BRIEFINGS FOR FACULTY AND ADMINISTRATORS

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Wikipedia and the Challenge of Read/Write Culture

by Barbara Fister

Editor's note: The author describes in vivid detail how Wikipedia and other social tools are affecting the behavior of students. These new tools also impact the curriculum of campus information literacy courses usually taught by libraries working in partnership with faculty. Library Issues' articles usually focus on more library-oriented topics, but we made an exception here because the Wikipedia phenomenon is important not only for libraries but also for faculty and administrators across the campus.

ne of the most memorable brown bag lunch discussions held on our campus in the past year was sparked by a question that turned out to be on just about everyone's mind: "What the heck do we do about Wikipedia?"

Though this collaborative, online encyclopedia has been around since 2001, it's only in the last year or two that it has reached critical mass in terms of both size (over 5 million articles in 250 languages as of this writing) and visibility (with Wikipedia articles often appearing at or close to the top of many Google search results). Students often use Wikipedia without having any idea what it is, other than a convenient source of information on a topic they need to look up. But the fact that it changes constantly, has thousands of anonymous contributors, and can be edited by anyone makes their instructors understandably nervous.

Beyond the obvious question — should students use it at all? — lie some deeper pedagogical issues.

- How do we convey our expectations of collegelevel interpretation and analysis to students who are new to the process?
- How do we persuade students it's worth the trouble to go beyond the easy and obvious and learn how to seek out, recognize, and use high quality sources?
- How do we introduce them to scholarly conventions of authority and evidence and convince them these standards matter?

All of these questions predate Wikipedia, but the challenge this now-ubiquitous site poses to traditional ideas of authority and reliability has made them more obvious and urgent.

Networked Knowledge

Wikipedia is just one of the most visible examples of a new phenomenon that has significant implications for teaching and learning. Collective knowledge production enabled by social technology is transforming the way we find things out and decide what to believe.

Wikipedia's principles seem almost charmingly old-fashioned in their positive optimism. Contributors are expected to write articles that are factually correct, unbiased, and thoroughly sourced. Its administrators believe (contrary to postmodern theory) that it is possible to present information from a neutral point of view, that errors will eventually be found out and corrected, and that a fairly accurate depiction of the truth will emerge out of the fray of differing voices.

Unlike traditional encyclopedias, Wikipedia is written by unpaid, self-selecting volunteers. It operates on the principle that expertise is not a matter of credentialing but of simply being willing to share what one knows or cares to find out. It has an extensive style manual and a daunting set of guidelines but, unlike traditional reference standbys, there is little top-down control. Editorial decisions are made transparent through history

Encylopaedia Britannica v. Wikipedia

In December 2005, *Nature* published results of a study comparing the accuracy of articles on science topics in Wikipedia with those in the online version of *Britannica*, concluding that the free, anti-authoritarian upstart was not much more error-prone than the respected reference work. *Britannica* heatedly disagreed with the conclusions, but *Nature* stood by its findings.

- "Wikipedia is to Britannica as 'American Idol' is to the Juilliard School." Jorge Cauz, president of *Britannica*.
- "Wikipedia is to Britannica as rock and roll is to easy listening . . . It may not be as smooth, but it scares the parents and is a lot smarter in the end." Jimmy Wales, co-founder of Wikipedia.

Both remarks come from an article in *The New Yorker*.

pages and unbridled, even raucous contributor discussions. The project has suffered from some highly publicized incidents of vandalism, but more than one study has concluded malicious changes are generally found and corrected quickly. Last year, the prestigious science journal *Nature* conducted a study that concluded its science articles contain, on average, four errors – surprisingly, only slightly more than those in *Encylopaedia Britannica* (a finding that *Britannica* contests).

Wikipedia offers articles on far more topics than any traditional encyclopedia, often providing unique coverage of topics in popular culture or of developments too new to be covered in any other reference work. Articles are often updated with new information within minutes of an event. For that reason – and because it's free and convenient, not requiring a trip to the library or familiarity with a library's subscription databases – it's not surprising students (and faculty, too) turn to it for quick, basic information.

Adapting to Read/Write Culture

It's amazing that a project with a small budget, no major grants, and no marketing plan has become such a staple information source. But Wikipedia is an unusually successful example of participatory culture enabled by technology that provides low-barrier methods for creating and sharing content.

It's not only the encyclopedia that is being transformed. Blogs, social networking software, citizen journalism, and sites for sharing and commenting on everything from one's personal library to photos to favorite websites have become standard ways for individuals to find information, express ideas, and establish niche communities based on common interests. These technological developments are involving people in cultural production in new and sometimes unsettling ways.

This read/write culture (or "free culture," to use Lawrence Lessig's terminology) offers individuals an opportunity to become involved with creative work that, throughout the past century, has been largely a one-way stream from producers to consumers. Traditional mass media and entertainment industries are scrambling to adapt to a world where anyone can report the news, record a song, or film a documentary.

Often, the response is defensive, using legal threats to discourage reuse of copyrighted material. Just days after Google acquired the popular videoclip sharing site, YouTube, a number of major media corporations jointly issued a challenge that resulted in countless popular video clips disappearing from the site overnight. Whether a defensive stance damages a healthy market for media is much debated, as is the ultimate cost of such restrictions to culture generally.

