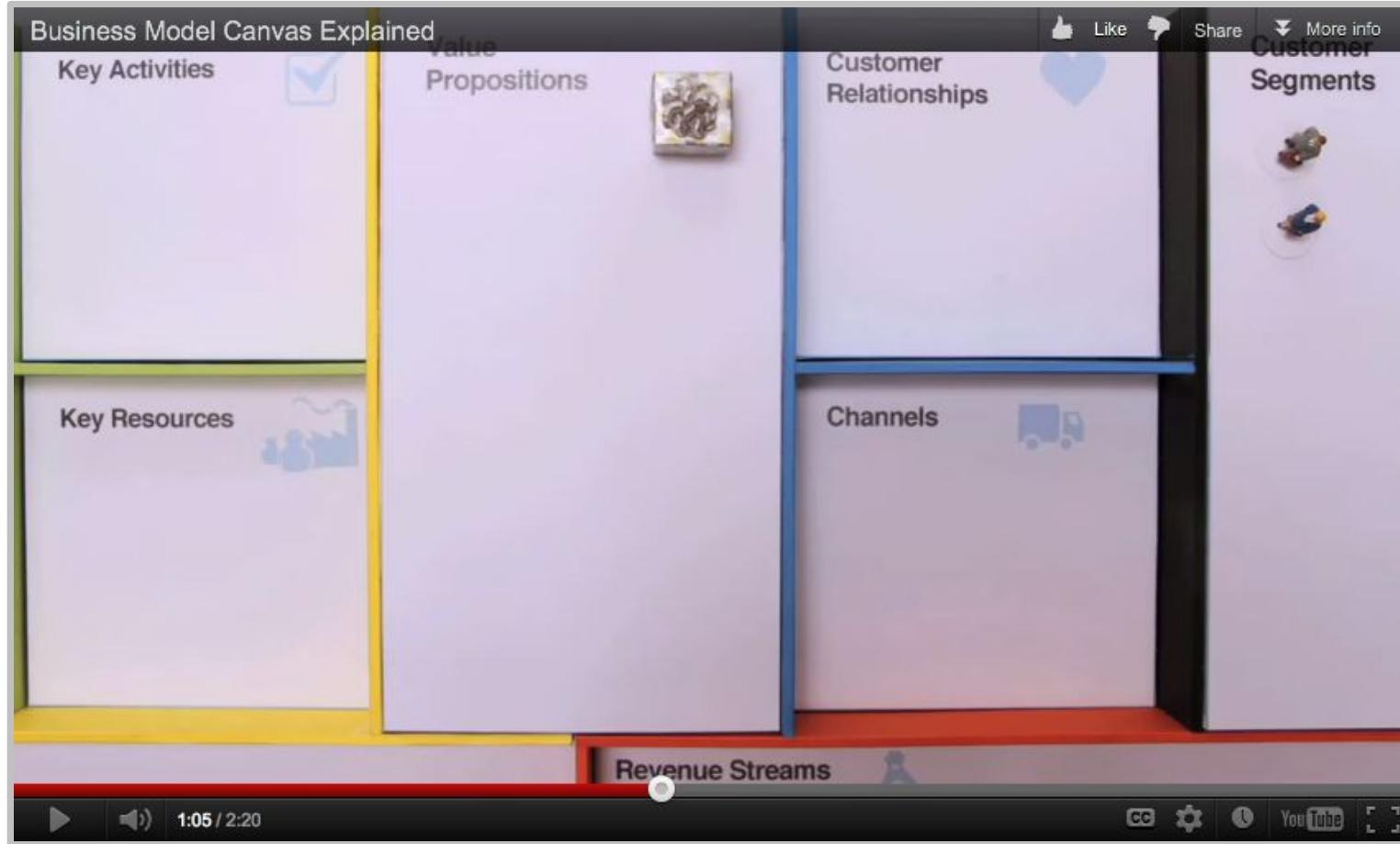
---

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

# 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 Model Canvas: prototype



Not a business plan, no numbers, don't worry:  
prototype ideas!

