

The Business of Contribution

Bdale Garbee

Open Source & Linux Chief Technologist



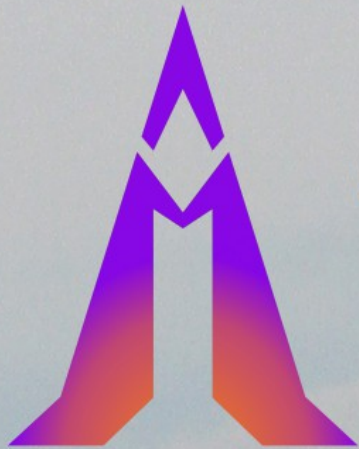
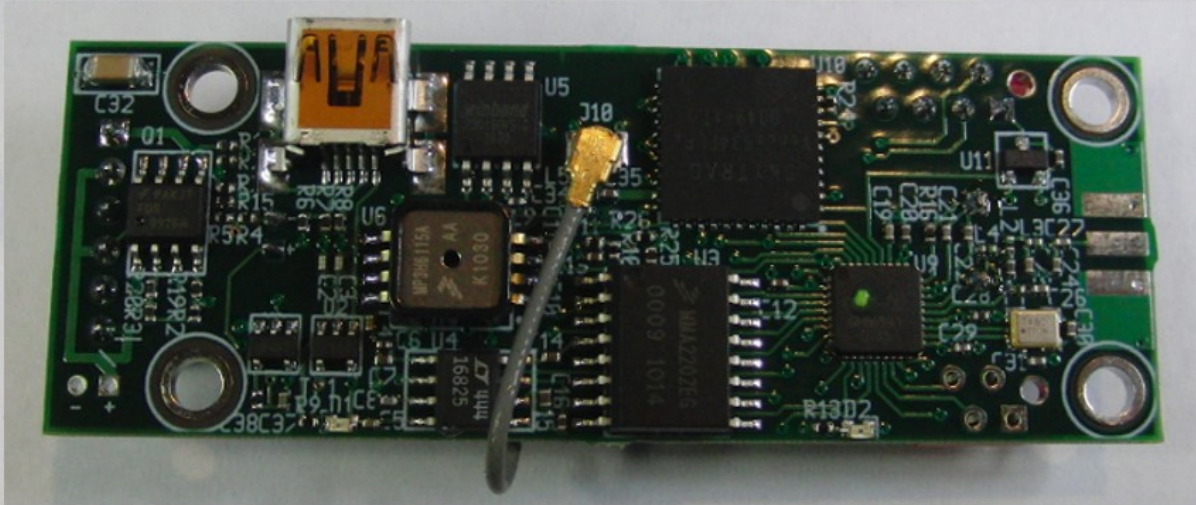
Who is Bdale?

- First contribution to Free Software circa 1979
- HP Open Source & Linux Chief Technologist
- Contributor to Debian GNU/Linux since October 1994, including service as Debian Project Leader, early design of infrastructure, porting to several new architectures, maintaining many packages. Currently serve as chairman of the Debian Technical Committee.
- 2008 FNILL Lutece d'Or as "FLOSS Personality of the Year"
- President, Software in the Public Interest
- Board member of Linux Foundation
- Board member of Freedombox Foundation
- Amateur satellite and high-power model rocket builder ...



