

Diabologic: “Wiki” ?

by Frank Dolinar

According to Ward Cunningham, the inventor of the wiki, a wiki is "the simplest online database that could possibly work."

“Wiki Wiki Web (aka Wiki) is an open source collaborative server technology that enables users to access, browse, and edit Hyper Text pages in a real-time context. Such servers are a critical tool for efficiently, and effectively, coordinating collaborative documents, databases, and projects. Unlike many alternatives, Wiki supports flexible, user-defined attributes and structure. It is easy to use, concordant with current technologies and standards, and requires little investment in hardware, software, or training."

"The Wiki Way: Quick Collaboration on the Web" by Bo Leuf, Ward Cunningham

In general terms, "a wiki web is a resource that a society chooses to administer. The charter for such a society defines the purpose and limits to the wiki. The resources of a wiki (both physical and intellectual) can be partitioned and repartitioned as appropriate at any given instant in time."

-- Ward Cunningham

Overview

A wiki is a website. It is, therefore, accessible by anyone with a browser. More specifically, a wiki is typically implemented as a hyper-linked knowledge base whose content can be quickly and easily edited by the people browsing it – adding content, correcting errors or inaccuracies, and providing comment.

So, a wiki is a very simple, easy-to-use, user-maintained database for searching information.

A defining characteristic of a wiki is the ease with which pages can be created and updated. This easy interaction makes a wiki an effective tool for collaborative writing. A wiki is unusual among group communication mechanisms because it allows the *organization* of contributions to be revised.

Like many simple concepts, "open editing" has some profound and subtle effects on wiki usage. Allowing users to create and edit any page in a website encourages use of the web and promotes content composition by nontechnical users.

Wiki can also refer to the software (the wiki engine) that drives the website. In technical terms, a wiki is server software that allows users to freely create and edit content using a web browser. It supports hyperlinks and provides a simple text syntax for creating new pages and links among pages. Implementations vary in their features, ease of installation, syntax, and semantics.

Some recent wiki engines use editing that translates formatting instructions, such as "bold" and "italics", into the corresponding HTML (the basic language of web pages). A wiki simplifies the process of creating HTML pages with a system that records each individual change that occurs over time, so that at any time, a page can be reverted to any of its previous states. A wiki engine may also include tools designed to provide users with an easy way to monitor the changing state of the wiki as well as a place to discuss and resolve issues – for example, the inherent disagreement over wiki content.

History

Ward Cunningham invented the wiki name and concept, and implemented the first wiki engine. ii. “Wiki” is a shortened form of the Hawaiian phrase “wiki wiki”, which is commonly used as an adjective to denote something "quick" or "fast". Wiki wiki was the first Hawaiian term Cunningham learned on his first visit to the islands, when the airport counter agent directed him to take the wiki wiki bus between terminals. According to Cunningham, "I chose wiki-wiki as an alliterative substitute for 'quick' and thereby avoided naming this stuff quick-web."

The ideas of wiki can be traced back to software Cunningham wrote in the late 1980s that used the Macintosh program HyperCard. He found it difficult to use the original method of creating links. He used the capabilities of HyperCard to add a new feature to simplify the process of creating links. The user typed link information into a data field and HyperCard added a button to indicate the link. When the button was clicked, HyperCard would move to the indicated card (location) if it existed or create the card if it did not exist.

By the late 1990s, wikis were recognized as a way to develop private- and public-knowledge bases. This potential inspired Jimmy Wales and Larry Sanger, the founders of the Nupedia encyclopedia project, to use wiki technology as a basis for an electronic encyclopedia: Wikipedia (<http://www.wikipedia.org>). The Wikipedia is the most widely recognized example of a wiki, and by far the world's largest.

In the early 2000s, wikis were increasingly being adopted by businesses as a means to support staff communication and collaboration tasks, such as project communication, intranets, and documentation – initially for technical users.

The first commercial, open source wiki, Socialtext, was launched in December of 2002.

Other open source wikis, such as MediaWiki and others, were downloaded from the Sourceforge repository over a million times by 2004. Clearly the value of such an information repository was becoming obvious to a lot of businesses and individuals. Today some companies use wikis as their *only* collaborative software and as a replacement for static intranets.

In May of 2006, there is arguably greater use of wikis behind firewalls than on the public internet.

Uses

A wiki is an easy to use knowledgebase, valuable for any situation where information within a group needs to be shared using constant, asynchronous communication. This can raise the level of discourse and increase understanding.

For example, when someone is newly hired by an organization, they quickly realize just how much there is to learn. Many organizations are providing this information in a wiki and making sure the new employee knows how to use it.

Depending on the organization and its particular needs, a wiki might be used any number of ways. If a business writes software, a wiki is often also used to:

- Identify the current software available in the workplace, as well as providing documentation and tutorial information about each software package.
- Develop software requirements for new applications, to describe the behavior of the software, to document completed applications, to provide training materials, and, in some cases, source code version control, bug tracking, and change requests.
- Provide a place and a means for software bug reporting, for analysis of what has caused the bug, and to document the correction.
- Identify what's known about current outstanding problems and suggest possible solutions.

