Bringing Wikipedia to Work: Open Collaboration within Corporations

Dirk Riehle
Open Source Research
SAP Labs, LLC

Wikimania 2007
The three principles of open collaboration

- **Egalitarian**: everyone can contribute
- **Meritocratic**: contributions are valued based on quality
- **Self-organizing**: collaborators develop their own processes

Open collaboration drives wikis, open source, etc.

- Open collaboration motivates and empowers collaborators
- Open collaboration utilizes resources you never knew you had
- Open collaboration can lead to superior results

Wikipedia is based on these open collaboration principles

How to bring open collaboration (and its benefits) to work?
PART I

Open innovation…

Open space…

Open source…

Open collaboration…
Traditional “Closed” Innovation

- Technology Breakthrough
- Increased R&D Investment
- New Products and Features
- Increased Sales and Profits

From: Henry Chesbrough, Open Innovation, HBS Press, 2003
The Open Innovation Life-Cycle

1. Technology Breakthrough
2. Increased Sales and Profits
3. New Products and Features
4. New Markets and Business Models
5. Key Engineers Exit to Form Startup
6. Increased R&D Investment
7. IPO or Acquisition
8. RIP
## Principles of Closed vs. Open Innovation

### Closed Innovation

- The smart people in our field work for us
- To profit from R&D, we must discover it, develop it, and ship it
- If we discover it ourselves, we will get it to market first
- The company that gets an innovation to market first will win
- If we create the most and best ideas of the industry, we will win
- We should control our IP so that our competitors don’t profit from us

### Open Innovation

- Not all the smart people work for us; we need to work with outside people
- External R&D can create significant value
- We don’t have to originate the research to profit from it
- Building a better business model is better than getting to market first
- If we make the best use of internal and external ideas, we will win
- We should profit from other’s use of our IP and we should buy others’ IP if it advances our business model
**Principles of Open Space**

A meeting technology

- Invented about 20 years ago by Harrison Owen
- Surprisingly effective, thrives in complex situations
- Acknowledges and explicitly works with self-organization

Based on four principles and one law

- Whoever comes is the right people
- Whatever happens is the only thing that could have
- Whenever it starts is the right time
- When it’s over it’s over
- The law of two feet

Only two failure modes

- No passion of people
- Attempted process control
Community Open Source

No single corporate entity owns the source code
- Sometimes non-profit regulates affairs based on broad consensus

Interactions, copyright, patents are regulated by license
- Usually copyright remains with programmer/company

Rank and position are determined by peer evaluation
- But beware of initial conditions, commercial interests, status greed

Commercial open source follows related principles

Benefits of Community Open Source

For the software development process

- Fast and free feedback loops by engaged users
- Broad skill set of interested developers

For the businesses behind the people

- Faster, leaner, easier marketing
- Sharing of development cost, free contributions

Much of this because of the law of the two feet
Principles of Open Source

Community open source process...
- Recognizes smart people are spread around

Community open source businesses...
- Recognize significant value can come from outside work
- Recognize competition is with business models, not technology
- Recognize to win you need to combine the internal with external

Community open source...
- Also leads open innovation in important aspects
Open Source Forges and Collective Intelligence
Bringing Open Source In-House

Hewlett-Packard’s “progressive open source”
- Inner source (within firewall)
- Controlled source (in DMZ with partner access)
- Open source (on the “open” Internet)

Progressive open source to address the following problems:
- Left hand does not know what right hand is doing
- Large firms get frequently reorganized, lose institutional memory

Does open source provide the same benefits in-house as outside?

From: Dinkelacker et al, Progressive Open Source, ICSE ’02, IEEE Press
Welcome to SAP Forge!

SAP Forge is a collaboration system that was set up in order to encourage cooperative work within SAP. Why? Because the success of most projects nowadays depends on the quality of collaboration between people. This includes internal collaboration among project members and external collaboration with other groups.

SAP Forge provides tools for increased transparency and improved collaboration. It makes it easier for people to collaborate and accumulate shared knowledge, even when they are spread across multiple sites, countries, and time zones.

Specifically, SAP Forge provides:
- A single point of entry for all project-related information
- Message boards / discussion forums
- Issue trackers for bugs, feature requests, patches, etc.
- Task management
- Mailing lists
- Website hosting
- Permanent archival for file releases
- Document management
- News & announcements
- Surveys
- Source Code Management (SCM) repositories like CVS and Subversion (Perforce integration is being planned)
- PATH setup
- Total web-based administration

Participation

To get the most out of SAP Forge, you’ll need to register as a site user. This will allow you to participate fully in everything SAP Forge has to offer. You may of course browse the site without registering, but will not have access to all of its features. If you have questions or you need help, use the help forum.

Set Up Your Own Project

Register as a site user, then login and finally, register your project.

Help Improve SAP Forge

You can help make SAP Forge better by reporting bugs, suggesting features, helping other users, or writing code.

Wishing you pleasant collaboration,
The SAP Forge team
Principles of Open Collaboration

**Egalitarian:** whoever shows up is the right people
- On the Internet: whoever cares
- Within a corporation: whoever cares

**Meritocratic:** contributions are evaluated based on their merits
- Status and seniority do not grant extra rights
- Egalitarian and meritocratic view of peers

**Self-organizing:** follows its own processes
- Meta-contributions (processes) are contributions too
- Contributors ensure context fit but allow for idiosyncratic variation

Has found a straightforward expression in wikis
PART II

Wikis and open collaboration

Wikis and software projects

Seeding and gardening a wiki

More wiki best practices
What’s a wiki?

