Wikis--Tools for Collaborative Content Management

ASTRI
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Google Buys JotSpot, Offers Free Wiki Pages

With JotSpot purchase, Google enhances its Web-based collaboration offerings.

By Ben Chomes
Last Update: 4:14 P.M. ET Oct 9, 2006

SAN FRANCISCO (MarketWatch) - Google Inc. said Monday it's buying No. 1 Internet video-sharing website YouTube Inc. for $1.65 billion in stock. The deal is regarded as a largely defensive leading role in a burgeoning internet marketplace. Moreover, the Google/YouTube combination will bet heavily on video to attract chiming in on the deal Monday, and keep pace with their rival. On the announcement of the deal, which was announced on Oct. 9, 2006.

In a bid to grow beyond its roots as a search engine, Google has acquired JotSpot, a developer of wiki technology for collaborative Web sites.

Earlier this month, Google announced that it would offer online word processing and spreadsheet applications to its millions of Web searches. The company also has a blogging service, but hasn't yet introduced a tool for Web-based collaboration.

Now Google has filled that gap by acquiring JotSpot, according to a Tuesday post on JotSpot's blog by its co-founder and CEO, Joe Kraus. He did not disclose the terms of the deal, and Google did not answer requests for comment.

Joining Google allows us "to plug into the resources that only a company of Google's scale can offer," like a huge audience, access to world-class data centers, and a team of incredibly smart people, Kraus said in his blog.

**JotSpot's Background**

Kraus and his partner, Graham Spencer, founded JotSpot in Palo Alto, California, just three years ago, but they have already hosted one of the most popular websites.

It has 100 million videos viewed 72 million individual visitors each month, and more than 10,000 sites built for "natural partners".

Google buys YouTube

Google is acquiring video-sharing website YouTube for $1.85 billion ($883m) in shares after a weekend of speculation that a deal was in the offing.

The two companies will continue to operate independently, Google said as it announced the news on Monday.

YouTube, launched in February 2005, one of the most popular websites, has 100 million videos viewed each month, and more than 10,000 sites built for "natural partners".

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  - "end" nightmares

**Have your say**

- I do not want to run them in my browser. Thanks the info you provided about xuliffers...
Outline

- Introduction to Wikis
- The Brave New Web
- Why Wikis?
- What are Wikis?
- Wiki-related Issues
- Demos
Walking Down the Memory Lane

- 1980-91: The bold new frontier
- 1996-1998: The WWW-rush
- 1999-2001: WWW or going bust
- 2002-Present: How the WWW was won
social tools

- IRC
- instant messaging
- wikis
- collaboration
- social networks
- social recommendation & discovery
- blogs
- social bookmarks

Courtesy of Steven Warburton
Web 2.0?

• Definition of Web 2.0
• A term proposed by Tim O’Reilly to describe the contemporary web
  • Modern way of using it
  • New tide of web applications
  • “Second generation” web
# Web 1.0 vs Web 2.0

<table>
<thead>
<tr>
<th>Technology</th>
<th>Web 1.0</th>
<th>Web 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTML, Java, Flash</td>
<td>AJAX, CSS</td>
<td></td>
</tr>
<tr>
<td>Website, encyclopedia, CMS</td>
<td>Blog, wiki, wikis</td>
<td></td>
</tr>
<tr>
<td>As a book/magazine</td>
<td>As a platform/tool</td>
<td></td>
</tr>
<tr>
<td>Company-oriented</td>
<td>User-contributed</td>
<td></td>
</tr>
<tr>
<td>Usage</td>
<td>B2B and B2C</td>
<td>Audiences = Authors</td>
</tr>
<tr>
<td>Sales channel</td>
<td>Free information</td>
<td>Social network</td>
</tr>
</tbody>
</table>
Web 1.0 vs Web 2.0

Web 1.0:
- HTML and HTTP rolled out from academia
- Standardization of different protocols
- Quickly commercialized
  - The dot-com fever
  - Later on, becomes the dot-com bubble
Web 1.0 vs Web 2.0

Web 2.0:
• Gradually developed
  New things:
    • LAMP model, Blogs, CMS, Wiki, Gmail, YouTube, Skype, ...
  • A paradigm shift
    • Human-centric and to connect people
Web 2.0 Meme Map

Strategic Positioning:
- The Web as Platform

User Positioning:
- You control your own data

Core Competencies:
- Services, not packaged software
- Architecture of Participation
- Cost-effective scalability
- Remixable data source and data transformations
- Software above the level of a single device
- Harnessing collective intelligence

The Long Tail

The perpetual beta

Software that gets better the more people use it

The Right to Remix: "Some rights reserved"

Emergent: User behavior not predetermined

Granular Addressability of content

Play

Rich User Experience

Trust your users

Small Pieces Loosely Joined (web as components)