REDSKY

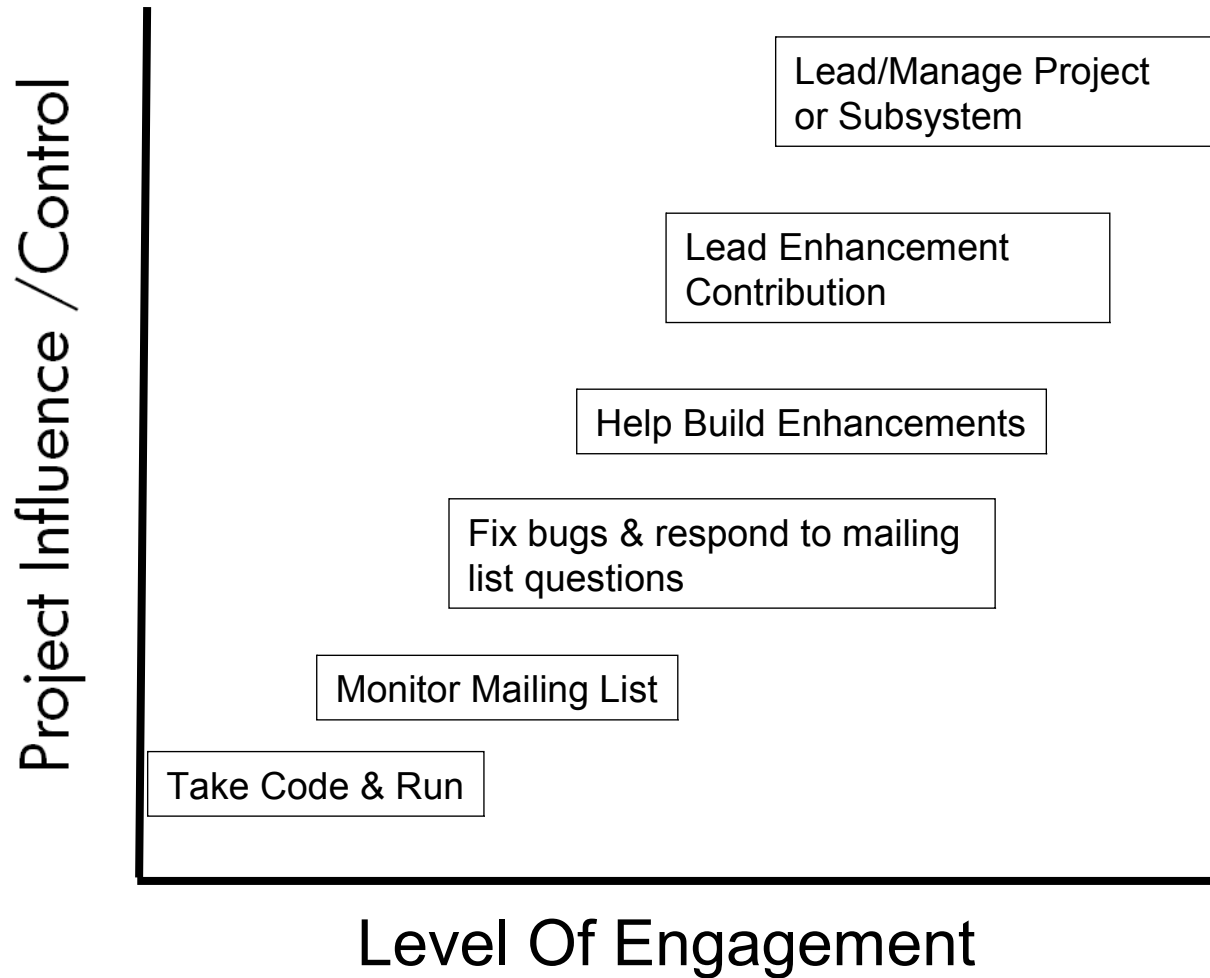
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Altus
Metrum

<http://altusmetrum.org/>

Levels Of Open Source Project Engagement



FOSS Essential Concepts



Examples of Free & Open Source Software

It is everywhere



Community Development Model

- A key attribute of Linux and many Open Source applications is that they are developed and supported “by the community”
- What does that mean?
 - No one company in charge
 - A range of contributors with varied interests, abilities, and motivations



Freedom of Choice

- Users have flexibility in how they acquire support for open source technology
- Any user can become a developer, or pay someone to develop or support open source software on their behalf
- If “upstream” ever behaves unacceptably, developers have the power to “fork”



What's my point?

One significant consequence of lowering the barriers to entry combined with the community development process around open source, is that people we don't even know exist are empowered to invent things we can't imagine...

Everyone, companies and individuals, can take advantage of the innovations that result!





Peace
Love
and
Rockets

WE'RE DOING
SCIENCE.
VERY LOUD
SCIENCE.

Business & Community



What Open Source Developers Want

- Difficult to characterize, since we're all so different
- Some common elements
 - Scratching itches
 - Not working on a schedule
 - Collaboration / sharing
- Personal reputation



What Companies Need

- Revenue
- Growth
- Differentiation
- Corporate reputation



Something to Agree On

- The goal, ultimately, is to deliver positive user experiences!
- As developers we want to do this because we want others to be able to use and benefit from our work
- As companies, it's how we motivate customers to want to give us their money!



