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Wikis

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What is a wiki?

As a widely applied Web2.0 technology, wikis are open, dynamic websites with collaboratively constructed knowledge, information, and resources, which are freely available to any Internet user. The first wiki, "wikiwikiweb" was created and made available in March 1995 by Ward Cuningham, which soon witnessed the booming phenomenon of wikis worldwide. Originated in Hawaiian, "wiki" means quick, and it is backronym of What I Know Is (Wikipedia, 2009), reflecting its nature of open, social construction. As a typical Web 2.0 technology, wikis allow users virtually from anywhere to create and contribute to any wiki of their choice. At the same time, wikis enable users of the technology to critically review and collaboratively revise the wiki they use. As a result, users can quickly and frequently update information, fix errors, and constantly extend the knowledge network.

Wikis are essentially dynamic databases for creating, sharing, updating, using and searching knowledge and information, which also promote meaningful associations among different topics with hyperlinks. As indicated in its name, wikis provide a quick way for all Internet users to share knowledge through collaborative efforts (Leuf & Cunningham, 2001). The level of openness may vary, as Lamb (2004) describes a continuum of wiki formats: at one end, there are wikis open for anonymous authoring; at the other end, there are wikis with restricted access, private workspace, hierarchical organisation, and even integration with centralised content management systems.

Benefits

Wikis provide a wide variety of tools, resources and opportunities for teaching and learning. For example, Wikimedia Foundation (2009) operates several online collaborative wiki projects, including Wikipedia, Wiktionary, Wikiquote, Wikibooks, Wikijunior, Wikisource, Wikimedia Commons, Wikispecies, Wikinews, Wikiversity, Meta-Wiki and more. These Wikimedia projects provide a wide range of tools, content, and resources for learners and educators, such as encyclopedia, media resources, quotes, books and so forth. More importantly, learner-generated wikis represent their learning outcomes, and such assignments and activities provide continuous opportunities for interactive learning,

collaboration and knowledge construction beyond traditional classrooms.

As powerful cognitive tools (Jonassen, 2000; Jonassen & Howland, 2003), wikis allow learners to contribute actively to knowledge construction, networking and collaboration. A wiki is an ever-growing web of knowledge that any user may append. A wiki may be reused by many class sessions and different groups of learners, with content being added to and modified on a continual basis. Wiki-related learning activities enable collaborations among different learners, instructors, classes, schools, universities, and experts from anywhere across the globe (Bonk & Zhang, 2008). Wiki applications facilitate teaching and learning by providing shared knowledge repositories that are constantly updated and corrected. Learners may not only use existing wikis for information and resources, but also create new wikis or add to existing ones, which further empowers them with a strong sense of ownership in the learning process. Engaged in a wiki project, such as writing a wikibook, learners have opportunities to share knowledge through active, meaningful, and collaborative learning and research. Changing from passive knowledge receivers to knowledge creators, learners are highly motivated to work and collaborate continuously in wiki-related learning tasks (Watson, Boudreau, York, Greiner, & Wynn, 2008). Wiki-related learning activities may also address the demanding needs of generational learners (Zhang & Bonk, in press) and different types of learning preferences and learner needs (Bonk & Zhang, 2008; Zhang &Bonk, 2008). The easy function of incorporating multimedia also enables learners to add various forms of expressions in wikis, addressing multiple intelligences (Zhang &

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Bonk) without complex technical operations (Choy & Ng, 2007).

Educational applications of wikis

K-12

Wikis may supplement traditional face to face classes by providing information and resources, or be integrated as a part of hybrid or blended courses, or as a main component of an online environment. Wikis may also be used as an alternative to a course management system (CMS) (e.g., Moodle, Blackboard, etc.). For example, wikis are employed to engage students in inquiry-based learning in multiple disciplines (Engstrom & Jewett, 2005; Stahmer, 2006) or as a major portal of school-wide curriculum (e.g., http://west-wood.wikispaces.com). Outside of the classroom, teachers and administrators use wikis for school planning, parental communication, and professional development.

Higher education

In higher education, wikis are deployed as an alternative to discussion boards on CMS (Bold, 2006) and for a variety of learning activities (e.g., Bonk & Zhang, 2008; Zhang & Bonk, 2008, in press). Additionally, wikis are replacing traditional CMS, such as the one at Brown University's Neurobiology site (http://tinyurl.com/ men8m6). Wikis are also created for community building and social networking at the organisational level (e.g., the Davis Wiki at: http://daviswiki.org/).