Data as the "Intel Inside"

Hackability

Flickr, del.icio.us: Tagging, not taxonomy

PageRank, eBay reputation, Amazon reviews: user as contributor

Gmail, Google Maps and AJAX: Rich User Experiences

Google AdSense: customer self-service enabling the long tail

Wikipedia: Radical Trust

BitTorrent: Radical Decentralization
Phenomenon of Web 2.0

• Notes on PHP programming
Phenomenon of Web 2.0

• Referral invitation model of Gmail et al
Phenomenon of Web 2.0

- The success of YouTube
Phenomenon of Web 2.0

- The collective effort of Wikipedia
Old vs New

- User’s contribution: MSDN vs php.net
Old vs New

• Gmail vs Apple’s .Mac Mail vs. Hotmail/Yahoo Mail
Summary

- Technology-centric vs. User-centric
- Individualistic vs. Group Behavior
- Consumer vs. Producer
- Transactional vs. Relational
- Restrictive vs. Empowerment
- Top-down vs. Bottom-up
- People-to-Machine vs. People-to-People
- Search & browse vs. Publish & subscribe
- Closed application vs. Service-oriented services
- Functionality vs. Utility
- Data vs. Value
How About Wiki?

  - Inspired by Apple’s HyperCard
  - Wikiwikiweb
  - Wikiwiki is a Hawaiian word to mean *quick*
- Wiki is closer to the original idea of web by Tim Berners-Lee: More like a notepad than a book
- Wiki = Wikipedia - pedia (knowledge content)
How About Wikipedia?

• The largest and most famous project using wiki in the world
• Dec 2005: 50,000th Chinese article
• Mar 2006: 1 millionth English article
• 1.34 million independent articles (excluding translations)
• 13.6 edits per page in average
• > 2 million wikipedians
• 9000 requests per second
• > 700Mbit/s outgoing traffic
Wiki Advantages

- Free
- Open source
- Collaborative content management
- Decentralized control of centralized data
- Simple to set-up & maintain
- Simple to create and edit text
- Extensible functionalities
- Flexible structure (ontology)
- ...
Corporate Success Stories

• Nokia has been using Socialtext wiki software for a year and a half to facilitate information exchange within its Insight & Foresight group.
• Yahoo uses Twiki software to help its development team overcome the problems associated with working from a variety of separate locations.
• Michelin China also uses Twiki as a knowledge management tool.
• Jean-Noel Simonnet, from the company's IT department, writes, "Our purpose was to share ALL the information, procedures, setup documents, so that we were less dependent on a particular staff member knowledge, so that nobody in the team has any document left in a personal directory."
• Kodak, Cingular, Disney, Motorola, and SAP are also among the notable companies with wiki success stories.
Wiki Checklist

Consider if
- To establish a company intranet quickly and cheaply without sacrificing functionality, security, or durability
- To publish a range of corporate documents in one universally accessible location and let employees manage those documents with a minimum of effort, lag, and risk of redundancy
- To manage and organize meeting notes, team agendas, and company calendars.
- Need a project management tool that is cheap (if not free), extensible, and accessible through any Web browser.
- Need a central location where shared documents can be viewed and revised by a large and/or dispersed team.

Might not be useful if
- Need to use complex file formats. Some wiki platforms can support only text or HTML files.
- Don't have a staff member who can take responsibility for its use. A wiki is only as good as its ontology (or the search engine it uses). You will need somebody who can establish conventions for naming pages and maintaining links.
- The collaborative format isn't appropriate for your group or workplace. Peer review is not always the best solution for content management.
- Looking for an exchange of views. Wikis are not the best tool for airing opinions or carrying on conversations. If that's your primary goal, use a blog instead.
What Is Wiki?

- Wiki is defined as “the simplest online database that could possibly work.”
- Wiki is a set of web pages that anyone--or at least anyone with permission--can create or edit.
- Wiki is an engine to convert wiki text into HTML.
- There are many variant of wiki engines: UseMod, Kwiki, Twiki, MoinMoin, PmWiki, MediaWiki, DokuWiki, ...
Wiki System Architecture

- Storage Backend (JDBC, Files)
- Wiki logic
- Glue between the user and storage
- A HTML frontend, often with a web framework
- A render engine that turns wiki markup into XHTML/XML
How about wiki?