- The simplest collaboration tool that could possibly work
- (Paraphrasing the inventor, Ward Cunningham, 1995)
## Public and Corporate Uses of Wikis

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<th>Public Internet</th>
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<th>Single-Person</th>
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<td>University dept portals</td>
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<td>News portals, blogs</td>
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<td>Meeting org and notes</td>
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<td><strong>Collaboration</strong></td>
<td>Event organization</td>
<td>Educational uses</td>
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<td>Non-profit sites</td>
<td>Lightweight WfM</td>
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<td>Collaborative authoring</td>
<td>Lightweight DS</td>
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<td><strong>Knowledge Management</strong></td>
<td>FAQ, self-help</td>
<td>FAQ, self-help</td>
<td>Personal Information</td>
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<td>Ref. lists, bibliographies</td>
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<td>Mgmt (PIM)</td>
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<td>General encyclopedias</td>
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<td>Domain-specific KM</td>
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<td><strong>Communities</strong></td>
<td>Campaign sites</td>
<td>Cross-functional shared interest</td>
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<td>Newspapers</td>
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<td>Wasting time…</td>
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<td><strong>Application Platform</strong></td>
<td>Integrator for mash-ups</td>
<td>Small custom apps</td>
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<td>Tool integration protocol</td>
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Proof Points for the Importance of Wikis

Socially and culturally
- Wikipedia
- Domain-specific wikis

Commercially
- Software products
- Analyst coverage
<table>
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<th>Design Principles of Wiki</th>
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<td>Open</td>
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<td>Incremental</td>
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<td>Convergent</td>
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From: Ward Cunningham, Design Principles of Wiki, WikiSym 2006 Keynote
**Egalitarian:** Everyone is invited (within a given context)

**Meritocratic:** Contributions are evaluated based on their merits

**Self-organizing:** Wiki communities develop their own processes

For more details, please see:
Wikis in Software Companies

For internal collaboration
- Hardly a tech company without an internal wiki these days
- Standalone or integrated with other tools, for example, a forge
- Chordiant uses wikis for project management and collaboration
- IBM used a wiki to develop its IP manifesto, base of its new IP policy

To engage with the ecosystem
- Wikis are becoming a tool of open collaboration with the ecosystem
- Like internal collaboration, well integrated with ecosystem processes
- F5: DevCentral for technical users community for shared development
- SAP’s SDN wikis for knowledge sharing in SAP’s ecosystem

Addition to email, spreadsheets, file sharing, and instant messaging

Partly taken from: BusinessWeek.com, No Rest for the Wiki, March 2007
Uses in software projects

- Requirements definition
- Product and project management
- Project and system documentation
- Project reporting (by hand as well as automated)
- Describing and running functional tests (FIT)

Dominant use is for KM (from RTFM to RTFW)

- How the source code is laid out
- The meaning of some core abstractions
- How to set up your local build environment
- Where to find the reports
- And so on…
Seeding a Wiki

Have dedicated evangelist and seeder for wiki

Release only with content; don’t release empty wiki

Choose a wiki engine with a beginner’s option

Have well-working RSS feeds and reader culture

Offer templates for common tasks and common wiki pages

Reduce friction through help pages, provide training

Direct requests for information to wiki where applicable

Integrate wiki with your standard business processes

Add wiki collaboration to performance management
Gardening a Wiki

Be bold! (In editing and refactoring, from Wikipedia)
Develop and use clear conventions and categories
For contentious contents, use a talk page rather than a phone
Depending on the content, sign your contributions
Develop process along with regular contents
More Wiki Best Practices

- Allow for multiple wiki instances
- Scope of a wiki should be topic-oriented, not task-oriented
- Organize by products/components rather than projects
- Err on the side of larger but few wikis to avoid balkanization
- Don’t forget but be light on access restrictions
- Have senior management buy-in and participation
- Create credibility by bringing in outside experts
- Look to and learn from Wikipedia for working processes
**Egalitarian:** Everyone is invited (within a given context)
- Be light on access restrictions
- Don’t erect artificial boundaries
- Encourage participation

**Meritocratic:** Contributions are evaluated based on their merits
- Don’t sign contributions where unnecessary
- Don’t use status and seniority as arguments
- Have senior management accept critique like everyone else

**Self-organizing:** Wiki communities develop their own processes
- Be bold in editing and refactoring (don’t be afraid of change)
- Watch for and codify emerging (business) processes
Conclusions

We are experiencing a major shift in the IT industry

Open collaboration provides new principles of engagement

Open source and wikis are great tools for such engagement

Companies can benefit internally from open collaboration
Internet

- SDN wikis: https://www.sdn.sap.com/irj/sdn/wiki
- BusinessWeek.com, No Rest for the Wiki, March 2003

References

- Henry Chesbrough, Open Innovation, HBS Press, 2003
- Dinkelacker et al., Progressive Open Source, in ICSE ’02, IEEE Press
- Ward Cunningham, Design Principles of Wiki, WikiSym 2006 Keynote