Source: <http://www.businessmodelgeneration.com/canvas> <http://youtu.be/QoAOzMTLP5s>  
[http://en.wikipedia.org/wiki/Business\\_Model\\_Canvas](http://en.wikipedia.org/wiki/Business_Model_Canvas)

# 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 flask character 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 green and "SAVE OR SHARE!" in pink. In the top right corner is a yellow speech bubble containing the text "CREATE HACK GROW". The main title "Discover Electronics!" is prominently displayed in large, colorful letters (pink to orange gradient). Below the title is a section titled "Learn to make your own circuits." with a descriptive paragraph about the kit's purpose and contents. To the right of this text is a 3D rendering of 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 of the breadboard is the "sparkle labs" logo featuring the flask character again.

**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 job board section. At the top, there's a navigation bar with links for HOME, BLOG, FORUMS, SUPPORT, TUTORIALS, CHAT, VIDEOS, CONTACT, and JOBS. The main content area has a sidebar on the left titled "JOBS BOARD" containing categories like CAD & 3D modeling, Art & Design, Burning Man, Engineering, Installations, Instruction and teaching, IT, Manufacturing, Photography, Production, and Programming. Below this are links for All Listings, All Full Time, All Part Time, All Contract, and All Services Offered. There are also buttons for Post a New Job and Post Skills Offered. A search bar at the bottom of the sidebar includes a placeholder "Search for a job:" and a "search" button. The main content area has a header "JOBS" and a welcome message: "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." It also notes that it's a free service provided by Adafruit, and users need to be a customer to post job offers or skills. A beta note says "We're currently in beta, please let us know if there are any issues you use the site. Thank you and happy connecting!" The main content is divided into three columns: "Featured Jobs" (listing positions like Engineering Manager, Embedded Linux Developer, Reliability Engineer (EE), Photographer, User Researcher, and Firmware/software developer), "Most Recent" (listing positions like Systems Administrator, Mechatronics/Manufacturing Fellow, Product Design Fellow, and Product Development Lead), and "Most Applied To Jobs" (listing positions like Documentation/Tutorial Freelancer, SMD PCB Assembly contract, and Prototyper / Circuit and Product Design contract). Each listing includes the job title, type (full-time, part-time, contract), employer, location, and application count.

**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 you use the site. Thank you and happy connecting!

**Featured Jobs**

**Engineering Manager** full-time at Parallax Inc. in Rocklin, CA

**Embedded Linux Developer** full-time at Bug Labs in New York

**Reliability Engineer (EE)** full-time at Solectria Renewables in Boston, MA

**Photographer** skills offered at John De Cristofaro in New York-New Jersey Metro Area

**User Researcher** full-time at Synaptics in Santa Clara, CA

**Firmware/software developer**

**Most Recent**

**Systems Administrator** part-time at SVA MFA Interaction Design in New York  
25-05-2011

**Mechatronics/Manufacturing Fellow** contract at Driptech, Inc. in Mountain View, CA and China  
19-05-2011

**Product Design Fellow** contract at Driptech, Inc. in Mountain View, CA and Pune, India  
19-05-2011

**Product Development Lead** full-time at Driptech, Inc. in Pune, India  
19-05-2011

**Most Applied To Jobs**

**Documentation/Tutorial Freelancer** part-time at Seeed Studio, Anywhere  
27 applicants

**SMD PCB Assembly** contract at Starlino Electronics, Anywhere  
22 applicants

**Prototyper / Circuit and Product Design** contract at HCX in New York  
12 applicants

Offering free services for building a greater user base.

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

# The business models of Open Hardware



**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

# 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 grid of dark circles connected by lines, resembling a circuit board or network nodes. Next to it is a stylized illustration of a person standing next to a brown cardboard box, with a speech bubble above them containing the word "Ours!". To the right of the illustration, the words "communal knowhow" are written in a large, light font. Below this section, a text box contains the following paragraph:

