Makers: The Next Frontier for Open Source

Ruth Suehle
@suehle
ruth@redhat.com
OPEN SOURCE AND STANDARDS
Raspberry Pi Hacks
Tips and Tools for Making Things with the Inexpensive Linux Computer

opensource.com is where we explore what happens when the open source way is applied to the world

SUPPORTED BY RED HAT
Step 1: Make cool stuff
Step 2: ???
Step 3: Profit!
A long, long time ago in a galaxy pretty much right here....
Long time ago

~4 million years ago
10,000-year-old tools found in Les Combarelles cave in France on display in Les Eyzies-de-Tayac

- Long time ago
- ~4 million years ago
- Closer to 2 million years ago now
~10,000 years ago

40-60,000 years ago
To succeed, you must share.
Those cave paintings... fast forward through a lot of time... 6-500 BC
Julia habet in diem nostram assumptam
In protectione et diebus comonabitur
Cunctus susceptrum meus est ut
A fugam meum ad meus sperabolium
Quorumque liberae autem de laqueo
Ventum est ventum voluptas.

Incapsulatum est obumbranti;
Et subministeris suis sperabis, ...
Ac tua cuncta adhuc tenevicias.
"It is not right that the divine words in that book should perish, or that I or any other should be hindered from writing them or reading them or spreading them among the tribes."
- St. Columba

"To every cow belongs its calf; to every book its copy."
- King Diarmait mac Cerbhiall
An Act for the Encouragement of Learning, by Vesting the Copies of Printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned.

Whereas Printers, Book-sellers, and other Persons have of late frequently taken the Liberty of Printing, Re-printing, and Publishing, extant to be Printed, Re-printed, and Published Books, and other Writings, without the Consent of the Authors or Proprietors of such Books and Writings, to their very great Detriment, and too often to the Ruin of them and their Families: For Preventing therefore such Practices for the future, and for the Encouragement of Learned Men to Compose and Write useful Books, I have it pleased Your Majesty, that it may be Enacted, and be it Enacted by the Queen's most Excellent Majesty, by and with the Advice and Consent of the Lords Spiritual and Temporal, and Commons in this present Parliament Assembled, and by the Authority of the same, That from and after the
A COPYRIGHT WILL PROTECT YOU FROM PIRATES.

And make you a fortune. If you have a PLAY, SKETCH, PHOTO, ACT, SONG or BOOK that is worth anything, you should copyright it. Don’t take chances when you can secure our services at small cost. Send for our SPECIAL OFFER TO INVENTORS before applying for a patent, it will pay you. HANDBOOK on patents sent FREE. We advise if patentable or not, FREE. We incorporate STOCK COMPANIES. Small fees. Consult us.

WORMELLE & VAN MATER,
Managers,
Columbia Copyright & Patent Co. Inc.,
WASHINGTON, D. C.
IF YOU CAN'T OPEN IT,
YOU DON'T OWN IT

makezine.com
Essential freedoms

In order to be recognized as "free" under this definition, a license must grant the following freedoms without limitation:

The freedom to use and perform the work.
The freedom to study the work and apply the information.
The freedom to redistribute copies.
The freedom to distribute derivative works.
Open Hardware Summit open to hybrid models

Posted 05 Oct 2012 by Ruth Suehle (Red Hat) ⭐️⭐️⭐️⭐️⭐️

If there was an overarching message from the speakers at last week’s Open Hardware Summit, particularly those in the first morning block, it’s that openness isn’t that critical. It sounds strange coming from a conference whose name starts with “open,” but speaker after speaker talked about hybrids and doing whatever worked, not just doing what was open.
“Everything I've learned as I built my own business is because people shared what they knew.”
“Everything I've learned as I built my own business is because people shared what they knew. I don't think we should be dogmatic. We need to consider other possibilities and approaches to open-based innovation.”
**MAKE: interview, October 2011**

The funding doesn’t change our commitment to being open source. Why would we change a winning strategy? Being open is the future of manufacturing, and we're just at the beginning of the age of sharing. **In the future, people will remember businesses that refused to share with their customers and wonder how they could be so backwards.**

Our commitment to open source stems from our passion for sharing. We know that if we share with our users and the world, there is a natural positive effect.

I think people worry on our behalf that as an open hardware company, we’ll get knocked off and undercut. First of all, that happens all the time to businesses that are not open hardware. In order to be truly competitive, we’ve got to keep rocking it!