Another approach traditional media are using is to emulate read/write culture by enabling comments at their Websites, inviting individuals to rank content, or encouraging audiences to vote on what they want to read, see, or hear.

One indication of the ambivalence of mass media toward social networking is that News Corp has aggressively acted against people who post or even link to possibly infringing YouTube clips, but spent \$580 million to acquire

MySpace, the largest social networking site where 50 million members share and remix music and video clips.

How Wise is the Crowd?

What some call "the wisdom of crowds," others consider a dangerously deluded collectivism. As Jaron Lanier said bluntly in a much-cited critique of creating information through consensus, "the hive mind is for the most part stupid and boring." He argues that allowing the mob to decide what is good and true leads to mediocrity and drab sameness. Bob Dylan, he points out, would probably lose if he appeared on American Idol.

One of the founders of Wikipedia, Larry Sanger, has become disenchanted with its open system for contribution and editing. He has launched Citizendium, a new wiki-based project that will be edited by experts with demonstrated credentials. Scholars who are the most likely to be able to contribute high-quality information to Wikipedia are dismayed when their work is anonymously edited by non-experts. Those most qualified to weigh in, according to Sanger, are discouraged from doing so. In his view, Wikipedia's open structure means it is "committed to amateurism."

Others argue that socially negotiated information that is not produced and owned by corporate mass media is less susceptible to top-down control and corruption. As with much of scholarly communication, information in read/write culture is created and shared in a public sphere rather than being sold as a commodity. Yale law professor Yochai Benkler believes we're seeing a fundamental shift from an industrial mode of information production to something new and potentially much more democratic.

Scholarly Communication and the Wiki Model

In many ways, academic libraries and Wikipedia share many of the same values. Wikipedia attempts to make information freely and widely available. And, for all the challenges it poses to traditional ways of producing knowledge, the process that Wikipedia uses to create information bears some similarity to scholarly communication.

- It is not driven by direct economic incentives. Neither Wikipedians nor most scholars rely on income from their writing. Publication is considered an altruistic way to share knowledge that can benefit the world.
- There is a lack of centralized control in Wikipedia, just as in scholarship, where the resistance to centralized authority is considered a strength, at least by academics.
- Articles in Wikipedia change over time – as does the scholarly record. But unlike reference works that periodically are published in new editions, with changes described in an introduction but otherwise invisible, the history of each Wikipedia article can be examined and

- the debates around them can be retraced, just as the citation network can be used to see the emergence of scholarly knowledge through additions and changes.
- The entire project is based on the belief that truth will emerge through the disinterested work of a collective of peers who share a common goal of increasing access to information. That optimism and trust also underlies the scholarly system of peer review.

Though expertise is not required to write or edit Wikipedia articles, sourcing ideas is highly valued. One of Wikipedia's policies states "We cannot check the accuracy of claims, but we can check whether the claims have been published by a reputable publication. Articles should therefore cite sources whenever possible. Any unsourced material may be challenged and removed." However, in a move typical of Wikipedia culture, another policy states "Every policy, guideline or any other rule may be ignored if it hinders improving Wikipedia." In fact, though many articles include extensive bibliographies, information is often included in articles with only the note "citation needed." Wikipedia articles are, by design, works in progress.

Those features that make Wikipedia seem anarchic, volatile, and even dangerous to faculty are the very features of academia that are baffling and disturbing to non-academics. The greatest difference is that

The Wisdom of Social Networks

Libraries are finding a variety of ways to adapt social networking tools to enhance their contribution to local and distant communities. In addition to blogging, pushing RSS feeds about library resources to course pages, and posting library-related material on YouTube and Flickr, libraries are creating profiles in MySpace, purchasing inexpensive locally-focused advertising on Facebook, and even allowing users to add their own tags and reviews to library catalogs. Though the playfulness and disdain for hierarchy that is characteristic of read/write culture may seem contrary to the library's mission to preserve culture, social networking provides a lively space for involving students in creating knowledge – fundamental to the mission of any academic library.

The potential of social networking models, recognized by many academic librarians, is having an impact on information in other arenas.

- Sharing Intelligence: In December, a *New York Times Magazine* cover story focused on the difficulty U.S. Intelligence agencies have sorting masses of information effectively to discover meaningful patterns. Wikis and blogs may provide a model for sharing and ranking information from multiple sources within the intelligence community. A "need to know" culture based on secrecy and hierarchy can be transformed into a "need to share" culture based on pooling collective intelligence from multiple sources.
- Opening Books: Two years ago a report from the National Endowment for the Arts sounded the alarm that reading was at risk because fewer people read fiction but buried in the report was the interesting finding that more people than ever were writing it. Last month Forbes published a bullish report on the book industry, concluding that the Web is good for publishing, the Internet may save reading, and that making digital copies of books available for free might just be a smart way to find readers and improve sales.
- Reviewing Peer Review: In the wake of the scandal surrounding the publication in a premier science journal of research on cloning human embryos that turned out to be faked, an advisory panel recently concluded the peer review process at *Science* is too trusting and susceptible to fraud. But *Nature* is trying another approach. Last June, they embarked on a three-month experiment, allowing its authors to post their work online for comment while it simultaneously went through the traditional peer review process. Editors are currently analyzing the results to see if this open alternative can improve the results of peer review.