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

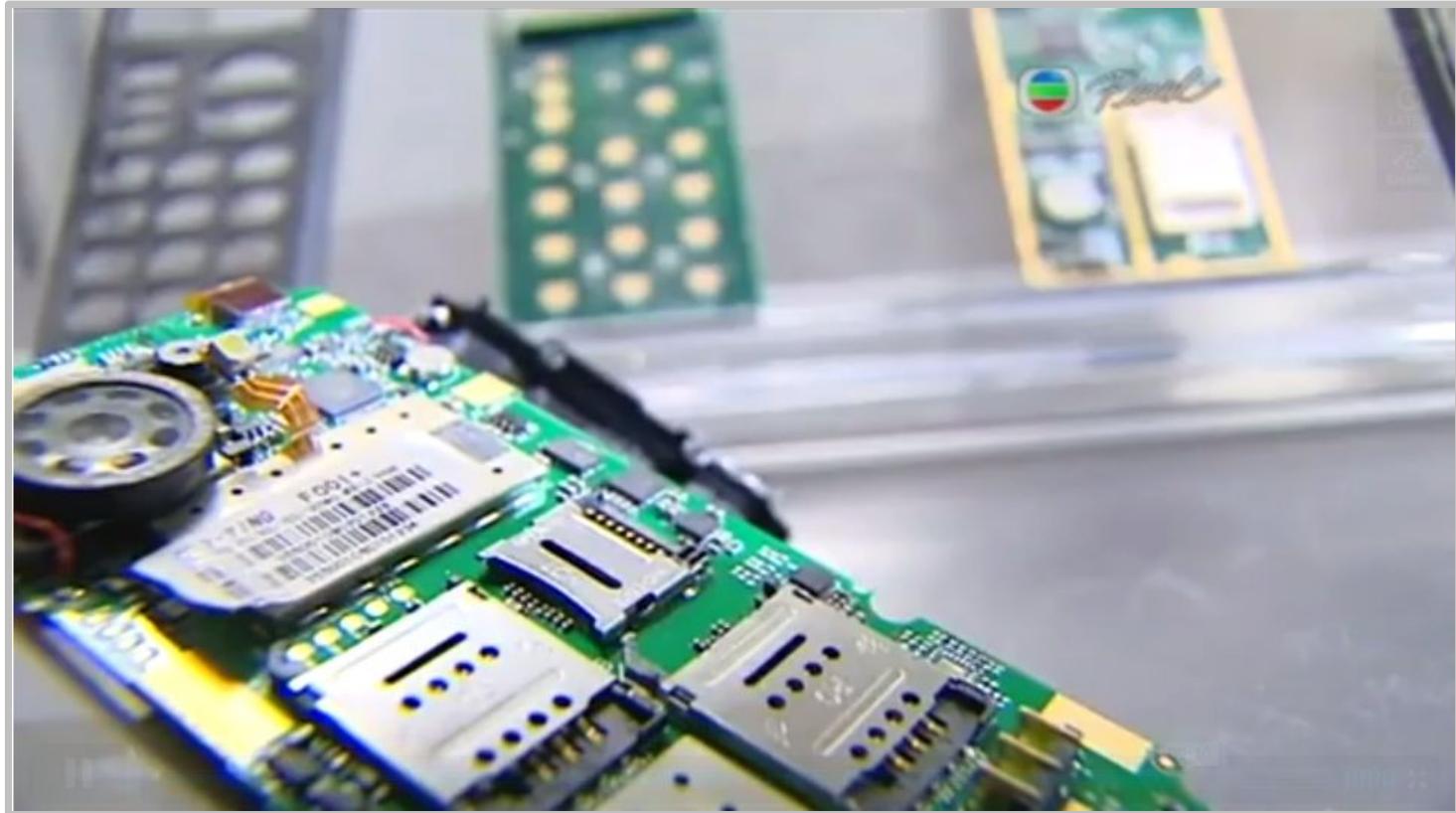


---

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<sup>cc</sup>**  
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



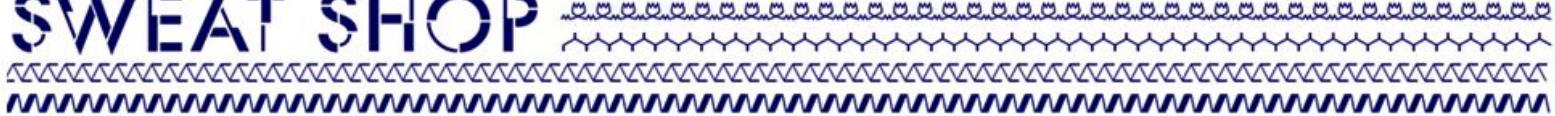
---

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**



**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'. To 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/](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=Um630Qz3bjo>

