

## Wikipedia Risks

he Wikipedia (WP; en.wikipedia.org/wiki/) applies the wiki technology (from a Hawaiian word for "quick") to the encyclopedia, a venerable form of knowledge organization and dissemination. Wikipedia provides a fast and flexible way for anyone to create and edit encyclopedia articles without the delay and intervention of a formal editor or review process.

The WP's over 750,000 articles are written and edited by volunteers. WP founder Jimmy Wales believes WP's free, open, and largely unregulated process will evolve toward an Encyclopædia Britannica or better quality. But will this process actually yield a reliable, authoritative reference encompassing the entire range of human knowledge?

Opinions are mixed. WP claims to be the most popular reference site on the Internet. It has been hailed as the quintessence of the "wisdom of crowds," as a model of democratized information, and as a nail in the coffin of the "stodgy old commercial encyclopedia."

Others are concerned about the reliability of an uncontrolled reference work that may include any number of purposeful or accidental inaccuracies. Some observers wonder why anyone would accept information from anonymous strangers of unknown qualifications. WP's first editor in chief, Larry Sanger, believes that an anti-expertise bias among "Wikipedians" foreshadows the death of accuracy in scholarship ("Why Wikipedia Must Jettison Its Anti-Elitism"; www.kuro5hin.org/story/2004/12/30/142458/25). Robert McHenry, former editor of Encyclopædia Britannica, is even more blunt in asserting that the community-accretion process of Wikipedia is fundamentally incapable of rising to a high standard of excellence ("The Faith-Based Encyclopedia"; www.techcentralstation.com/111504A.html).

Regardless of which side you're on, relying on Wikipedia presents numerous risks:

- Accuracy: You cannot be sure which information is accurate and which is not. Misinformation has a negative value; even if you get it for free, you've paid too much.
- **Motives:** You cannot know the motives of the contributors to an article. They may be altruists, political or commercial opportunists, practical jokers, or even vandals.
- **Uncertain Expertise:** Some contributors exceed their expertise and supply speculations, rumors, hearsay, or incorrect information. It is difficult to determine how

- qualified an article's contributors are; the revision histories often identify them by pseudonyms, making it difficult to check credentials and sources.
- **Volatility:** Contributions and corrections may be negated by future contributors. One of the coauthors of this column found it disconcerting that he had the power to independently alter the Wikipedia article about himself. Volatility creates a conundrum for citations: Should you cite the version of the article that you read (meaning that those who follow your link may miss corrections and other improvements), or the latest version (which may differ significantly from the article you saw)?
- Coverage: Voluntary contributions largely represent the interests and knowledge of a self-selected set of contributors. They are not part of a careful plan to organize human knowledge. Topics that interest the young and Internet-savvy are wellcovered, while events that happened "before the Web" may be covered inadequately or inaccurately, if at all. More is written about current news than about historical knowledge.
- Sources: Many articles do not cite independent sources. Few articles contain citations to works not digitized and stored in the open Internet.

The foregoing effects can pollute enough information to undermine trust in the work as a whole. The WP organizers are aware of some of these risks, acknowledging that "Wikipedia contains no formal peer review process for fact-checking, and the editors themselves may not be well-versed in the topics they write about." The organizers have established a background editorial process to mitigate some of the risks. Still, no one stands officially behind the authenticity and accuracy of any information in WP. There is no mechanism for subject-matter authorities to review and vouch for articles. There are no processes to ferret out little-known facts and include them, or to ensure that the full range of human knowledge, past and present, is represented.

The Wikipedia is an interesting social experiment in knowledge compilation and codification. However, it cannot attain the status of a true encyclopedia without more formal content-inclusion and expert review procedures.

The authors are members of the ACM Committee on Computers and Public Policy.