

## **Wikipedia: a Blessing or a Curse?**

It seems that references to Wikipedia are everywhere! A quick search of Google yields over 200 million results. But, what is this Wikipedia thing and just where did it come from? Is it a good thing or a bad thing? Is it here to stay or will it go the way of the dodo bird? What can the academic, scientific, and library communities do to help influence this future? In this paper I attempt to answer these and other thought-provoking questions, providing an overview of what claims to be the “largest reference Web site on the Internet” (“About,” 2006, December 6).

First let’s look at the etymology of the word Wikipedia. It is a combination of the Hawaiian term “Wiki” meaning “quick” (Cunningham, 2003, November) and “Encyclopedia” meaning “a reference source containing information on a variety of topics” (University of Connecticut Libraries, 2006). Encyclopedia has been a common term for some time, but how did it become intertwined with the Hawaiian word Wiki? Ward Cunningham, software engineer and computer scientist, is credited with coining the term and developing the first Wiki in 1995. Cunningham was working on a project to develop pattern languages at the Portland Pattern Repository. He created the Wiki as a way for members of his project team to improve collaboration. Cunningham defines a Wiki as “a freely expandable collection of interlinked Web “pages.” A hypertext system for storing and modifying information – a database, where each page is easily editable by any user with a forms-capable Web browser client” (Leuf & Cunningham, 2001, p. 14). The key point in this definition is the idea that anyone with a Web browser can edit the contents of the Wiki. From a project collaboration standpoint, this really

seems like a good thing. But what if the project that is being collaborated upon is the collection and recording of the entirety of human knowledge? Enter Wikipedia.

Actually, in order to fully explain the genesis of Wikipedia, we need to step back and talk about its precursor, Nupedia. Nupedia was launched in 2000 by Jimmy Wales, a retired options-trader. Wales had altruistic notions, striving to provide children who did not have an encyclopedia at home with a way to access reliable information freely online (Brafman & Beckstrom, 2006, p. 73). One wonders why Wales did not choose to partner with libraries, focusing his resources on increasing library awareness and usage, or perhaps increasing the collections of encyclopedias at public libraries around the country. I guess, in 2000, it just seemed natural to jump on the dot-com bandwagon and create some type of new Web site. Had Wales let that wagon pass him by, would the future have played out differently? (An interesting question, but not one I can address in this paper.)

From the start, the creation of Nupedia content mirrored that of traditional encyclopedias. Experts in various fields were assigned to author articles, and the material in these articles was vetted via an extensive peer review process. In fact, seven steps were required before an article was officially published on Nupedia (Brafman & Beckstrom, 2006, p. 73). While this process ensured that only scholarly work was published, the extensiveness of it failed to provide much content, making the “free encyclopedia” fairly free of content. Between March 2000 and December 2001, Nupedia published 22 articles, each of these having completed the full seven-step process. By the time Nupedia ceased operation in September 2003, only 2 additional

articles had been published, bringing the total of completed articles up to 24 ("Nupedia," 2006, December 6).

One of the reasons for Nupedia's demise was the adoption of Wiki technology by Larry Sanger, the editor-in-chief at Nupedia. After less than a year, Wales and Sanger realized that the extensive seven-step content creation process was going to limit the number of articles that could be produced in a timely manner. Believing that the complex scholarly review process was still needed, however, they did not consider simplifying it. Instead, they sought to maintain the involvement of all those who had been recruited to contribute to Nupedia. The Wiki technology provided a way for this large group of motivated and talented Nupedia-devotees to continue their work and begin to collaborate on articles (Sanger, 2005, April 18). Thus, in January 2001, Wikipedia "the free encyclopedia that anyone can edit" was born. What started as a side project, took on a life of its own, growing much larger than Nupedia, much more quickly. Eventually, all focus shifted to Wikipedia and Nupedia was dissolved.

So how does Wikipedia actually work? How does someone edit content? How does someone else looking at a page know what has been changed? How does the casual user who just wants to know the capital of Iceland find out the answer to their question? As with most things, Wikipedia has changed some of the way it works over time. I will focus primarily on how it works today, discussing areas that have changed when relevant.