# 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/](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.

---

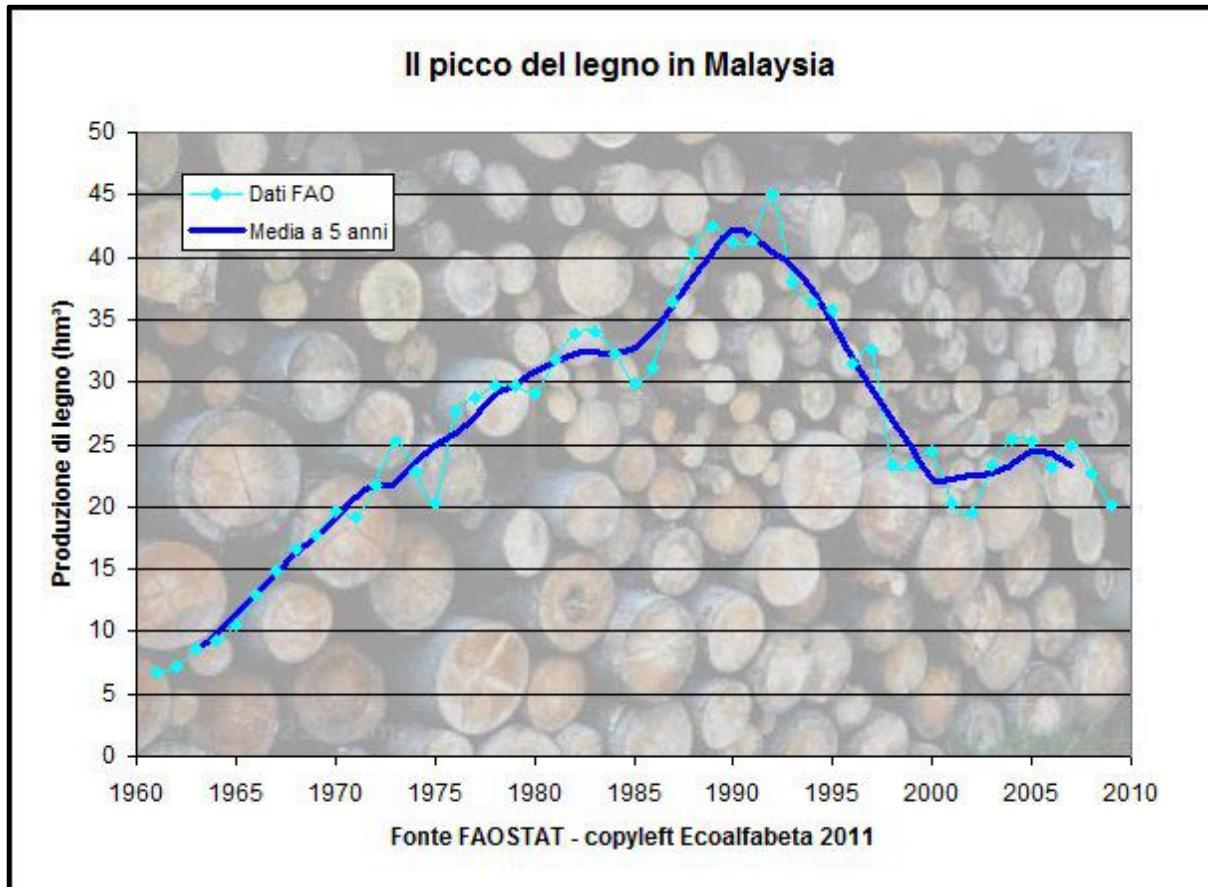
# ... and a lesson from the past



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](http://en.wikipedia.org/wiki/Henry_Ford)

# When everything is peaking...



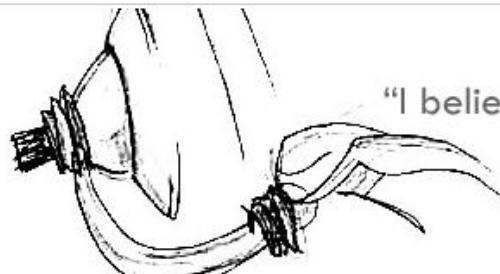
Even renewable resources like wood are peaking.. What and how are we going to manufacture when everybody will be able to do it?

