Collaborating with Wikis

By Norman Lu and Olivier Serrat

Wikis are websites that invite voluntary contributions to organize information. They harness the power of collaborative minds to innovate faster, cocreate, and cut costs. They are now serious business.

Background

As the internet revolution presses on, computer-mediated communications through social (conversational) technologies[1] also seem to advance every day.[2] (Social sites such as MySpace and Facebook, commercial sites such as Amazon.com and eBay, and media sites such as Flickr and YouTube, to name a few applications, have become very popular.) Given the fast-rising number of these technologies, the confused might recall that people form online communities by combining one-to-one, one-to-many, and many-to-many communication modes. The commonality is that all tap the power of new information and communication technologies and the resultant interconnectivity to facilitate engagement, collaboration, and sharing of tacit knowledge. Wikis[3] are one such form of social technology, designed to enable anyone with access to contribute or modify content using a simplified markup language. They are used to create and power collaborative websites. Some believe that such open, peering, sharing, and global tools ring the death knell of old-school, inwardly focused, self-contained corporations.[4]

Definition

A wiki is a website—for corporate or personal use—that facilitates interactive,[5] self-referencing, and open-ended collection of definitions, descriptions, and references, viz.

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1 Many older media, such as mailing lists and Usenet forums, qualify as "social". These days, however, the term "social technologies" is used to describe Web 2.0 tools that are based on the internet. Typically, they include authoring, extension, link, search, signal, and tag features. (Other equally important tools do not require a web platform, such as mobile telephone communications, radio services, and real-life, face-to-face socializing methods.)

2 There is little wonder in this as the internet was conceived as a participative, social technology.

3 "Wiki" is the abbreviation of WikiWikiWeb, the name that Ward Cunningham gave in 1995 to a code he programmed to facilitate development of collaborative websites, the content of which could be edited by anyone with access to the sites. Wikiwiki means "fast, speedy" in Hawaiian.

4 According to Don Tapscott and Anthony Williams, this is because (for businesses) they (i) harness external talent, (ii) keep up with users, (iii) boost demand for complementary offerings, (iv) reduce costs, (v) shift the locus of competition, (vi) take the friction out of collaboration, and (vii) develop social capital. To reap these benefits, the "wikinomics" design principles are (i) take cues from your lead users, (ii) build critical mass, (iii) supply an infrastructure for collaboration, (iv) take time to get the structure and governance right, (v) abide by community norms, (vi) let the process evolve, and (vii) hone your collaborative mind.

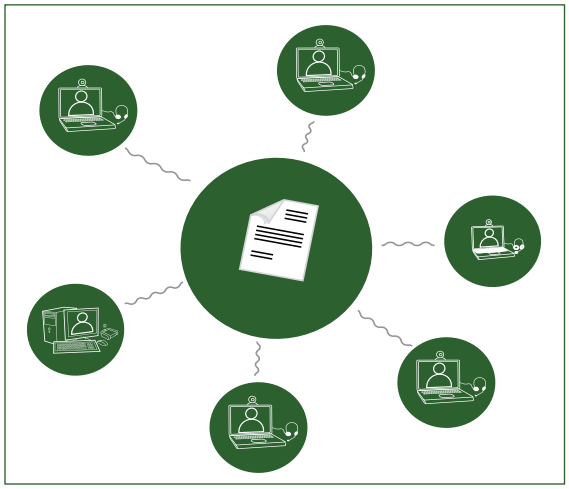
5 Since any user has the right to create, edit, and delete content, system abuses are avoided by a revision control system that tracks changes and enables the administrator to revert to previous versions.

articles placed in topics and subtopics, using a simplified markup language. Wikis first appeared in response to the difficulty of using weblogs[6] (blogs) in a collaborative context. They have evolved into an increasingly popular tool for sharing all kinds of information in a browser-independent format, and a growing number of companies offer free and subscription-based applications as well as online storage for wikis.[7]

Uses

The potential of wikis as open knowledge exchange systems is perhaps best illustrated by the rise of Wikipedia[8] since 2001. Naturally, since contributions are voluntary, the uses of a wiki are limited only by the creativity of the people who access it. Potential uses include

- primary, secondary, and tertiary education;
- corporate knowledge repositories;
- organizational directories;
- network resource databases;
- operations manuals;
- standard operating procedures;
- technical support manuals;
- guides to reordering parts and services;
- user's guides;
- cross-project overviews;
- collaborative workspaces;
- invoice tracking systems;
- logs of client work;
- lists of references;
- lists of contacts;
- to-do lists;
- frequently asked questions (FAQs).