When first launching the Wikipedia home page ([www.wikipedia.org](http://www.wikipedia.org)) one is greeted by the Wikipedia logo, encircled by a variety of languages. The English version is the largest,

containing more than 1.5 million articles ("Wikipedia," n.d.). Clicking through to any of the language-specific versions brings up the main Wikipedia page for that language.

As with any online reference source, a search box is provided to help users navigate to articles that will hopefully satisfy an information need. This process is straight forward enough: results are retrieved quickly; they are ranked in relevance order; and each article retrieved is filled with hyperlinks, the 21<sup>st</sup> century version of "See Also." The Web pages are visually appealing and look professional. Generally the entries I read seemed to answer my questions and were understandable. This is the "kinder, gentler" encyclopedia.

Noticeably absent from any of the Wikipedia pages are advertisements or flashing boxes telling me that I have won something amazing. (I do miss those. You never know when that extra [insert prize here] will come in handy.) The entire site is funded through user donations. This ease of use, apparent completeness (I found the things I was searching for), free access, professional appearance, and domain name of ".org" presents a face of credibility. Nowhere on the main page or during any of my searches was it obvious that this encyclopedia was too different from the World Book of my childhood. I do realize that the tag line says "the free encyclopedia that anyone can edit," but in reality, if you are just searching for information and find the answer to your question, that little tag line and its implications are quite secondary. If I didn't know better, I would think that this would become the only web site I'd ever need; that it would be appropriate for me in all situations.

Nothing is really that simple, however. So how exactly do all those nice articles actually get posted on Wikipedia? Who are these nice encyclopedia writers who provide me with cocktail party trivia free of charge? They are everyone and no one. As explained earlier, a Wiki is driven by software that allows collaboration to take place among anyone with an Internet browser. Wiki is also indicative of a culture. This culture strives to create a level playing field for all contributors on a subject. Attainment of a Ph. D. or a G.E.D. provides the same status within the world of Wikipedia. To be sure, contributors to Wikipedia fall into both these camps and many others in between.

While WHO can contribute to Wikipedia is not legislated in any way, the WHAT and HOW of contributions are held to a series of standards. First and foremost, Wikipedia considers itself to be an encyclopedia. As such, it is “a compendium aiming to convey information on all branches of knowledge.” It is not: a place for uncited material; a place to publish new, previously unpublished ideas; or a place to publish opinions (“Wikipedia is an encyclopedia,” 2006, October 14). All material written for Wikipedia is supposed to be written from a neutral point of view and contain verifiable content that has already been published in a reliable source (“About,” 2006, December 6). Notably, the site does say that, “The threshold for inclusion in Wikipedia is verifiability not truth” (“Verifiability,” 2006, December 7). I find that statement particularly troubling. On the one hand we are told that material must have already been published in a “reliable source,” yet on the other we are told that verifiability does not equal truth. I wonder how reliability is defined. The other thing I find a bit disconcerting is that all of the pages which lay out the standards by which content is to be created are also editable by anyone in the Wikipedia community. There are disclaimers on the pages stating that these are

the policies that have been agreed upon by community consensus, but several of the sites I referenced were actually edited within a day or two of when I accessed them. That gives me a somewhat uneasy feeling – like perhaps the “rules” (such that they are) are always changing.

But clearly, thousands of people contribute to Wikipedia every day. Perhaps they feel the uneasiness that tugs at the back of my mind, or perhaps they are actively working to ensure that all the entries in Wikipedia are verifiable and true. Vaughan Bell, a London-based neurophysiologist and frequent Wikipedia contributor would fall into the latter camp. Bell has been working over the last two years in collaboration with several others on the subject of schizophrenia. Even though Bell is clearly an expert on the subject, he welcomes the contributions of others, regardless of academic background or attainment. “It’s about the quality of what you do, not who you are,” he explains. (Giles, 2005a) He is not the “lead” on the article, nor does he have the final “say” over what is published. All contributors are considered equal.