Licenses & Business Models



Copyright Holders

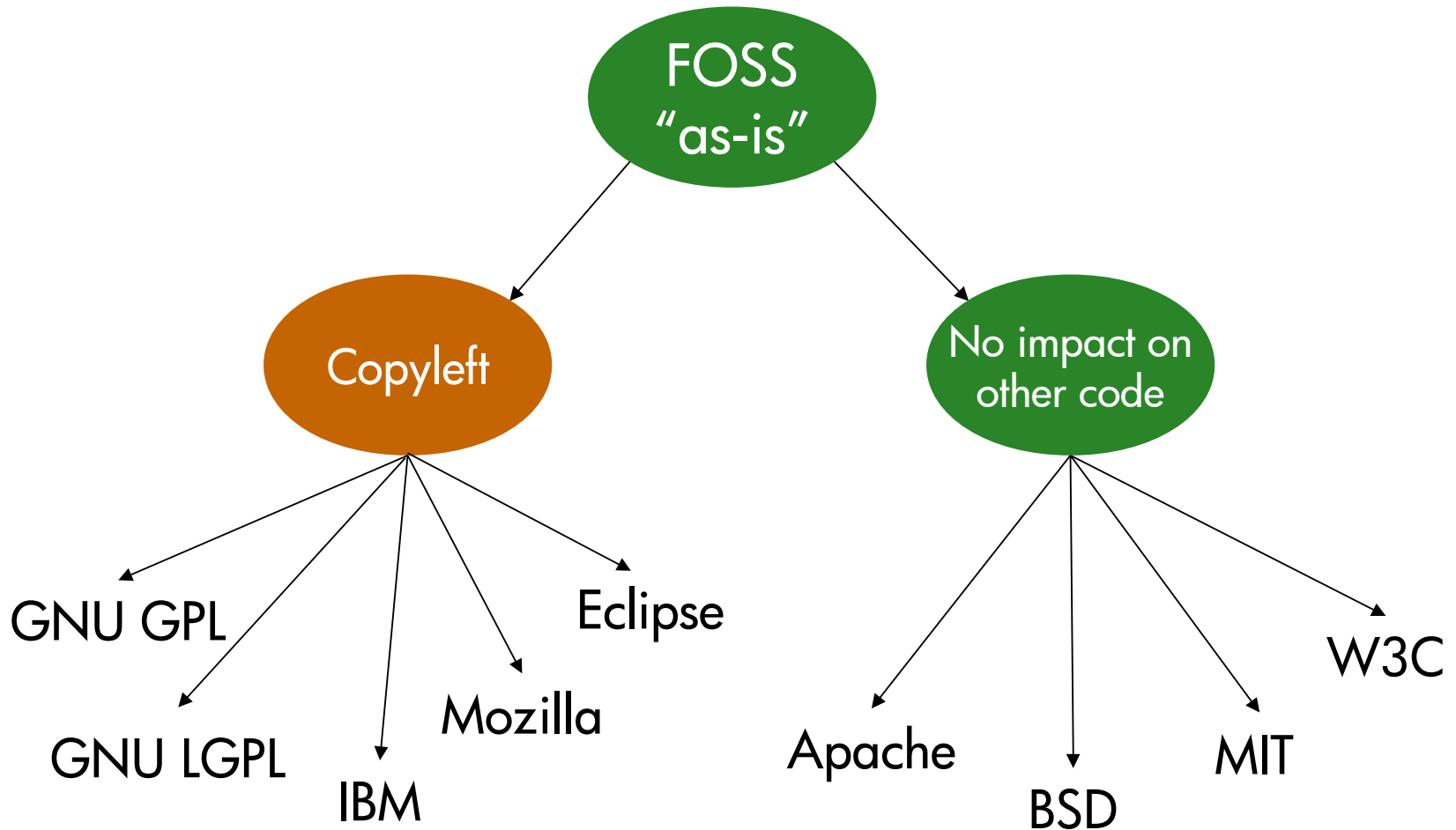
- FOSS licensing has its basis in copyright law
- The initial author / copyright holder of a piece of code gets to choose the license(s)
- Without an explicit license assertion, no rights are conveyed ... thanks to “copyright by default”
- License choice can have a profound impact on the nature and behavior of the community formed
- Choosing to “join a project” means accepting the terms of any licenses already in place



Open Source Software licenses

- More than 60 licenses today as recognized by OSI
- Two basic types of licenses
 - Reciprocal licenses that require code changes to be returned to the community at large. This type of license is also called a Copyleft license.
 - Licenses that permit modified versions to be retained as proprietary and permit arbitrary integration into proprietary software.

