Beyond Doing Business

The Continuing Importance of Community Development

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Definitions
Community

• My English dictionary defines “community” as:
  – A body of people having common rights, privileges, or interests, or living in the same place under the same laws and regulations.

• We all participate in traditional communities
  – the towns we live in, the schools we attended
  – churches, sports teams, volunteer organizations

• The Internet enabled the formation of a new class of communities that did not previously exist.
  – People with common interests or values
  – Potentially broadly geographically distributed
Development

• Dictionaries have a lot to say about “development”
  − A state in which things are improving.
  − Changing gradually from a simple to a more complex level.
  − The act of making some area of land or water more profitable or productive or useful.
  − The process of analysis, design, coding and testing software.
Community Development

• Developers: The software development process most commonly associated with the Linux kernel, and adopted by many other projects including Debian.

• Customers: Expanding the addressable market for Linux and Open Source solutions.

• Citizens: Raising the level of technology literacy and economic potential of traditional communities in developing regions.
So ?
Doing Business

• While it may have started as a hobby for many of us, Linux and related Open Source software is now big business.
  − Big companies aren't generally participating in the Linux marketplace for philosophical reasons... it's business!
  − Major ISVs treating Linux as a first-class platform.
  − Last year's media coverage of OSCON...
    • “Open for business”
    • “Ready for prime time”
  − HP's $2.5 billion in Linux-attributable revenue last year.
Doing Business

“I like being able to put the $ at the end of my geek code!”
Beyond Doing Business?

• How did we get to where we are?
• What makes Linux and Open Source “special”?
• Investing in the future with only vague notions of the potential returns...
Beyond Doing Business?

• Where does innovation really happen?
• Surprisingly often, it comes because “amateurs” do something “industry” or “the establishment” doesn’t believe they can do...
Recognize these guys?
Does this help?
How about this guy?
Satellites

• On 4 October 1957, Russia shocked the world by launching Sputnik 1, the world's first man-made orbiting satellite.

• On 31 January 1958, the USA launched Explorer 1, the “free world's” first successful satellite.

• On 12 December 1961, amateur radio operators in the USA launched their first Orbiting Satellite Carrying Amateur Radio, or “OSCAR”.

• Since then, radio amateurs have successfully launched 51 satellites, about half of which are still working!
OSCAR-7

- In 1981, the batteries failed.
- In 2002, an amateur radio station heard familiar-sounding noises, and investigated... OSCAR-7 was transmitting again!
- OSCAR-7 is currently AMSAT's oldest operational satellite... almost 30 years after launch!
Fast-Forward to OSCAR-40

- The largest, most complicated amateur satellite ever built... it took over 10 years to build and launch, and cost over 4.5 million dollars... all of which were donated!

- In addition to serving as an amateur radio communications satellite, AO-40 also carried some interesting science experiments:
  - radiation measuring system
  - earth imaging cameras
  - GPS receivers
Back to Open Source...
Debian?
What is Debian?

- 'The Debian Project is an association of individuals who have made common cause to create a free operating system.'
- More specifically, Debian
  - is one of the most popular GNU/Linux distributions
  - is a completely open volunteer organization
  - is quite international
  - works with companies to develop and maintain software
  - is Focused on Freedom
  - is well represented in the Free Software world
- Strong proof of the viability of the Linux kernel model of community-based software development.
Evolution of the Debian Community

• Ian Murdock's Debian Manifesto attracted people excited by the idea of Free Software to join the project.

• The Social Contract and associated Debian Free Software Guidelines articulated the core set of shared values of the growing Debian community. Acceptance of these values became a criteria for acceptance into the community.

• As the community continued to evolve, a constitution was drafted to clarify roles and responsibilities, and to provide for conflict resolution and decision making.

• The Debian community continues to evolve, but the results already speak for themselves...
A Few Debian Statistics

• Debian runs on everything from handhelds to mainframes
• 11 released architectures
  • alpha arm hppa i386 ia64 m68k mips mipsel powerpc s390 sparc
• unreleased port to x86_64 architecture
• also working with non-Linux kernels
• Debian's technology, policies, and packages form the basis for a rich variety of custom and derived distributions.

  − 1371 people
  − 8912 source packages
  − 15393 binary packages
Applying the results of community development... to developing community.
Extremadura

• A region in the South-West of Spain, near the Portugese border, with a population of about one million people.

• One of the poorest regions in Spain, facing difficult economic challenges.

• A place where 80,000 Linux desktop computers were deployed in schools, one for every two students in the public education system!

• A model for successful large-scale Linux deployments in government and education that many hope to duplicate.
Closer to Home

• Linux User Groups
• Help a non-profit organization become more effective through the application of technology.
• Chuckle less when you overhear strangers trying to explain computers to each other, and think about what you can do in your own real-world communities to increase technology literacy!
So, what does this all mean?
• Motivated communities of people with a common interest can accomplish astounding things, even when there's no direct economic return.

• Companies like HP working hand in hand with partners, competitors, and individual developers around the world to advance technology with a minimum of legal and financial overhead... is a beautiful thing!

• If you really want to “help make the world safe for bits”, put your skills and experience to work applying Open Source code and principles in your real-world communities...
Erde

Sonne

Mars

Marsumlaufbahn

Erdumlaufbahn

Laufzeit des Funksignals ≈ 20 min

r = 150 Mio. km

r = 228 Mio. km

Entfernung zum Mars ≈ 600 Mill. km
Geschwindigkeit ≈ 28 km/s
Flugzeit = 9,5 Monate

Satellitenflugbahn zum Mars