This type of arrangement is really at the kernel of the Wiki concept. A standard encyclopedia or academic journal would have its content vetted by a peer-review process, with “peer” defined as someone with proven expertise and educational attainment in a field. After review, an article would be published. Wikipedia has its content vetted daily, sometimes hourly, by a peer-review process, but this time, every Wikipedia user is considered a “peer.” Thus, no amount of credentialing makes someone more or less qualified to throw in their two cents. And, rather than a final, approved version of an article (or a set of standards for that matter) being published and remaining static, a new, and hopefully improved, version is constantly being

updated. Devoted Wikipedia users see this as a great thing, pointing out that since the authors and editors of articles come from all over the world, a reader of any given article is truly given a world view, something that would not necessarily be achievable in a print encyclopedia.

If all interactions flowed as described by Dr. Bell and others, one could assume that perhaps the best minds in the world were all at work, hashing out the details, coming to consensus, and ultimately creating the best product for use by all of humankind. While I'm sure this does happen with some of the entries on Wikipedia, there are several documented cases where things just haven't worked so smoothly. William Connolley, a researcher with the British Antarctic Survey, is an expert on global warming and a frequent contributor to Wikipedia. Because he writes on such a "hot" topic (no pun intended), several others also frequently contribute to and modify Connolley's prose. At one point, these interactions deteriorated to a condition where individuals were constantly undoing each others changes. (This is called a "revert war" in the world of Wiki.) At this point, the Wikipedia administrators were consulted, although it took over 3 months for a decision and subsequent course of action to ensue (Giles, 2005a).

A second example of Wikipedia gone awry came to light in November, 2005. John Seigenthaler, a retired journalist and founder of the Freedom Forum First Amendment Center at Vanderbilt, wrote an editorial in USA Today exposing the fact that a false biography had been posted about him on Wikipedia. The biography, posted in May 2005, stated that he had potentially conspired to kill both John and Robert Kennedy and had lived in the Soviet Union for 13 years. Seigenthaler discovered this slanderous information in October 2005 and had it

removed from Wikipedia. In looking at the edit history of the entry, the only modification that had been made since the original posting was a spelling correction (Stigenthaler, 2005, November 30). Thus, the spirited discussion, collaborative nature, and compilation of the best of human knowledge did not happen in this instance. This type of blatant fabrication is considered “vandalism” in the world of Wiki. It is frowned upon, and dealt with when identified through the suspension of user privileges or the locking of pages. Seigenthaler’s point, however, is that there is no systemic process to correct errors. They must be “happened upon” by someone who knows that the information is fraudulent in order for a change to be made. (Note: After the editorial was published, the vandal ultimately confessed. He admitted that it had all started as a joke when he was trying to shock a colleague by posting the information (Seelye, 2005, December 11).)

These examples illustrate both sides of the Wiki concept. As a casual user of the information, however, how would I know that the entry for global warming was constantly being changed or that the schizophrenia contributors have all agreed amongst themselves (and perhaps their multiple personalities) to go with what has been written? How would I know that the information posted about John Seigenthaler was completely false?

Wikipedia attempts to answer some of these questions. A “Discussion” tab goes along with each article. This is a place where users with interest in a particular area are supposed to “talk” about proposed changes or inaccuracies in an entry. It is also a place to propose the type of information that would be helpful to an entry, even if you yourself cannot provide it. So, in reviewing an article, one would be wise to consult the discussion tab, as well as the article itself.

As a result of the recent controversies, Wikipedia now has instituted the ability to “lock” a page to stop the constant edits. In addition, a group of appointed volunteer editors monitor the system, looking for inaccurate information (Hafner, 2006, June 17). While these measures do provide some sense of oversight, the system is still considered open, and as such, the information presented needs to be evaluated beyond what one would do in a standard reference source.

As part of the overview and help sections of the system, Wikipedia does attempt to provide guidelines for how to evaluate information found on the site. This is Wikipedia’s attempt at teaching information literacy. In reality, the lessons presented are quite good. Users are encouraged to look at the citations cited by authors, references to outside sources, (giving particular attention to print sources), and the tone of the article. Is it well written and understandable? Does there appear to be a bias? In addition, the editing history and discussion threads are noted as important. In the cases of editing history, the older an article, the more likely it is to be accurate, as a larger percentage of the community would have had a chance to review it (“Researching with Wikipedia,” 2006, December 4).