Two types of FOSS licenses




Business models

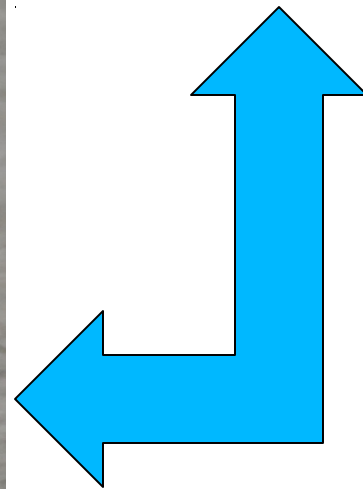
Remember, “Open Source” is not a business model!

- Can enable the sale of hardware
- Sell services, such as training and support
- Give source away, charge for binary access
- Open a core, keep other parts of an ecosystem (add-ons, management tools, etc) proprietary
- Latest version to subscribers, older versions open
- Turn someone else's profit pool into a commodity
- Harness the creativity of a very diverse community






**WITH ENOUGH THRUST
PIGS FLY JUST FINE**



Deciding to Contribute



Benefits of using Open Source Software

Participation in the Open Source Community can bring many benefits to an organization's business

Software has zero marginal cost

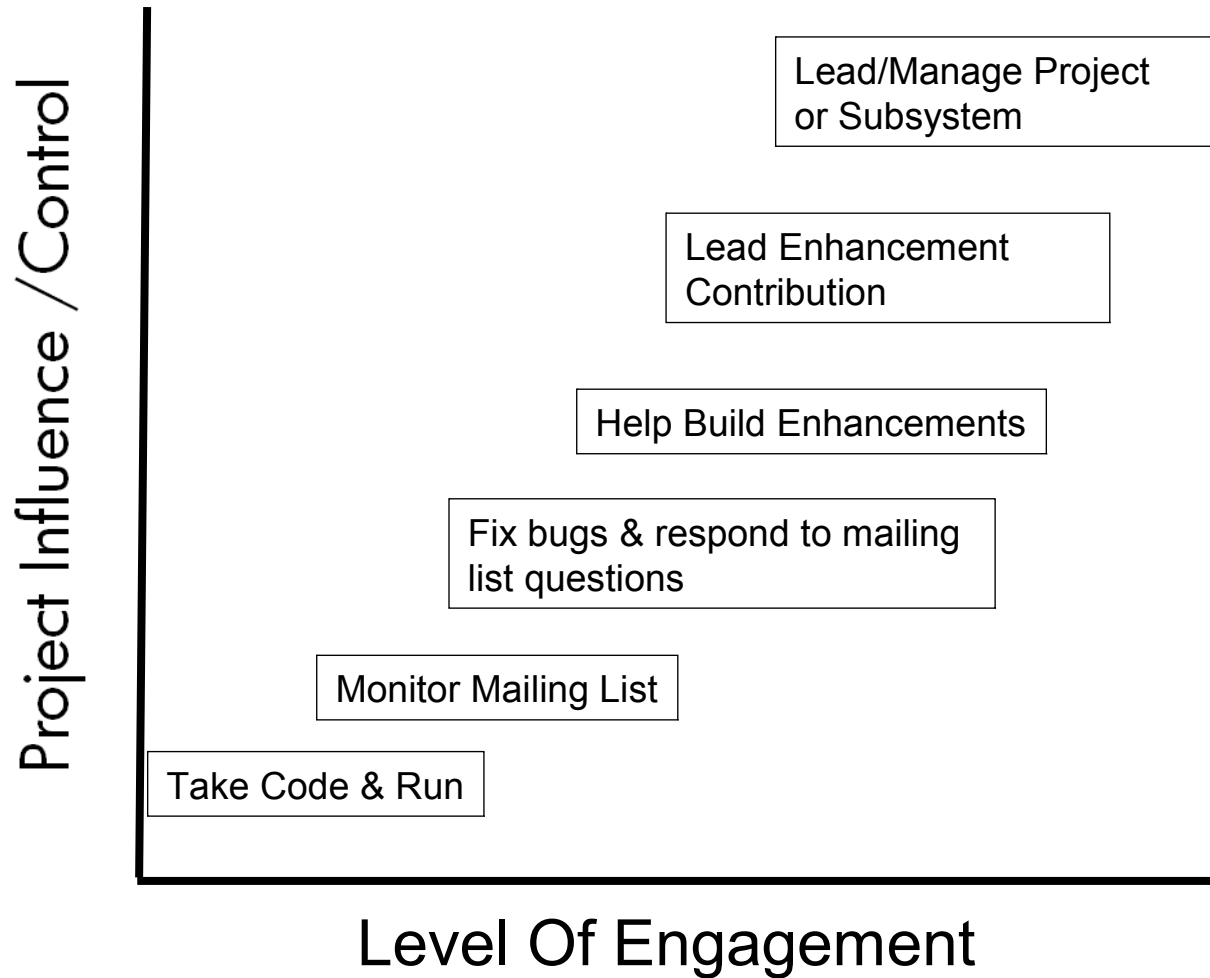
The Web provides a low-cost collaboration and distribution mechanism