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**

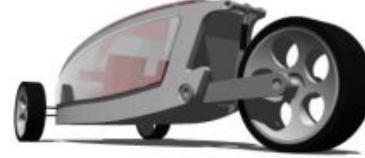
**Oscar - Release 0.2**

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?](#)

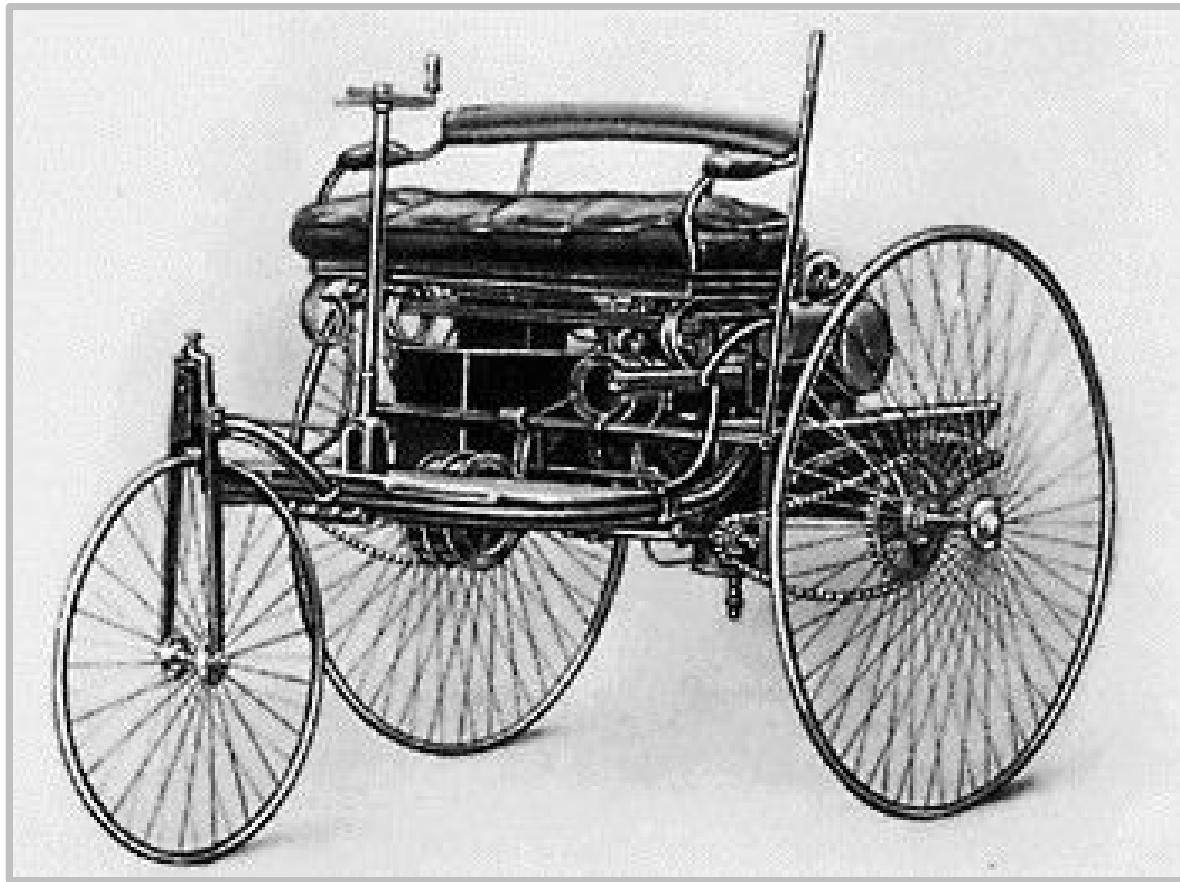
No account yet? [Register](#)