While all of the things noted are appropriate to review, and some can carry over to other reference sources, it does seem a bit strange to have to consider so much when accessing a reference source. In the world of print encyclopedias (or their online versions), a reference source as a whole and the individual pieces have already been evaluated. Once the work has been deemed “worthy,” one may feel confident using its secrets. Not so with the world of Wikipedia. Since each article is authored by multiple people at any given time, a thoughtful

information analysis must be brought to bear again and again. This difference is acknowledged by Wikipedia, but nonetheless, tedious.

In December 2005, just as the Seigenthaler scandal was breaking, the journal *Nature* released a study it had done comparing the accuracy of 42 Wikipedia articles to similar articles in *Encyclopedia Britannica*. The results were liberating for some and perplexing for others. *Nature* found that both Wikipedia and *Britannica* contained errors in some of the articles submitted for review. On average, a Wikipedia article contained four errors of some type per article, while the *Britannica* articles contained, on average, three errors of some type (Giles, 2005b, p. 900). It is certainly of note that the error rate between the two sources is so close, but I, personally, was surprised that the *Britannica* rate was so high. In my mind it made *Britannica* seem error prone, rather than making Wikipedia seem reliable.

In March 2006, *Britannica* issued a response to this study, refuting the claims made by the *Nature* article. *Britannica* contends that the reviewers were not sent complete versions of all articles to review; that some of the articles selected were from the Year Book or Young Adult versions (which are not apt to be as complete); and that facts identified as erroneous by the reviewers are actually substantiated by other information that *Britannica* has (*Encyclopedia Britannica*, 2006, March). Before I read this response, I was a bit skeptical, but I can really see *Britannica*'s point. I do believe that the study by *Nature* may have been flawed, and as a result, the claims of "almost as good" could actually be unsubstantiated.

After reviewing just a small portion of the body of literature on Wikipedia, as well as the content on Wikipedia itself, I'm not sure what I think. Wikipedia seems to be very open about what it is, what it is not, and the controversy surrounding its use and content. In fact, I started my research for this paper in the EBSCO databases, identifying quite a few sources for Wikipedia risks and controversy. I waited until after I had done my "scholarly" research to begin reviewing the Wikipedia site itself. I was surprised to find references to all the controversy, as well as quite a few links to articles discussing it. Several of the links I found were to articles I had initially identified via EBSCO. This one experience might lead me to conclude that Wikipedia was well on the way to being a non-partisan, verifiable source with citations to reliable journals. I then look at my own citations for this paper. Any time I cited a Web page from Wikipedia I wasn't able to list an author (should I have put Wikipedians?), and oftentimes, the "date of last update" was within a few days of my "date of access." Will this information still be there tomorrow? Who is ultimately responsible for its accuracy? Everyone and no one.

So what can scientists, academics and librarians do about this popular quasi-reference source? With over 1.5 million entries, Wikipedia does not seem to be going away anytime soon. Thus, as the old English proverb says, "If you can't beat them, join them" ("English proverbs - Wikiquote," 2006, December 5)<sup>1</sup>. Here are a few thoughts that might go a long way toward increasing the status of Wikipedia in the reference world.

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<sup>1</sup> I'm citing a Wikipedia sister site called Wikiquote. It is built on many of the same premises as Wikipedia. Thus, I was able to find the quote, but no real information as to its origins, other than "English Proverb," which I'm not even sure is right. It seems fitting that in this discussion about ways to make Wikipedia more accurate, I would quote from an unsubstantiated source.

- Encourage the use of Wikipedia among colleagues. If the people who perceive themselves to be experts in a given subject post their knowledge, the overall accuracy of the source is improved.
- Require students who have completed research papers in college to find entries on Wikipedia about their topic and review these entries for accuracy. In addition to error correction, the students could be required to update any citations, specifically focusing on providing verification via print sources.
- Add a step to the publishing process that after an article has been accepted and published in a peer-review journal, its authors create appropriate entries on Wikipedia. This continues to improve the accuracy of entries by providing high quality, scholarly citations.
- Enroll Library Science students in the role of policing content on a given topic. This seems like a natural match with the discipline.
- Create a “Library Seal of Approval” and place it on all pages reviewed by experts. This does go against the Wiki culture somewhat, as a “seal of approval” would make some contributors more equal than others. Perhaps having a user name defined as “Librarian” with associated information about this users – i.e. information expert, etc – would be an appropriate substitute.
- Use the entries in Wikipedia, in both content and method of creation, as a text book for Information Literacy. In a post to the Humanist Discussion Group on 12/515/06, Willard McCarty of King’s College, London, advocates just this when he says,

“It seems to me that the most valuable lesson to come from the recent troubles with Wikipedia is not to move back into the gated community of proper vetted

reference books, [...] but to deal with the pedagogical problem of critical reasoning.”