• Freshmeat has 162 projects named “wiki” as of August 2006
Variety of Wikis
Comparing Wikis

<table>
<thead>
<tr>
<th>Wiki Matrix Comparison</th>
<th>Show filtered only</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wiki Features Comparison</strong></td>
<td></td>
</tr>
<tr>
<td><strong>General Features</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Version</strong></td>
<td>++2006-09-28</td>
</tr>
<tr>
<td><strong>Author</strong></td>
<td>Andreas Goerlitz</td>
</tr>
<tr>
<td><strong>URL</strong></td>
<td>WikiStat.org</td>
</tr>
<tr>
<td><strong>License</strong></td>
<td>GPL</td>
</tr>
<tr>
<td><strong>Programming Language</strong></td>
<td>PHP</td>
</tr>
<tr>
<td><strong>Data Storage</strong></td>
<td>File</td>
</tr>
<tr>
<td><strong>License Copyleft</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Intended Audience</strong></td>
<td>Private, small to medium companies</td>
</tr>
<tr>
<td><strong>System Requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Operating System</strong></td>
<td>Linux, Windows, Mac OS X, probably others</td>
</tr>
<tr>
<td><strong>Best Access</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Webserver</strong></td>
<td>Apache, IIS, Lighttpd, anything with PHP support</td>
</tr>
<tr>
<td><strong>Other Requirements</strong></td>
<td>Optional aspell and ImageMagick</td>
</tr>
<tr>
<td><strong>Datastore</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>MySQL</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>PostgreSQL</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Oracle</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>SQLite</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>BerkleyDB</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Security/Anti-Spam</strong></td>
<td>DokuWiki</td>
</tr>
<tr>
<td><strong>Page Permissions</strong></td>
<td></td>
</tr>
</tbody>
</table>
Significance of Wiki

- Separating content from presentation
- CSS: To take care of the style and layout
- Wiki: A compact and clean way to write the content in plain text format
Simplicity of Wiki

===== Web 1.0 vs Web 2.0 =====

* Web 1.0: The old web
  * Early implementation of HTTP and HTML
  * Started by research and academia (e.g. CERN) but quickly captured by commercial
  * dot-com bubble
  * Interesting things: not dot-edu, dot-org, dot-net, but dot-com

* Web 2.0: The new web
  * Started after the dot-com bubble bursted
  * Looking for a new definition of "web" when it is no longer a buzzword
  * Human-centric
  * Blogs
  * Wiki
  * Other CMS
  * Gmail
  * etc.

* Web 2.0 means a paradigm to connect people

* Evidence: The success of YouTube
Example of Wiki

Example:
Syntax for Wikipedia

Pros
• Content-centric
• Simplicity

Cons
• Many formats
• Subtle differences
• Less powerful

<table>
<thead>
<tr>
<th>Wiki text</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;italic&quot;</td>
<td>italic</td>
</tr>
<tr>
<td>&quot;&quot;bold&quot;&quot;</td>
<td>bold</td>
</tr>
<tr>
<td>&quot;<strong><strong>bold and italic</strong></strong>*&quot;</td>
<td>bold and italic</td>
</tr>
</tbody>
</table>
| ==heading==
  ===level 2===
  ====level 3====
  =====level 4====== | Headings in different sizes |
| [[Link to another page]]
[[Link|different title]] | Internal Link to another page on the wiki |
| http://www.test.org
[http://www.test.org Text] | External link
Link with description |
| [[fr:Page en français]] | Interwiki link to french Wikipedia (appears under "languages") |
| [[Category:Example]] | Add article to category "example" |
| ---- | horizontal line |
| * one
  * two
  * three | Bullet list |
| # one
  # two
  # three | Numbered list |
| [[Image:File.jpg|Text]]
[[Image:File.jpg|frame|Text]]
[[Image:File.jpg/thumb|Text]] | Image with alternative text
Image aligned right with caption
Thumbnail |
| [[Media:File.ogg]] | Download link |
| {{Name}} | Include template "Name" |
| ------ | Signature (Link to userpage) |
| ------ | Signature with timestamp |
| #REDIRECT [[Other article]] | Redirect to another article |
Strength of Wiki Engines

- Text-based
  - Easier to search, index and perform statistics
  - Cost-effective to archive the content
- Permission control
  - ACL (Access Control List)
  - .htaccess
- Change logs
  - Plain text makes us easier to find changes
  - Easier to perform version control
Permission Control List

Access Control List Management

On this page you can add and remove permissions for the current page and all the \( \text{namespaces} \) it is in. You should read the \( \text{official documentation on ACL} \) to fully understand how access control works.

The page displays all permissions that are significant for the current page. Permissions regarding other pages are not shown - to edit them \( \text{browse} \) to the according page first, then change to the ACL Administration.

