



Open ecosystems

Communities that build the future

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Communities: four claims

1. Communities can bring tremendous benefits
2. Communities are hard
 - They bring challenges as well as potential benefits
3. Good news
 - Modern technology is radically transforming the ability for communities to form and to operate
4. Bad news(?)
 - Communities need more than technology to make them work well
 - (I will offer three points – including Openness)

A community is...

- A **crowd** of people
- With some element in common
 - Common geography
 - Common **purpose**
 - Common baseline accomplishment
 - (“A rising tide lifts all ships”)
- With a feeling of “**belonging**”
- Communities are not always obvious
 - *They need real effort to make people see them and to believe that they are worth caring about*

What kind of communities?

(They're all being transformed in the years ahead!)

- Communities of *consumers*
 - Users of mobile devices
- Communities of *participants*
 - People who have ideas to improve mobile devices
- Communities of *creative artists*
 - People who write texts, send photos, edit photos...
- Communities of *developers*
 - People who change how mobile devices work
- **The Mobile Community**: *we're all in this together*

Benefits of communities

- More people working on solutions: **more IQ**
- **Linus' Law** (according to Eric Raymond)
 - “Given enough eyeballs, all bugs are shallow”
 - “Given a large enough beta-tester and co-developer base, almost every problem will be characterized quickly and the fix will be obvious to someone”
- Another example: **open knowledge**: Wikipedia
- Different example: **open science**: galaxy zoo
- **Communities also enable new *kinds* of solution**
 - Different contributors add **variety** as well as quantity

“The wisdom of crowds”

- The community is collectively smarter than the smartest individuals in the community
 - Example: “Who wants to be a millionaire?”
- **Problem** of finding the collective wisdom
 - “If only we knew what we knew”
- Need to avoid **group-think**
- Need to discern “the signal from **the noise**”
- “**Too many cooks spoil the broth!**”
 - Even though “**many hands make light work**”

Communities are **hard**

1. Risk of having to compromise to **lowest common denominator**
2. Risk of loss of time in lots of negotiations
 - Fighting “**Politics**” and “**personal psychology**”
3. Risk of lots of duplicated (**wasted**) effort
 - => **Strong control from a “wise autocrat” may appear to be a safer system**
 - Quicker, more reliable, single chain of thought (?)
 - But the problems and opportunities we face today demand new calibre of solution
 - **Open, well-designed community approach**

African proverb

- To go fast,
go alone
- To go far,
go together

Technology transforms the potential of community

- **Lowers effect of distance** (bigger communities)
- **Lowers cost of participation**
 - Copying digital information is so easy
 - Ease of authoring (HTML)
 - Ease of *collaborative* authoring (Wiki)
- **Powerful searching** (highlights signal from noise)
- **Technological measures of natural authority**
 - Google page rank
 - Amazon reviewers with high votes
 - Blogs with high reference count

Specific technology aiding developers

- **Distributed source code management**
 - E.g. “Mercurial”
- **Bug tracking** – e.g. “Bugzilla”
- **Friendlier development languages** (e.g. scripting)
- **Ever more powerful development tools**
 - Debugger, Profiler, Static code analysis...
- **Open source**
 - Easy to learn from
 - Easy to modify
 - Supports wider amount of experimentation

But ... **Technology is not enough**

- Better communications technologies sometimes just mean that:
 - **Problems** emerge faster ☹️
 - **Problems** are more widespread ☹️
 - **Problems** are more publicised ☹️
- Simple example: spam (and anti-spam filters)
 - Phishing, and anti-phishing detectors
- “**The wisdom of crowd**” can instead become
“**the chaos of the crowd**”

Beyond technology, communities need

- Cultivation
- Cultivation, **not control**
- Like gardening
 - Can't pull plants to make them grow faster
 - Shouldn't dig up plants to review their roots
- Communities are **ecosystems**
 - Complex structure of interconnections
 - Modify with care!
- Need: **Design, People skills, Openness**

More than technology (1)

Design (technical design & social design)

- **Design for variation without fragmentation**
 - One system for developers, many systems for users
- **Design for “architectural runway”**
 - Reward real skills in software architecture / platforms
- **Design for easy integration**
 - Reward real skills in build/test/integration
 - Reward real skills in compatibility management
- **Design for agility & responsiveness**
 - Lean processes: mandate only small number of rules
- **Design collaboration time into project schedules**
 - To keep improving the collaboration infrastructure

More than technology (2)

People skills

- Reward “collaboration engineers”
 - (Skilled middle management: *not* overhead!)
- Reward “catalysts” 😊 (aka “community managers”)
 - Speed up reactions
 - Inspire release of energy from the environment
 - Inspire emergence of new ideas from community
 - Provide alternative reaction pathways
 - Highlight visions of new ways of working (“futurist”)

More than technology (3)

Embrace the philosophy of openness

- Seek not to control but to cultivate
- Be ready to change your mind
 - Put forward your own suggestions, but be prepared to receive better answers
- Tolerate disagreement
 - (But clamp down on disagreeability)
- Elevate people with a proven track record
 - Council membership, Code committer, Expert...
 - “Code is king”. Meritocracy, not anarchy

Three levels of openness

1. **Open SDKs** (Software Development Kits)
 - Community can design add-ons and plug-ins
 - (Requires a “compatibility promise” <- skill needed!)
2. **Open Source** (recipes to build the software)
 - Community can improve the heart of the system
 - Powerful innovation at the core
3. **Open Management & Open Governance**
 - Publish the current ***draft*** roadmap (to guide planning)
 - Publish the defect list (to inform the community)
 - Publish the open questions (to inspire answers)
 - *Publish the process for reaching decisions*
 - => **Inspire the deepest trust** and **best ideas**

Building the world's most vibrant and productive developer communities

- Engage developers' hearts as well as heads
 - The most productive developers are the ones who are happiest
- Systematically review the “passion killers”
 - Put special effort into solving these issues
- Champion visible routes to profit
 - Large installed base of devices
 - Credible route to reach this market
- Engage the developers in re-designing their working environment: feedback, action, feedback...!
 - Shared sense of ownership and responsibility

The world in 2012 (1)

- Developers will be working together *much* more effectively than at the present
 - Larger numbers, multiple mindsets, new ideas
- Open SDKs, open source and open management will have created the world's most powerful innovation engines
 - Fast, regular updates to high-quality code
 - Dramatically improving usability and performance
 - Reliably introducing exciting new functionality
- Developers will be richly rewarded & celebrated

The world in 2012 (2)

- Users worldwide will make much fuller use of their mobile devices
 - Commerce, Navigation, Augmented reality, ...
 - Instant access to knowledge (read/write)
 - Instant access to community (take/give)
 - “Super Google”, “Super Facebook”, Super Twitter”
- Impacts in health, education, government...
- More and more users will be part of the process that improves their devices
- Communities triumph – through openness 😊
 - Consumers benefit, enormously



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Appendix: Recommended reading

1. [The Starfish and the Spider](#)

- The Unstoppable Power of Leaderless Organizations
- Ori Brafman and Rod Beckstrom

2. [The Art of Community](#)

- Building the New Age of Participation
- Jono Bacon

3. [Cultivating Communities of Practice](#)

- Etienne Wenger et al

4. [Influencer: The Power to Change Anything](#)

- Kerry Patterson et al

5. [Producing Open Source Software](#)

- How to Run a Successful Free Software Project
- Karl Fogel