Whether it is a Wikipedia article, a news telecast, or a scientific study, each needs to be evaluated for accuracy. Critical reasoning and information evaluation skills are something that everyone needs to know.

The world of information will never be the same. Perhaps with some of these suggestions, Wikipedia might become a venerable reference ally.

## References

- About. (2006, December 6). *In Wikipedia, the Free Encyclopedia* Retrieved December 7, 2006, from <http://en.wikipedia.org/wiki/Wikipedia:About>
- Brafman, O., & Beckstrom, R. A. (2006). *The Starfish and the Spider: The Unstoppable Power of Leaderless Organizations*. New York: Portfolio.
- Cunningham, W. (2003, November). Correspondance on the Etymology of Wiki. Retrieved December 7, 2006, from <http://c2.com/doc/etymology.html>
- Encyclopedia Britannica, Inc. (2006, March). Fatally Flawed: Refuting the recent study on encyclopedic accuracy by the journal *Nature*. Retrieved December 6, 2006, from [http://corporate.britannica.com/britannica\\_nature\\_response.pdf](http://corporate.britannica.com/britannica_nature_response.pdf)
- English proverbs - Wikiquote. (2006, December 5). Retrieved December 7, 2006, from [http://en.wikiquote.org/wiki/English\\_proverbs](http://en.wikiquote.org/wiki/English_proverbs)
- Giles, J. (2005a). Challenges of being a Wikipedian. *Nature*, 438(7070), 901.
- Giles, J. (2005b). Internet encyclopedias go head to head. *Nature*, 438(7070), 900-901.
- Hafner, K. (2006, June 17). Growing Wikipedia Revises Its "Anyone Can Edit" Policy. *The New York Times*, p. C9.
- Leuf, B., & Cunningham, W. (2001). *The Wiki Way: Quick Collaboration on the Web*. Boston: Addison-Wesley Professional.
- Nupedia. (2006, December 6). *In Wikipedia, the Free Encyclopedia* Retrieved December 7, 2006, from <http://en.wikipedia.org/wiki/Nupedia>
- Researching with Wikipedia. (2006, December 4). *In Wikipedia, the Free Encyclopedia* Retrieved December 7, 2006, from *In Wikipedia, the Free Encyclopedia*
- Sanger, L. (2005, April 18). The Early History of Nupedia and Wikipedia: A Memoir. Retrieved December 7, 2006, from <http://features.slashdot.org/article.pl?sid=05/04/18/164213&tid=95&tid=149&tid=9>
- Seelye, K. Q. (2005, December 11). Wikipedia prankster confesses. *The Seattle Times*.
- Stigenthaler, J. (2005, November 30). A false Wikipedia "biography". *USA Today*, p. 11A.
- University of Connecticut Libraries. (2006). Glossary of Library Terms. Retrieved December 6, 2006, from <http://www.lib.uconn.edu/using/tutorials/instruction/glossary.htm>
- Verifiability. (2006, December 7). *In Wikipedia, the Free Encyclopedia* Retrieved December 7, 2006, from <http://en.wikipedia.org/wiki/Wikipedia:Verifiability>
- Wikipedia. (n.d.). *In Wikipedia, the Free Encyclopedia* Retrieved December 7, 2006, from <http://www.wikipedia.org/>
- Wikipedia is an encyclopedia. (2006, October 14). *In Wikipedia, the Free Encyclopedia* Retrieved December 7, 2006, from [http://en.wikipedia.org/wiki/Wikipedia:Wikipedia\\_is\\_an\\_encyclopedia](http://en.wikipedia.org/wiki/Wikipedia:Wikipedia_is_an_encyclopedia)