General business uses for a wiki might include:

- Creating, maintaining, and publishing business documents, such as policies and procedures.
- Project management – providing a single place for defining and clarifying the details, creating and updating a “todo” list, and making available all the relevant scheduling and status information.
- Providing constantly updated training manuals and reference materials.
- News – a wiki is a way to consolidate information about new and useful tools, techniques, and ideas.

A wiki installed on a home computer or network is often used for note taking and record keeping, e.g. notes about things that need to be done around the house, financial records, maintenance records, scheduling data, an address book, birthdays, anniversaries, and family tree information.

The unspoken principle is that the wiki is so easy to use that it makes sense to just enter a note whenever you think of it, knowing that you'll be able to find it later because you can search for it.

The wiki also makes it extremely simple to revise the content when and if you discover an error, an inaccuracy, or something that's just incomplete.

Actually Using a Wiki

Essentially all wiki implementations allow users to create new entries by clicking on the New Topic link (or something similar) in the top or bottom toolbars. This will present a screen to allow entry of a title for the topic and for descriptive text about the topic.

The general design philosophy of a wiki is that it should be easy to correct mistakes, rather than making it difficult to make mistakes. So, wikis will typically provide a means to validate recent additions. Specifically, the "Recent Changes" page (available on almost every wiki) is a specific list identifying recent edits or a list of all the edits made within a given timeframe.

Wikis are purposefully free form. Anybody can edit just about every topic (except for some special administrative topics that require a password). If you decide that you want to edit existing content or create new content for the topic you are viewing, simply click on the 'Edit' link on the toolbar (it's sometimes placed in a set of options in the left column of the typical wiki page). In all wikis, it's encouraged that you add any content that you think is useful for a particular topic and that you fix any problems with the content, spelling, syntax, and grammar of a topic.

Wikis are a true hypertext medium, with non-linear navigational structures. Each page typically contains a large number of links to other pages.

Most wikis offer at least a title search (each page has a title) and sometimes a full-text search, which requires a database; indexed database access is necessary for high speed searches on large wikis.

Note: If you're really going to attempt to manage and validate the content of the wiki, you have to have knowledgeable moderators and adequate tools for automating the process.

Summary

Unlike centuries-old scrolls, manuscripts, and books, our electronic media are notoriously short-lived – like fireworks. What constitutes current information is ephemeral, a characteristic that has been exacerbated by the instant, worldwide communication provided by the Internet. In many cases, there are few safeguards to guarantee the accuracy, precision, verifiability, and timeliness of the information.

Wikis are easy to set up, provide a viable alternative to shared emails that keep groups of people informed, any authorized user can modify the content, and access is provided through a standard web browser.

On the other hand, there are often problems validating the content and/or keeping it up to date (as with all databases). Worse, the open philosophy wikis – of allowing anyone to edit content – does not ensure that editors are well intentioned. Wiki vandalism is a constant problem, although some sources with little relevant experience tend to exaggerate the danger. Better mechanisms for managing the content of a wiki are needed.

Conclusions

Wikis provide the benefit of continuous updates and they suffer from the problems of trying to validate entries in the constant churn of the content.

Given the widespread need for readily available knowledge bases that are easy to create, update, and use – and despite the known limitations – a wiki is a good choice to begin developing such a knowledge base.

Because the users can add to, edit, and reorganize the content, the wiki will probably grow rapidly and quickly become an indispensable tool – often described in terms such as “How did we ever get along without this?”

References

Correspondence on the Etymology of Wiki by Ward Cunningham
<http://c2.com/doc/etymology.html>

Which Open Source Wiki Works for You? by Shlomi Fish
<http://www.newsforge.com/newsvac/04/11/09/1440207.shtml>

Resources

The wiki site of Ward Cunningham and Bo Leuf (<http://wiki.org>), the inventors of wiki software.

This is described as the "canonical" list of WikiEngines. See also *TheWikiWay* (a book). The wiki engines are listed twice, by language and by name.
<http://c2.com/cgi/wiki?WikiEngines>

MediaWiki (<http://www.mediawiki.org/wiki/MediaWiki>) MediaWiki is a free software package originally written for Wikipedia but is now run on other projects of the non-profit Wikimedia Foundation and many other wikis. [NOTE: This software is only one of many available for various language & system configurations.]

A list of wiki software (from the Wikipedia)
http://en.wikipedia.org/wiki/List_of_wiki_software

A comparison of Wiki software (from the Wikipedia)
http://en.wikipedia.org/wiki/Comparison_of_wiki_software

Using a Wiki for knowledge sharing and SQL Server database documentation
<http://www.codeproject.com/asp/wiki.asp>

SourceForge (<http://www.sourceforge.org>)

West-Wind Technologies (<http://www.west-wind.com>)