Athabasca University

CENTRE FOR DISTANCE EDUCATION

Online Software Evaluation Report

TITLE :   Wiki products: a comparison
REPORT # :   R47/0412
AUTHOR(S) :   Carl Challborn & Teresa Reimann
DATE :   December 2004

Abstract

Report #27 in this series discussed the 'wiki' method of online information-sharing, and its educational uses. A wiki is browser-based collaborative writing environment, in which a community may amass and exchange information on a particular topic, and to which anyone may contribute without having web programming skills. In the current study, seven wikis are reviewed (*EditMe*, *MediaWiki*, *seedwiki, Socialtext, Swiki.net,* and *WikkiTikkiTavi/ InterWiki*). The educational potential of each is discussed.

[Note: The wiki was devised by programmer Ward Cunningham in 1995, and was named after the "Wiki-Wiki", the rapid shuttle buses at Honolulu airport.]

Introduction

Wikis are a set of web-based software applications that allows visitors to edit and contribute to the content already on the online page. Users access the content from most web browsers, and no special software is required. Common wiki uses include brainstorming, developing frequently asked questions (FAQs) and responses, collaborative drafting of positions or statements, planning, scheduling, family histories, course materials and projects. Wikis are similar to but distinct from blogs, which may, though do not always allow visitors to add comments and create an ongoing conversation. Wikis can be limited to doing this alone, but they also have other functions. For example, they can be configured, to allow users to change their previous postings: add, edit, delete, etc. Used in this way, wikis tend to be more collaborative than conversational, with content developed and owned communally by all participants.

The online wiki software does not stand alone. Most basic wiki engines (and there are many to choose from) are free, but they need to be coupled with a server/database. Enhanced features can usually be developed internally or purchased as add-ons. The choice must be made between hosting the wiki site in-house, or having it hosted elsewhere. The use of in-house servers/databases allows for software customization, but it also demands technical expertise and infrastructure. When using an external wiki host, very little technical expertise tends to be required. Some external hosts are free, while others charge for the service. As with e-mail, the commercial sites are generally the most reliable. In addition, they often have enhancements to the original open-source wiki engines. Wikis are often grouped by the language used to write them: e.g. Python, Ruby, PHP, LISP, Microsoft, Java or Perl. If the wiki is hosted externally, a distance educator need not be too concerned with the underlying code and can focus more on the features that the product offers. If the wiki is hosted internally, the selection is limited to the wiki products that are compatible with the server/database configuration internally used. The familiarity of technical support staff with the different wiki source codes (for customization) may also be a factor. It should be be noted that there is no standard markup language for wikis, and that the various wikis use different ways of storing their content; so it may be difficult to transport the content of a wiki hosted on an external server to an in-house server at a later date.

A cautionary note: for the purposes of this review, an attempt was made to install one of the free open-source wikis on a local server. All the necessary software, documentation and instructions were downloaded. According to the instructions, everything should have been simple and straightforward: but it was neither. After browsing through FAQs, wikis and blogs for more help, it became clear that many other wiki users have had similar problems. After many frustrating hours, the installation effort was abandoned. This experience provides a caution for the average educator. Unless one has special technical expertise or reliable and competent technical support, the average educator is probably advised to choose a wiki that needs no customization. This "off the shelf" product can then be hosted externally on a free or commercial 'wiki-farm'.

Product Trials

1) *EditMe* is one of the most easily used of the wikis tested in this review. It has a clean look-and-feel, is intuitive, and is not intimidating. Because *Editme* uses WYSIWYG formatting, anyone who can use a word-processor will feel at home with it. Uploading files is as easy as attaching a file to an e-mail. The product has a separate window for comments beside each work space. This permits discussions in which the users' names are displayed beside their contributions. *Editme* is password-protected, records changes to postings, and allows previous postings to be viewed. It has a wide range of features, though these do not allow the same precision of control as in, for example, *Socialtext* or *MediaWiki*. In the latter, for example, the administrator sets permissions for each page, whereas the *Editme* administrator can only give the user a level of permission that applies across all pages. It is similar with other features such as e-mailed notification of changes: e.g. one can receive these from *Editme*, but cannot configure the notifications to occur only if a specific page is altered. It should be noted that *Editme* does not properly support the *Safari* web browser, and that one cannot therefore access many of its features when using *Safari*. *Mozilla* and *Internet Explorer* are the recommended browsers. While some distance educators will need the greater control provided by other wikis, *Editme* has much to offer and may be the preferred platform for the casual user.