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

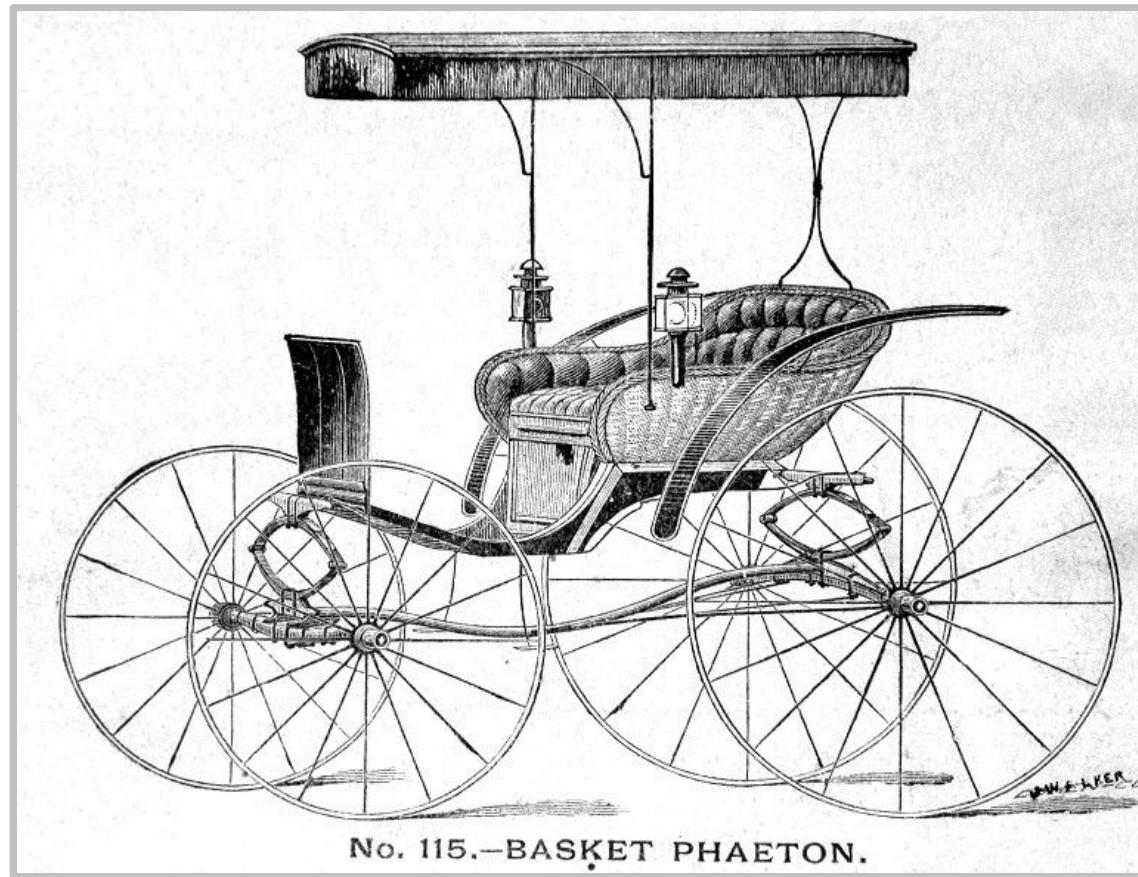


---

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

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

# 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 for **design, energy, materials, tools**
  - \* open business that consider information as **abundant** but materials and energy as **scarce resources**
  - \* open money (but well designed and **linked to energy and materials**)
  - \* **API** and **Open Data** between open businesses
  - \* **Open processes + distributed testing** of business models
-

# Business Model Design (democratized)

You're holding a handbook for visionaries, game changers, and challengers striving to defy outmoded business models and design tomorrow's enterprises. It's a book for the...

# Business Model Generation

WRITTEN BY  
Alexander Osterwalder & Yves Pigneur

CO-CREATED BY  
An amazing crowd of 470 practitioners from 45 countries

DESIGNED BY  
Alan Smith, The Movement

A detailed illustration of a business model canvas showing various components like market segments, value propositions, and revenue streams.

Systematically understand, design & differentiate your business model.

