

Open Source for Fun and Profit

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<http://2bits.com>

The logo for '2bits' features the number '2' in a bright green color, followed by the word 'bits' in a dark grey, stylized font. The 'i' in 'bits' has a small green square above it. The entire logo is reflected below it on a light grey surface.



Agenda



- Introduction
- Definitions
- Open Source software licences
- Business models
- Case study: Drupal
 - Product, Project, Community
- Ecosystem and Symbiosis
- Careers
- Contributing
- Questions, discussion





About Khalid



- 25 years in software development and consulting
- Sinclair ZX Spectrum, mainframe, then UNIX since 1987
- Linux discovered 1990, using it regularly since 1995, “LAMP” since 1999
- Open source developer, contributor since 2003
- Full time open source consulting





About 2bits.com



- Founded in 1999, based in Waterloo, Ontario.
- Using and contributing to Drupal since 2003
- Full time consulting
- Services
 - Drupal development
 - LAMP performance optimization and tuning
 - Server provisioning for performance and uptime
 - Manage huge sites for various clients
- <http://2bits.com>





Cathedral vs. Bazaar



- Two different cultures
 - Competition vs. Collaboration
 - Win/Lose (Zero Sum) vs. Win/Win/Win
 - www.groklaw.net/pdf/Comes-3096.pdf (Slide 9)
 - Closed development vs. “Its all out in the open”
 - Slow/monolithic vs. Incremental/iterative
- Cathedral and the Bazaar (Eric Raymond)
 - http://en.wikipedia.org/wiki/The_Cathedral_and_the_Bazaar





Corporatitus?



- Do you have any of the following symptoms?
 - Your work is not noticed/appreciated?
 - Tired of office politics?
 - Hit the glass ceiling?
 - Too hierarchical for you?
 - Been there too long with little challenge?





Why Open Source?



- Reduce capital costs
 - You don't need to pay licenses for anything in the LAMP stack + Drupal
- Reduce ongoing costs
 - Many choices for maintenance (in house, consulting companies, freelancers, community)
- “Total Cost of Ownership” is in favor of Open Source (FUD notwithstanding)





Why Open Source?



- Customization
 - You don't need permission, fees, know how or special licenses
- Growth market
 - Lots of opportunities
- Easier to get noticed
 - Low barrier for entry
 - Marketing by doing (meritocracy) ...





Some Definitions



- Open Source
 - More inclusive / Less strict
 - Stresses availability
- Free software
 - More strict definition
 - Stresses liberty (freedom)
- Each has pros and cons





Licence types



- BSD variants
 - “Do with it what you want, including closing it off”
 - Examples: NetBSD (Apple OS/X)
- GPL
 - “You cannot deprive users of freedoms you got”
 - Examples: Linux kernel, Drupal
- Web services “loophole”
 - Affero GPL license





Other licences



- Apache
 - GPL compatible
- Mozilla
 - “weak copyleft”
 - Can be linked/combined with proprietary code
- PHP
 - Non-GPL compatible
- Many others





Applicability



- Within the Drupal community
 - Applies to “code”
 - Does not apply to graphics (themes)
- Ask the Drupal Association if in doubt
 - Contact form





Business Models



Many business models for Open Source





Selling services



More on that later ...





Selling solutions



- You don't sell the software, but sell the hardware that uses the software as a total solution





Selling solutions (cont'd)

- Many embedded devices use Linux
 - Mobile phones
 - Google Android
 - Palm Pre mobile
 - Nokia N900
 - TVs
 - Panasonic, Toshiba, Samsung
 - Routers
 - Business routers (e.g. Vyatta)
 - Consumer routers (Linksys, ...)





Selling solutions (cont'd) **abits**

- Or sell hardware, with a proprietary application, and the operating system as a commodity
 - e.g. Google Appliance





What is Drupal?



- Web Content Management System (CMS)
- Web Applications Framework
- PHP + MySQL / PostgreSQL
- Free Open/Source : GPL v2 or later licensed
- Founded 2001
- Very active and growing community





How is Drupal unique?



- Highly customizable
- Extremely powerful
- Infinitely flexible
- Continually Improved
- Large selections of contributions and themes





Who uses Drupal?



- Yahoo Research
- Amnesty International
- AOL Corp
- Popular Science
- MTV UK
- Ads of the world
- United Nations (End Poverty Campaign)
- Sony BMG
- The Onion
- TwiT.tv
- Many more ...





Drupal (as a product)



- As a Product
 - A “tarball” that you download and install
- As a Framework
 - “Content Management System”
 - “Web applications framework”
 - Building block system for web sites (like LEGO)
- End product?
 - None of the above, rather the site you are building





Drupal (as a project)



- Ever evolving
- Ever improving
- Also ...