Features

The main features of wiki software are

- **Authentication and account management.** Wiki administrators assign access privileges and determine an individual's role as reader (permitted to view documents and download content), editor (allowed to update existing content), or author (able to create new content, delete, and reorganize existing content).
- **Content management.** Wikis provide authorized users with a simple web interface to add, edit, and save content in the system. Many popular content management systems employ WYSIWYG (what you see is what you get) interfaces that resemble those of a word processor. This permits authorized users to adjust elements such as font size, style (bold, underscore, italics), and other textual elements. Wikis also accept multimedia elements such as images and online videos.
- **Revision (change) history.** Each change to a wiki document is logged by the system. This function is important for two reasons: it establishes a record of revisions for accountability purposes and it permits administrators to roll back ("undo") changes to an earlier version of the document. Wikis generally allow readers to compare page versions based on the revision history.
- **Cross-platform compatibility.** Wikis rely on standard web-authoring languages to display output.[9] No spe-

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6 Wikis and blogs are websites but the two differ in the publishing processes they follow. Blogs are typically published by a single author, who may have a certain point of view.

7 The principal advantage of relying on vendors is the low cost for start up: by leveraging a vendor's infrastructure, capital investment is minimized. Also, this hosted model eliminates the need to manage software versions as well as their upgrades and technical environments. The disadvantages of the hosted model are that it requires trust with the vendor, establishes a degree of lock-in to the service, and precludes any modification that an organization might like to effect to the original configuration of the application.

8 Wikipedia is a multilingual project to create a complete and accurate open-content encyclopedia. Available: www.wikipedia.org/

9 That is, HyperText Markup Language (HTML), the predominant markup language for web pages. It provides a means to describe the structure of text-based information in a document by denoting certain text as links, headings, paragraphs, lists, etc., and to supplement that text with interactive forms, embedded images, and other objects.

cial brand-specific software is required to read or edit a wiki, other than a standard web browser.

- **Others.** Wikipedia, the world's most popular community-edited wiki, introduced a feature called "Criticism". While anyone can edit a particular entry on Wikipedia, authorized users may publish opinions about a particular update on a document.

Challenges

The principal impediments to wiki usage relate to integration and motivation:

- **Integration.** Most organizations operate with bundled, standardized office suites such as Microsoft Office or StarOffice. These suites typically offer powerful and integrated word processing, spreadsheet, database, drawing, and presentation capabilities, and allow authorized users to copy and paste content across these. However, it is not easy for wikis to embed diagrams that users can continue to modify, such as flowcharts, while wiki tables are not as flexible or robust as Microsoft Office or StarOffice tables. Also, office applications allow faster copying and pasting of images, a process that in a wiki usually requires two steps (uploading the file and linking to it).
- **Motivation.** The most active wikis will be those that motivate their community to create and update content. Clearly, incentive programs and positive feedback in performance reviews have a role to play. Making wiki contribution part of standard deliverables will also improve its adoption rate.

A Common Scenario

In many organizations, exchanging electronic mail among multiple recipients has replaced the shuffling of paper documents. But electronic mail is quite inefficient if it is used to circulate documents for commenting or revision. An author may send a single document to, say, three peers, thereby creating three distinct copies of it. They may, in turn, respond by correcting their copy, blissfully unaware of one another's comments or revisions. The author is then given three new copies of the same document, and burdened with the Sisyphean task of synchronizing the versions.

… No More

Wikis address the circulation problems caused by electronic mail by keeping one document, but preserving various states of its evolution by recording the changes made by authors and editors. Hence, what starts as one document ends as one document. Also, by recording the history of changes, editors and authors remain focused on the same copy.

Caveat

Trust and credibility are a challenge for public wikis because these are very much shaped by the abilities of their authors. Sites such as Wikipedia have been criticized on quality and accuracy (even if founder Jimmy Wales thinks that his product measures up to the Encyclopedia Britannica). Be this as it may, Wikipedia now delivers free knowledge products from purely voluntary contributions while the content of the Encyclopedia Britannica depends on paid subscriptions: the collaborative advantage of this most famous public wiki demands respect.

Further Reading

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Don Tapscott and Anthony Williams. 2006. *Wikinomics: How Mass Collaboration Changes Everything.* Atlantic Books.

Knowledge Solutions

For further information

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