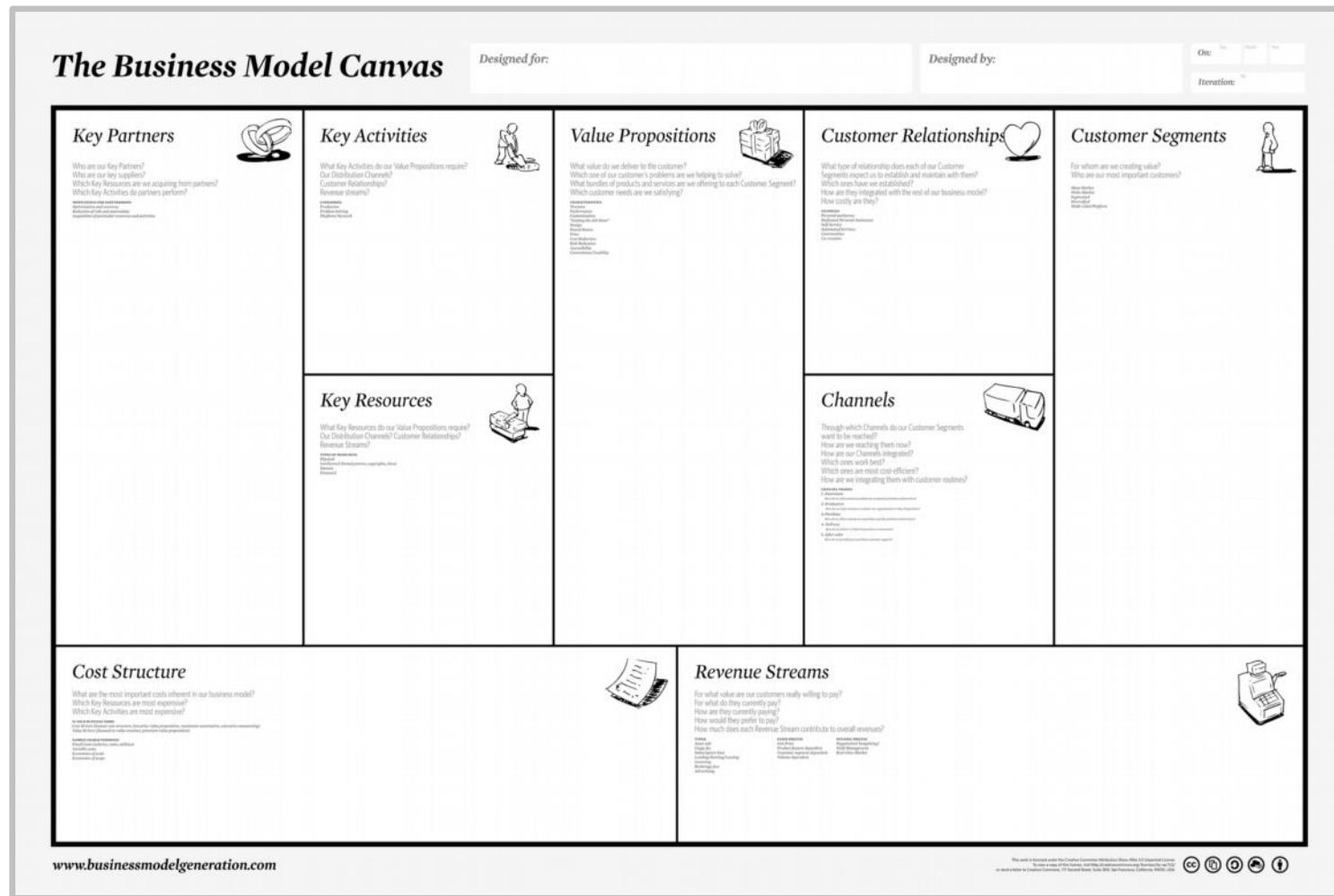
A handbook for visionaries, game changers and challengers. The global best-selling phenomenon, available in 18 languages.

Order now

Not a business plan, no numbers, don't worry:  
just prototype ideas!

Source: <http://www.businessmodelgeneration.com/book>

# Business Model Canvas: prototype



Not a business plan, no numbers, don't worry:  
prototype ideas!

Source: <http://www.businessmodelgeneration.com/canvas>  
[http://en.wikipedia.org/wiki/Business\\_Model\\_Canvas](http://en.wikipedia.org/wiki/Business_Model_Canvas)

# A”

Aalto University  
Media Factory

# Thank you!!

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



10.09.2012