Add new Entry

Permissions for \( *(\text{Namespace}) \) [ ] \( \text{Group} \) [ ]

- [ ] Read
- [ ] Edit
- [ ] Create
- [ ] Upload
- [ ] Delete

Save

Permissions for Namespace *

<table>
<thead>
<tr>
<th>Group</th>
<th>Read</th>
<th>Edit</th>
<th>Create</th>
<th>Upload</th>
<th>Delete</th>
<th>Update</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group ALL</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Group admin</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Group user</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
Wiki Usage

- Course homepages
  - Easier to update and do minor editing (e.g. homeworks, lecture notes)
  - Reduce the workload on homepage maintainence
- Conference homepages
  - Facilitates two-way communication and discussion on research
  - Example: http://sigcomm06.stanford.edu/discussion/
Wiki Usage

- Documentation and Collaboration
  - Distributed working style
  - Knowledge management and sharing
  - Timely updating
  - Revision control
- Example: Gentoo Linux Wiki
Business Tools

- JotSpot
  - Started by the co-founders of Excite
  - A cross between a wiki and a database
  - Not open-source
  - Additional features to handle forms and external data
- Socialtext
  - Based on the open-source Kwiki
  - Ships a standalone appliance with software installed
- Confluence
  - Composed of almost exclusively of open-source libraries
  - Provides licensees with the source code
Other Wiki(pedia)-related Issues

- Copyright
- Censorship
- Neutral Point of View (NPOV)
- Etiquette
- Vandalism
- Verifiability
- Governance
- Technical
  - Scalability, flexibility, expressiveness, security
Other Interesting Development

- Personal wikis
  - Wiki on a stick
- Wiki Farms
- Technical Issues
  - Installations
  - Portable devices
  - Plugins
  - Rendering
  - Ontology
  - Searching
  - WikiSync
# Wiki Farm

## MediaWiki farms

<table>
<thead>
<tr>
<th>Wiki farm</th>
<th>Price</th>
<th>Features</th>
<th>Wiki engine</th>
<th>Content license</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wikiia (free, has text ads)</td>
<td>Wikiia (formerly known as Wikicities) is a wiki hosting service created in 2004 by Jimmy Wales and Angela Beesley. All wikis have common login and preferences. Creation of a wiki is subject to approval; it must have a large potential audience and be likely to attract enough editors. Projects which overlap existing Wikiia or Wikimedia are not accepted. There is no means to close an inactive wiki, even if the community has moved elsewhere. Domains, names and identifiers are owned by Wikiia Inc, not by the respective communities. There is also a Scratchpad wiki subdivided in categories (&quot;mini-wikis&quot;) that welcomes all content.</td>
<td>MediaWiki 1.7alpha</td>
<td>GFDL</td>
<td></td>
</tr>
</tbody>
</table>

## Other wiki farms

Most of the wiki farms below have WYSIWYG or rich text editors that don't require learning or using Wikitext markup, which is what the above MediaWiki farms employ for editing pages. Those few that do not have editors will likely have their own Wikitext markup language that will be similar to the one used by Wikipedia.

<table>
<thead>
<tr>
<th>Wiki farm</th>
<th>Price</th>
<th>Features</th>
<th>Wiki engine</th>
<th>Content license</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Desktop</td>
<td>free and paid options</td>
<td>WYSIWYG editing, access control, full-text search, document management, light project management, database, calendaring, single sign-on to multiple projects, project templates, rss enabled, ideal for team collaboration</td>
<td>Custom</td>
<td></td>
</tr>
<tr>
<td>PBwiki</td>
<td>free and paid options</td>
<td>Hosts simple, password-protected wikis on pbwiki.com subdomain. No page limits, SSL, RSS &amp; Atom, ZIP backups, diff, over 90,000 wikis already hosted, six wiki &quot;skins&quot;, file uploads, page hiding, page locking</td>
<td>custom wiki engine</td>
<td></td>
</tr>
<tr>
<td>ProjectForum</td>
<td>paid</td>
<td></td>
<td>custom wiki engine</td>
<td></td>
</tr>
<tr>
<td>Socialtext</td>
<td>free and paid options</td>
<td></td>
<td>SocialText Open</td>
<td></td>
</tr>
<tr>
<td>Wetpaint</td>
<td>free</td>
<td>Features: True WYSIWYG Editing, Custom Page Hierarchies, Comment and Reply Forums with Comment Ratings, Access Control, Keyword Search, Tags, Tag Filtering, Skins, RSS, Page Locking, Profiles, Site Activity Report, Page and Comment Watching</td>
<td>Custom Java-based engine</td>
<td>Creative Commons</td>
</tr>
<tr>
<td>WikyBlog</td>
<td>free</td>
<td>Wikipedia style syntax, ajax enhanced tabbed interface, threaded comments, file upload, tagging, google maps integrated</td>
<td>WikyBlog</td>
<td>Choice</td>
</tr>
</tbody>
</table>
The Future of Web and Wiki

Nothing great was ever achieved without enthusiasm.

Ralph Waldo Emerson

- Web 3.0?
  - Swinging of the pendulum
  - Convergence of monolithic businesses vs. distributed individualism with group behavior?

- Wiki
  - Incorporate more advanced technologies
  - Wiki Mining of content, logs, temporal information, etc.
References