---

**Open Hardware Summit, September 2012**

For the Replicator 2, we will not share the way the physical machine is designed or our GUI because we don’t think carbon-copy cloning is acceptable and carbon-copy clones undermine our ability to pay people to do development.

People said, 'You did open source hardware; this is totally allowed under the license. What did you expect?"' It's true. They're right. This is the result of something we did, but that doesn't mean we have to like it.
All Categories

- 3D Printing
- Art
- Fashion
- Gadgets
- Hobby
- Household
- Learning
- Models
- Tools
- Toys & Games
Freedom in the 3D Printing Community

Aleph Objects, Inc. is committed to Open Source Hardware, Free Software, and Libre Innovation. That’s why we are proud that our LulzBot product line of 3D printers are the first hardware product ever certified by the Free Software Foundation to Respect Your Freedom. We are proud to support the communities that uphold this philosophy.
THE GREATEST SHOW (and TELL) ON EARTH
THE GREATEST SHOW
(and SELL)
ON EARTH
(RIP Radio Shack)
ST. LOUIS, Aug. 26, 2013 /PRNewswire/ -- What you feed your cat is just as important as HOW you feed your cat. Cats are designed to hunt for their food, and while domestic cats have it much easier they still benefit from the stimulation that comes from the hunt. Swapping a bowl for a puzzle feeder encourages your cat to work for her food, stimulating her mind and body and helping her live her True Nature. So Purina ONE® is calling on the cat community to create and share do-it-yourself (DIY) puzzle feeder projects to help enrich the feeding experiences of cats. Designs will be featured on Purina ONE's DIY Cat Projects Pinterest board and in the brand's booth at Maker Faire in New York on September 21 and 22, where Purina ONE will work to challenge common misconceptions and educate cat owners about their cats' True Nature.

(Photo: http://photos.prnewswire.com/prnh/20130826/LA69621)

"The True Nature of Cats movement is about letting our cats be who they were born to be through proper nutrition and enriching experiences," says Nida Bockert, director of Purina ONE brand cat food. "The active pursuit of food is in a cat's True Nature, and using a puzzle feeder is one great way to appeal to your cat's natural desire for physical and mental stimulation."
open prosthetics

Opensource.com
“DIY and open source are still part of the solution. They're messy and sometimes ineffective tools, but sometimes scratching your own itch is the best way to get something done.”

- Jonathan Kuniholm
  Open Prosthetics Project founder
You can help!

We can't do the best possible job without people with diverse skill sets and backgrounds; we need your help.

**Be a user:** Do you have an amputation or limb deficiency? Help us test our prosthetic ideas by using them in your daily life and/or suggesting modifications.

**Be a donor:** We need money to pay for prototyping and keep the lights on! [Find out how you can donate.](#)

**Be a grant writer:** Do you have experience writing and receiving grants? Help us secure long-term funding.

**Be our legal team:** Do you provide legal services related to intellectual property? Help us make sure that our designs stay in the public domain.

**Be a service provider:** Do you provide machining, rapid prototyping, or casting services? We need your help turning our models into working prototypes. You can also help us by fulfilling orders for prosthetic parts when our designs are usable.

**Be a researcher:** Can you read through vast quantities of technical information and pull out the interesting stuff? Do you have expertise with the US patent system? We can use your skills to find answers to technical questions and find existing solutions to our problems.

Or maybe you have some other skills or advice we could use. Please [contact us](#) right away!
open pacemakers

Opensource.com
NOT CONFIDENTIAL
Because these hardware designs are closed to public scrutiny, it is relatively easy for surveillance at the Internet’s infrastructural level to go undetected. To make the Internet less susceptible to mass surveillance, we need to recreate the physical layer of its infrastructure on the basis of open-source principles.

- Eli Dourado

*The New York Times*

October 8, 2013
"[We wanted to] learn new things while making something we would actually use on a daily basis."