2) *MediaWiki i*s offered by the non-profit Wikimedia Foundation. It is written in PHP and uses MySQL. Although it can be hosted internally for a monthly fee of about $15/month, commercial operators will also host and maintain a *MediaWiki* site. The product uses the same engine as *WikiPedia*, *DisinfoPedia*, *WikiQuote*, *WikiBooks*, *WikiTravel,* and others. It is robust and has proved itself with the public. The markup style is already known to a large number of wiki users. The display is easy to navigate, and it is simple to format text from the toolbar. *MediaWiki* has many features, and a teacher needs to spend some time in configuring the settings for specific educational uses. Edits can be tracked and users' contributions recorded in a sidebar. While this feature may be a slight deviation from the collaborative, 'ego-less' spirit of wiki purists, it can be very useful for educators who need to assess the contribution and participation of individual student users. *MediaWiki* also offers sectional editing, discussion pages separate from the document working space, unicode support, printable versions of articles, and RSS feeds to inform users of recent changes. It allows the administrator to assign different levels of permission by user type and page. For example, certain pages can be locked, while others can only be edited by specific users. This is an important feature for educators who need to protect the content of their students' work from accident or damage by others. *MediaWiki* claims to support uploading of files and images, although this feature was disabled on the demonstration site used for this review. It is reassuring to know that the feature can actually be disabled, for there will be occasions when an educator may wish to prevent unwanted uploads.

3) *Seedwiki* is a hosted wiki service that provides a basic account without charge, containing up to 3 separate wikis and 50 pages in total. A "blue" account, costing $9.95 per month, provides unlimited wikis and pages, and password protection. A "red" account ($19.95 per month) provides the above features, plus the ability to create members-only wikis and to use further database options to create customized collaborative applications. The number of users is unlimited regardless of the type of account. The current evaluation tested the free version and found it simple to use, with a large amount of easily accessible support information. The user-friendly controls provide easy registration, password protection of core pages, a user list, and a list of participants currently online. To create a basic *seedwiki*, one enters the wiki's name, category, and description (e.g. sports), language preference (with a comprehensive selection), other personal information, and acceptance of the terms of service. The first page of the new wiki is displayed immediately, and all the information needed to work within the wiki. External web pages can be linked, e-mail can be sent, and files (*Word*, *Excel*, *PowerPoint,* etc.) can be attached to any page. The attachment feature allows files to be edited in a forms-compatible browser. *Seedwiki* saves a copy of every page created, allowing the user to restore damaged or deleted pages. Clear FAQ information, site map, and a documentation wiki (the *seedwiki* book) are provided. Online help and FAQ are accessible by e-mail and toll-free telephone. A 'sandbox' is available for testing and practising, and *seedwiki* developers can be asked for assistance. *Seedwiki* stores its data in unicode, and supports a wide range of fonts and RSS feeds. Cross-platform browser support is available at all subscriber levels. No software download or installation are required.

4) *Socialtext* is a communication tool geared towards the corporate environment. It is marketed as a secure way to schedule events, manage projects and share information. Some organizations report increased efficiencies due to the precipitous reduction in group e-mails after *Socialtext* was adopted as the communication channel. The main attribute distinguishing this product from the others evaluated in this review is the cost. At $30/month per user, it is likely to be beyond the reach of typical educational users even if special non-profit discounts are obtained. *Socialtext* is a good platform for collaborative work, supplying the workplace with both blog and wiki options. This can be disorienting at first, but *Socialtext* provides a fairly good tutorial and help section. It is professional, serious and secure – highly valued features – and easy to use. In less than 30 minutes, the reviewer was fully familiar with the product and set up an authentic online activity. *Socialtext* then generated passwords so that colleagues could be invited to the site to work on a draft document. Both of the invited individuals successfully logged in, found the document, and added, edited and deleted text. *Socialtext* then provided notification that these changes had been made. Neither colleague had ever used this type of software before or knew what a wiki is.