Selected Social Media Sites

Bloglines (http://www.bloglines.com/)
– a personalizable aggregator of news feeds.

Del.icio.us (http://del.icio.us/) – one of several sites dedicated to storing, tagging, and sharing Web bookmarks; acquired by Yahoo.

Digg (http://www.digg.com/) – a news aggregator that presents links to articles based on user recommendations, in effect giving readers collective editorship.

Flickr (http://www.flickr.com/) – a site for sharing and indexing images; acquired by Yahoo.

Library Thing (http://www.librarything.com) – here, bibliophiles catalog their books, find like-minded readers, and share book lists; partially owned by Abebooks.

MySpace (http://www.myspace.com/) – users create their own web profiles, upload pictures, music, and video clips, and form groups; acquired by News Corp.

YouTube (http://www.youtube.com/) – a site where short video clips can be easily shared; acquired by Google.

Zotero (http://www.zotero.org/)—a Firefox plug-in for storing bibliographic records of research material without leaving your browser. The goal is to make it easier for scholars to take notes on what they read, share citations with others, and have recommendations automatically generated based on what has already been saved; developed by the Center for History and New Media.

Wikipedia proudly proclaims it's "the free encyclopedia that anyone can edit." In contrast, expertise and individual reputation are highly regarded in academe. But it's important to realize that Wikipedia is an *encyclopedia*, a general compendium of information, not a site where original research is published. That, Wikipedians leave to the experts.

Jimmy Wales, one of Wikipedia's founders, has expressed exasperation when students tell him they got in trouble with professors for using Wikipedia. "For God's sake, you're in college; don't cite the encyclopedia!" But while students may grasp this rule of thumb, they often don't know the difference between primary, secondary, and tertiary sources found on the Web.

So, What the Heck Do We Do?

Banning students' use of Wikipedia is one possible response, but it's not a very good one. Historian Roy Rosenzweig has suggested a number of ways Wikipedia can be used in the classroom as part of general information literacy efforts.

- Use Wikipedia to expose students to the need to critically analyze primary and secondary sources.
 Because editorial changes are tracked, students have the opportunity to see meaning debated and negotiated.
- Explore the values underlying Wikipedia's commitment to making information widely and freely available. American National Biography has better biographical information than Wikipedia, but it's only available in libraries that can afford to pay a hefty price. What are the social and cultural implications of limited access to high-quality scholarly information?

- Show how the process used by Wikipedia extends the writing process used in the classroom to the public sphere. In a very real sense, Wikipedia is a celebration of lifelong learning. As Rosezweig says, "those who create Wikipedia's articles and debate their contents are involved in an astonishingly intense and widespread process of democratic self-education."
- Use articles related to course content to explore epistemological concepts. For example, Wikipedians engage in historiography as they debate how to present a historical topic, but they do so in terms quite different than those used by professional historians.

Certainly, Wikipedia articles are ripe material for analysis. By bringing students to the library to compare information found in specialized encyclopedias, books, and journals with what they can find in Wikipedia, these articles can help students gain a deeper understanding of how knowledge works. But as an open technology, Wikipedia can also be a sandbox for playing with the skills students need to be information literate. Instead of writing a traditional research paper with an audience of one, students might add or edit articles on topics related to the course material. By so doing, they'll need to go well beyond the easiest sources and gain experience with fact-checking, evaluating sources, and synthesizing information clearly and fairly while contributing to a project to make information freely available to the world.

Students are already participants in the read/write culture that is transforming our informa-

tion environment. Why not bring its creative and dynamic power into the classroom?—*Barbara Fister* <*fister@gac.edu>*

Recommended Reading/Listening

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Jaron Lanier. "Digital Maoism: The Hazards of the New Online Collectivism." Edge. 30 May 2006. http://www.edge.org/3rd_culture/lanier06/lanier06_index.html

Marshall Poe. "The Hive: Can Thousands of Wikipedians be Wrong? How an Attempt to Build an Online Encyclopedia Touched Off History's Biggest Experiment in Collaborative Knowledge." *Atlantic Monthly* 298 (September, 2006): 86-96. http://www.theatlantic.com/doc/200609/wikipedia

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Larry Sanger. "Toward a New Compendium of Knowledge." *Citizendium*. http://www.citizendium.org/essay.html.

Stacy Schiff. "Knowit All: Can Wikipedia Conquer Expertise? (Annals of Information)" *The New Yorker* 82 (31 July 2006): 36-43. http://www.newyorker.com/fact/content/articles/060731fa_fact

Wikimania 2006. Proceedings of a conference held August 4-6th at Harvard; includes podcast lectures by Jimmy Wales, Lawrence Lessig, Yochai Benkler, and other participants. http://wikimania2006.wikimedia.org/

Additional recomendations available in the online version at http://www.libraryissues.com.



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