Low-cost tools for software development are widely available

Minimize development costs

Decrease time-to-market for software products

Levels Of Open Source Project Engagement



Efficient Use of Open Source Software

Open Source Community

Company Product Development Team

Version A.b

Download Source Code

- Add open source to company product
- Enhance/adapt open source to product
- Test product & fix bugs

Give enhancements & bug fixes back to open source project

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•
•

Ship Product Version X.y

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•
•

Version A.c

Download Source Code

- Add open source to company product
- Open source already adapted to Product
- No Need to fix bugs found in version X.y
- Test for, and fix any new bugs

Give new bug fixes back to open source project

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•
•

Ship Product Version X.z

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Making Best Use of Resources

- Focus investments on things that truly differentiate us
- Taking advantage of existing open source technology can help reduce the cost of non-differentiating elements of products
- Maximizing community involvement grows the body of technology that we do not need to invest in to take advantage of in the future
- “Being open” does **not** mean:
 - Giving everything we do away for free
 - Getting everything we want for free



Value Gained By FOSS Project Collaboration



Building FOSS Equity

- Working with partners is a good way to run experiments without the risk of commitment, but yields no technical or reputation equity
- When company employees work directly on open source projects, they build expertise that can be re-applied, and the company gains the ability to directly influence future project technical direction
- Both reality and perception are important!



Key Concept: Individuals Matter!

- In the FOSS world, it's all about the code
- Getting code accepted involves a combination of technical prowess and reputation
- The reputation that matters is individual
 - Linus famously observed that he didn't even know the corporate affiliation of most kernel developers
- Greater FOSS engagement can be a career development element for many of us!





HP Results



The World's Largest IT Company

#11

US

170

Countries

#28

Global

350,000

Employees

177,000

WW Partners

#1 or #2

In most markets

By the Numbers...

2 PCs

Per second



120 PCs

Per minute

2 Printers

Per second



100 Printers

Per minute

1 Server

Every 15 seconds

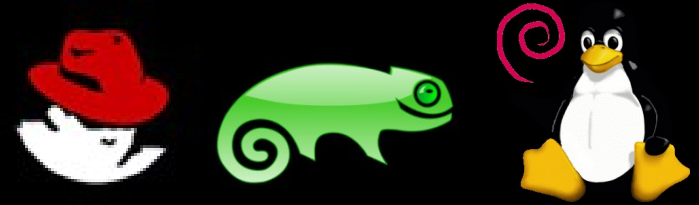


4 Servers

Per minute

HP has led Linux server market for 14+ years!

- 40% share of the Linux x86 server market*
- Scalable platforms for enterprise Linux
- Linux expertise shared openly
- Unwavering commitment to open source



*Source: IDC Worldwide Quarterly Server Tracker, Feb 2010



HP technology is part of your life



We process over **13.1 billion credit card transactions** annually



We manage more than **100 PB of online data** in **60 countries**



We perform **2.4 billion healthcare transactions** annually



We detect and quarantine more than **3.1 million viruses** annually

HP Public Cloud

- Openstack
 - *Significant* commitment of HP resources
 - One of the largest contributors of technical content
 - HP hosts the Openstack build farm
 - Helping the transition to a foundation model
- Ubuntu LTS
- Now in public beta, hpcloud.com for more info!



FOSS at HP in 2012

- The majority of HP products today contain at least some FOSS content.
- The percentage of FOSS content in products that contain any FOSS (measured in lines of code) is steadily increasing.
- Direct HP engagement in FOSS ecosystems has a long history, and is growing rapidly.





*Never doubt that a small group of thoughtful,
committed citizens can change the world.
Indeed, it is the only thing that ever has.*

Margaret Mead