5) *Swiki.net* is a free community wiki service, based on the original *WikiWikiWeb* concept developed by Ward Cunningham. The easy sign-up procedure involves entry of user's name, e-mail address and demographic information, acceptance of the license agreement, and choice of a login name and password. The procedure takes less than a minute, and no software downloads are required. Creating the actual *Swiki* (seven options) is just as simple, takes less than 30 seconds, and requires no programming skill. Up to 25 MB of documentation can be stored in a *Swiki,* the latest version of which can be accessed from anywhere at anytime. Images can be included in a *swiki* page, documents can be attached to it, and links created from it. These features permit efficient collaboration, knowledge-sharing, and resource-tracking within user groups. The administrator can control who has password access to individual areas of the *swiki,* and can revert to a prior version of it if content is accidentally changed or deleted. Account-locking prevents users from editing content. Individual users see only the information to which they have access. Protection against password theft is available, with a rather basic level and amount of online information. Other *swiki.net* support for is available by e-mail (up to 24-hour turnaround time) or telephone.

6) *WikkiTikkiTavi* and *InterWiki*. WikkiTikkiTavi is a 'wiki engine', a free PHP script that runs wiki sites from a database of wiki pages. The product is named after Rikki Tikki Tavi, the mongoose character in Kipling's jungle stories. The site search and category lists are easy to use. The software includes preferences settings, whereby the user can provide a personal ID and time-zone for entry in the wiki history, and can change the maximum number of entries displayed in a document's history list. Other features include: variable edit box sizes; a user interface template; table syntax; RSS syndication; support for HTML anchors and references; optional splitting of *WikiNames* into page titles, headers, and text; macro plug-in features; and a 'sandbox' for practice. Two storage options allow the user to revert to previous or deleted pages: indefinite (all versions of the wiki stored), and transient (versions stored for a specific number of days). Bracketed URL links are automatically generated. The administrator can lock individual pages or the entire site, and can block specific URLs. *WikkiTikkiTavi* is compliant with [XHTML]-Strict specification, using CSS for layout instructions. *TaviInstructions* are provided for installation and configuration, but are quite confusing if one lacks programming skills. *TaviDocumentation* and *TaviFAQ* explains how to use and expand the product. *TaviSupport* is available at the open source software development site, *sourceforge.net*.

WikkiTikkiTavi links to *InterWiki*, a system that permits a wiki to be distributed across many servers.   *InterWiki* support is provided, and user-defined *InterWiki* entries can be made.

Conclusions

The wiki has clear potential in distance education, allowing users to brainstorm ideas with an unlimited number of people around the world, and to collaborate with them in exchanging files and developing web pages. The evaluation team has been particularly impressed by the comprehensive features pf *seedwiki,* and has used it to good effect in distance education situations. *EditMe* and *Swiki.net* are good alternatives. *MediaWiki* and *WikkiTikkiTavi* are comprehensive products enabling users to host their own wikis, while *InterWiki* provides a useful distribution service across multiple servers. *Socialtext* is a more costly option designed for collaborative project work in the corporate environment. It is hoped that an increasing number of educators will encourage their students to develop the simple online editing and sharing skills that make wikis useful.

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The next report in the series discusses the use of rubrics and exemplars in online text conferencing.

N.B. Owing to the speed with which web addresses become outdated, online references are not cited in this report. They are available, together with updates to the current report, at the Athabasca University software evaluation site: http://cde.athabascau.ca/softeval/. Italicized product names in this report can be assumed to be registered industrial or trademarks. JPB (Ed., Technical Reports).