Corporation

Corporations adopt wikis to create robust intranets for organisational knowledge management. This is especially useful with

the global communities that businesses could reach. Companies also employ wikis to add to or replace content management systems and to provide information to consumers. Other wiki applications include providing templates for reports and memos, and allow virtual teams to share information and collaborate on projects from anyway at any time.

Government

Increasingly more governments and government agencies have established wikis to communicate with the public. For example, the Government Transition Wiki (http://govtransition2009.wik.is/) is intended to make the initial phase of the Obama Whitehouse transparent to anyone interested. The Collaborative Work Environment wiki (http://colab.cim3. net/cgi-bin/wiki.pl/) serves citizens by providing communities of practice and linking to other governmental communities, news, and events. Such wikis may be used in authentic case based learning, dynamic analyses, and other course projects (Bonk & Zhang, 2008).

Non-profit organisation

Non-profit organisations utilise wikis for a variety of purposes, such as fund raising, engaging volunteers, training and education, community building, evaluation and more. The bamboo project lists and explains how non-profits can use Web 2.0 tools at http://tinyurl.com/nbduf3. A wiki event hosted by TechSoup at http:// tinyurl.com/ azaler invited users to share knowledge and trade tips about using wikis. As related to education, online charity, DonorsChoose.org uses a wiki to connect classrooms in need with individuals who want to help. Teachers are able to ask for classroom project materials, users are able to give to specific projects and students learn with the aid of the donations.

Summary

Increasingly applied to all levels and forms of education, wikis bring great opportunities for teaching and learning, and serve as powerful cognitive tools for exploring, searching, creating, constructing and updating knowledge. Wikis not only provide free content, tools and resources for learning, but also stimulate different ways of knowledge construction, sharing and networking. Learner-generated wikis benefit learners as they create it, as well as into the future as they continue to edit and learn from the constant updates of the knowledge base. Because of their open nature, wikis face issues of versioning, quality and content control. Accordingly, some wikis archiving older versions for revisiting as applicable (Trentin, 2009), require owner approval for changes, or restrict access to specific users or groups. For educators, challenges such as how to appropriately assess learner contribution and participation in wiki creations (Wheeler, Yaomans, & Wheeler, 2008) are yet to be addressed in practice as well as research. With more research conducted on its learning benefits and challenges, wikis will be utilised more widely and more wisely in global education.

Wiki examples

Wikipedia: http://www.wikipedia.org/
Wikibooks: http://en.wikibooks.org/.
Wikinews: http://wikinews.org/
Wikiquote: http://wikiquote.org/
Wikisource, an online library of free content publications:
http://wikisource.org/
Wikispecies: http://species. wikimedia. org/
Wikiversity, providing learning resources, learning projects, and researchfor use in all levels, types, and styles of education from pre-school to university, including

professional training and informal learning: http://en.wikiversity.org/wiki/Wikiversity:Main_Page

Wiktionary: http://en.wiktionary.org/ wiki/Wiktionary:Main_Page

Wikimedia Commons:http://commons.wikimedia.org/wiki/Main_Page

Wikispaces: http://www.wikispaces.com/

PBWorks: http://pbworks.com/academic.wiki

Wikis in Education: http://wikisineducation.wetpaint.com/?t=anon

Seedwiki, a wiki farm, a place where people can create web sites and edit them directly in their browser:http://www.seedwiki.com/ -.

TikiWiki: http://tikiwiki.org/tiki-view_articles.php

Wiki Resources: https://www.socialtext.net/medialiteracy/index.cgi?wiki_resources , a list of wiki resources, such as Wikis, comparative lists, wiki communities, and wikis in the classroom

50+ Web 2.0 ways to tell a story: http://cogdogroo.wikispaces.com/50+Ways

Web 2. 0 Wiki: http://en.wikibooks.org/wiki/Web_2.0_and_Emerging_Learning_Technologies -

Student created Wikis http://wikisineducation.wetpaint.com/page/Student+Created+Wikis

A Whole New Mind Story: http://awnm.pbworks.com/FrontPage

Our Environment - http://ourenvironment.tk/

A wiki comparing wiki farms: http://en.wikipedia.org/wiki/Comparison_of_ wiki_farms

A list of notable wikis: http://en.wikipedia.org/wiki/List_of_wikis

A comparison of wiki software: http://en.wikipedia.org/wiki/ Comparison_of_ wiki_software

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