– Bunnie Huang

Project Novena
“Without the right to tinker and explore, we risk becoming enslaved by technology; and the more we exercise the right to hack, the harder it will be to take that right away.”

n ostarch.com/ xboxfree
Towards a Functional Licence for Open Hardware

http://www.ifosslr.org/ifosslr/article/view/69/131
ALL PROBLEMS ARE OPPORTUNITIES IN DISGUISE
ohm Sweet ohm
A resistance is not futile
2014年10月26日（日）4時20分更新
※各測定地点の数値は5分ごとに更新されています

すべての地点の測定値を見る＞＞

宮崎県都市部広原町
付近の放射線情報
7月16日 21時5分時点の測定値
最新：0.131(μSv/時)（1）で5分ごとに更新
直近24時間：（μSv/時）（2）年換算：（mSv/年）（3）

＞＞この地点の詳しい情報を見る

新しく追加された測定地点（2012年5月24日時点）
静岡県静岡市清水区有東坂2丁目、大阪府東大阪市小阪1丁目、山形県山形市松見町、福岡県福岡市城南区七隈8丁目、岐阜県山県市高尾、福島県磐城野市二日市中央3丁目

これまでの追加地点、お知らせ＞＞
The Maker Movement

Radicalize!

Join the Revolution!

Manifesto

Mark Hatch

Make is Fundamental.

Make something for Christmas!

Tools of Industrial Revolution

are at the Cheapest

Maker Spaces

Agriculture

Banking

Save Lives

We can change the world!

Makers are changing...

Share

Give away small pieces of yourself.

Participate

Support

Learn

Tool up

Embrace Change

Change the world!
"the unique opportunity to arm a Maker Movement army with the tools it needs to change itself and the world."
Phineas: We're fixing this time machine.

Isabella: Isn't that kinda impossible?

Phineas: That's a possibility.
<table>
<thead>
<tr>
<th>Project</th>
<th>Date</th>
<th>Goal</th>
<th>Funding</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolest Cooler</td>
<td>Aug. 2014</td>
<td>$50,000</td>
<td>$13,285,227</td>
<td>Cooler with blender, speaker, USB charger, etc.</td>
</tr>
<tr>
<td>Pebble</td>
<td>May 2012</td>
<td>$100,000</td>
<td>$10,266,845</td>
<td>E-paper smartwatch</td>
</tr>
<tr>
<td>Exploding Kittens</td>
<td>Feb. 2015</td>
<td>$10,000</td>
<td>$8,782,571</td>
<td>Card game from Matthew Inman.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(reached in 8 minutes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ouya</td>
<td>Aug. 2012</td>
<td>$950,000</td>
<td>$8,596,474</td>
<td>Video game console</td>
</tr>
<tr>
<td>Pono Music</td>
<td>Apr. 2014</td>
<td>$800,000</td>
<td>$6,225,354</td>
<td>FLAC music player</td>
</tr>
</tbody>
</table>
This official Silicon Valley Napkin is all you need to start your own multimillion dollar corporation. By filling in this napkin, you too can join the rich and famous of Silicon Valley.

Business Plan for ____________________________ (fill in company name)

1. CONCEPT:

2. MARKET ANALYSIS:
   - Good
   - Very Good
   - Great

3. OPERATIONS:
   - A. Schedules
   - B. Expenses $__________________

4. MARKETING METHODS:

5. ORGANIZATION:

6. FINANCIAL PROJECTIONS:
   - Cost (Thousand $)
   - Profit (Million $)

© 1986 Z Enterprises
MESH: Creative DIY Kit for the Connected Life

Story | Updates 7 | Comments 25 | Funders 346 | Gallery 11

MESH Make, Experience, SShare

$46,736 USD
RAISED OF $50,000 GOAL

93%
14 days left

This campaign started on Jan 06 and will close on March 07, 2015 (11:59pm PT).

Fixed Funding

Select a contribution amount below:

- $1
- $50
- $100

$ 
USD

CONTRIBUTE NOW

MESH project

Campaign Team

VERIFIED

SELECT A PERK
“Crowdfunding helps us to collect feedback from early adopters and users before products go on the market.”

- Sony
  New Business
  Creation Department
YOU
MOM
SOME GUY ON REDDIT
THAT GIRL YOU LIVED WITH IN 2008
YOUR FRIENDS
MOM
YOU
MERITOCRACY
HOW TO BUILD COMMUNITY
THE OPEN SOURCE WHY
We are standing on the foundation of the largest explosion of creativity, knowledge creation, and innovation in all of human history.

We are surrounded by a cloud of witnesses who wait to see what we will do in the next 10 to 20 years of profound innovation...

The real question is, what are you going to do?

- Mark Hatch, TechShop CEO
MAKE THINGS BETTER.

Contacting:

ruth@redhat.com  |  @suehle