Drupal (as a community)

- Most important asset of Drupal
- Collectively, we are the ones who ...
 - Use it
 - Support it
 - Promote it
 - Improve it





Open Source community **abits**

- Open sources is also an “ecosystem”
 - Developers
 - Promoters
 - Adopters
 - Documentors
 - Trainers
 - Consultants





Types of symbiosis



- Mutualism
- Commensalism
- Parasitism
 - Organism causing harm to another giving benefit





Mutualism



Organisms in an ecosystem benefiting each other





Mutualism



- Large fish, sea turtles seek “cleaning stations”
- Striped Cleaner Wrasse

Photo Copyright 2008 Richard Ling





Mutualism



- Cleaner shrimps
- In caves
- Distinct marking





Commensalism



- Organisms living along side, no harm or benefit
- Or one side benefits, but the other does not get harmed





Parasitism



Organism causing harm to another by benefiting from it





Parasitism



- Sabre-toothed Blenny
- Deception! mimics the Striped Cleaner Wrasse
- Tears skin and flesh from unsuspecting victims





Parasitism



- Schistosoma (blood fluke)
- Hosts are: Humans and freshwater snails





Corporate marketshare **abits**

- Destructive and antagonistic competition
- Win/Lose
 - Competitors must be “defeated”
 - One vendor wins and the other loses





Open Source



- Open Source
 - Collaboration and sharing
 - Win/Win/Win situation
- “Grow the pie”: a slice for everyone
- Don't want to present an overly rosy/eutopian picture





Open Source services



Many Open Source services





Services overview (web) **abits**

- Site Building (putting together web sites)
- Theming/templates (look and feel)
- Development (extensions, new functionality)
- Customization (changing certain features)
- Training (classroom, videos, online)
- Books (paper, e-books)
- Hosting (LAMP stack)
- Performance and scalability





Development



- Writing modules to do special things, e.g.
 - “Scratch your own itch”
 - Something a client asks for
- Examples
 - Adding features
 - Integrating external sites/APIs





Development



- Two areas
 - Backend and/or Front end (user experience)
- Skills:
 - PHP
 - Drupal's API
 - MySQL/PostgreSQL
 - HTML, some CSS
 - Javascript
 - jQuery





Site building



- No programming knowledge needed
- Need to understand client requirements
- Need to know what modules are out there
- Putting them together to meet requirements
- Skills:
 - LAMP/WAMP (for deployment)
 - Keeping up to date with new modules and updates





Themeing



- Customize look and feel
- From simple to quite complex
- Artistic inclination
- Skills:
 - HTML
 - CSS
 - graphics
 - Some PHP





Performance Optimization



- Two types
 - Make it faster for individual page loads
 - Make it handle more load (scalability)
- Backend
 - page generation time
- Front end
 - How user perceives the speed of page loading





Training



- Courses
- DVDs
- Webinars





Your options?



Options abound ...





Individual ...



- Freelancing / Contracting
 - Low entry barrier
- Start to partner with like minded people
 - Complementary skills (e.g. Themer and developer)
- Join a company that is open source minded
 - Your contributions can be the key





Company ...



- Promote Open Source to clients
 - For pragmatic reasons (it works, low cost, ...etc.), not for ideology ...
- Hire Open Source people
 - Can start with subcontracting





Company ...



- Get involved
 - Contribute to a project that you use and have passion for
- Let your work be known
 - Showcase your work on a blog
 - Join the “planet” of your project





Examples ...



An example <http://drupal.org/user/4063>





Drupal's Seven Principles



<http://drupal.org/principles>

- (1) Modular and Extensible
- (2) Quality coding
- (3) Standards-based
- (4) Low resource demands
- (5) Open source
- (6) Ease of use
- (7) Collaboration**





Contribute!



- Contribute your code
 - Better for you as an freelancer/consulting shop
 - Better for your client too (no rework on upgrades)
- You get:
 - Bug fixes
 - Features
 - Upgrades





Contribute!



- It is not only about “code”
 - Documentation
 - Advocacy/Marketing
 - Event organizing (conferences, camps, ...etc)
 - Fundraising
 - Many others ...





Contribute!



- It is fun!
- It is very rewarding!
- It is addicting!
- And it is free (at least the “first commit” is ...)





Contribute!



- Remember: Open Source is an Ecosystem
 - Mutualistic symbiosis is the most mutually beneficial relationship
 - Other forms are not of mutual benefit (one sided or even parasitic)





Contribute !



Give a little, get a whole lot back ...





Join in ...



And have lots of fun ...





Conclusion



- Questions?
- Comments?
- Discussions?

