

Examining Wikipedia's value as an information source using the
California State University–Chico website evaluation guidelines.

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August 11, 2011

Introduction

We are living in the information age. As a society, we are inundated with information from an ever growing multitude of sources, from television to Twitter, almost every waking minute. If students are to function effectively in today's world, they need to be able to sort through the information that they are confronted with, be it from an instructor, textbook, television or even a conversation with a friend. By encouraging students and helping them to become more engaged with and critical of information sources, we can better help them develop into independent, lifelong learners. David Parry, an assistant professor of Emerging Media and Communications at the University of Texas at Dallas, frames the challenge this way:

...we do a fundamental disservice to our students if we continue to propagate old methods of knowledge creation and archivization without also teaching them how these structures are changing, and, more importantly, how they will relate to knowledge creation and dissemination in a fundamentally different way. No longer is an encyclopedia a static collection of facts and figures (although some of its features might be relatively so); *it is an organic entity.*

(Parry,2008)

While it would be nearly impossible for librarians to address every conceivable information source a person is likely to encounter, they can provide students with some basic, fundamental principles and skills that will help them along the way. It makes sense that these principles and skills be related to information sources which are among the most relevant to today's students. They should be met on their own turf: online. It also makes sense to meet them on one of the biggest pieces of digital turf out there: Wikipedia.

What is Wikipedia?

The term *wiki*, as defined by Wikipedia refers to:

“websites that allow the creation and editing of any number of interlinked web pages via a web browser typically using a modified markup language or a WYSIWYG text editor. Wikis are typically powered by wiki software and are most often used collaboratively by multiple users. Examples include community websites, corporate intranets, and knowledge management systems.”

(Wiki, n.d.)

Wikipedia, an online encyclopedia that includes 282 different language editions and over 19 million articles is perhaps the most well-known brand in this field. Launched in 2001, Wikipedia has arguably become one of the most popular reference sources on the web, racking up nearly 9 million page views per hour for English language articles alone (Wikipedia, 2011a).

The growing popularity of Wikipedia

Wikipedia represents a new generation of web-based research tools utilized by not only the general populace, with nearly 36 % of the general population of adult internet users, and higher percentages among those users with a college degree and users in the 18-24 age range (Rainie & Tancer, 2007). A great number of students use Wikipedia as well. At least one study reports that 90% of students have used Wikipedia to complete an assignment, while about a quarter of students “always” use Wikipedia when they're completing an assignment (Powerset, 2008). Another study conducted by Alison Head and Michael Eisenberg (2010) found that 52% of students reported “frequently” or “always” use Wikipedia during the course of the information process.

The how and why of using Wikipedia

So why is Wikipedia so widely used? One explanation may be found by looking at Wikipedia's structure, which encourages use of links to both internal and external pages, plays a huge role in its popularity. Google's search results algorithms take into account the number of links to any given webpage. Wikipedia's structure, therefore, gives articles a more than fair shot at displaying highly on given set of keyword search results (Rainie & Tancer, 2007).

But the site's technical structure only provides a part of the puzzle. The real draw of Wikipedia is the site's content. Head and Eisenberg's survey (2010) provide multiple reasons for Wikipedia use. Among the most commonly reported reasons was what some students termed "presearching" to find background material on a subject as well as increasing familiarity with jargon or vocabulary on a topic of interest. A quote from one of the students involved in the study perhaps sums it up best: "Wikipedia tells me what's what."

So what's the problem?

While there is no denying the overwhelming popularity of Wikipedia, use of the site as teaching and research tool does not come without its share of controversy. Members of the ACM Committee on Computers and Public Policy outline several potential risks for Wikipedia users:

- **Accuracy:** You cannot be sure which information is accurate and which is not.
- **Motives:** You cannot know the motives of the contributors to an article.
- **Uncertain Expertise:** Some contributors exceed their expertise and supply speculations, rumors, hearsay, or incorrect information.
- **Volatility:** Contributions and corrections may be negated by future contributors.

- **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

- **Sources:** Many articles do not cite independent sources. Few articles contain citations to works not digitized and stored in the open Internet.

(Denning, Horning, Parnas, & Weinstein, 2005)

Because of these factors, some in higher education discourage its use and/or ban it outright (Waters, 2007).

Navigating a Wikipedia Page

Recognizing the structure of a source is an often overlooked step in the research process. As with any webpage or other information source, taking time to becoming more familiar with the layout structure of a source can serve as a gateway for determining the purpose and appropriateness of any given source and how it may be most effectively used.

While many users will already have some degree of familiarity with Wikipedia's features and layout, it might be useful to take a closer look. The authors of *How Wikipedia Works* break the various pieces of a Wikipedia page down into four broad categories: *Article text*, *Backlinks*, *Article History*, and *Talk Pages* (Ayers, Matthews, & Yates, 2008). Each category is composed of specific page features (which may or may not appear on any given page) as outlined below:

Article text

- *Contents:* Provides an outline of the article.
- *Edit This Page:* Takes the user to an edit page, where changes may be made and submitted
- *Hyperlinks:* Blue hyperlinks are active links to another Wikipedia entry. Red hyperlinks are tagged as a candidate for future inclusion in Wikipedia.
- *See Also:* Hyperlinks to other Wikipedia articles of potential interest.
- *Sources:* A reference list (bibliography).
- *Further Reading:* Books, articles, etc., of possible interest.
- *External Links:* Links to Websites outside Wikipedia.
- *Categories*

- *Notes* (a.k.a. *References*, *Footnotes*, etc.): Direct references to sources used to write an article.
- *Template*: Located at the bottom, templates are a way to categorize an article within a larger subject area.

Backlinks

- *What Links Here sidebar*: Allows user to locate articles that reference the currently viewed article

Article History

- *History*: Edits are logged on this page. IP address or user name, the date and time of all edits are recorded. This section also allows users to compare various versions of an article.

Talk Pages

- *Discussion*: Wikipedia contributors use this page to discuss issues rather than continuously editing an article.

Wikipedia's role as instructional tool

Wikipedia has a natural role as a tool to help students become more engaged information seekers, users and creators. While the use of online catalogs and article databases is integral, they are often foreign concepts, especially for those unfamiliar with the “research process.” The use of Wikipedia as part of an instruction program allows information professionals to engage students using resources with which they likely already have at least a cursory familiarity. As stated before, it is beneficial to meet users on their turf to some extent.

Using the CRAAP guidelines to evaluate Wikipedia

Introduced by the library staff at California State University at Chico (CSU Chico), the CRAAP method is a widely adopted standard primarily for the evaluation of web-based information sources, although the standards may arguably be applied to a broad spectrum of information sources. The standards outline five broad criteria: *currency*, *relevance*, *authority*, *accuracy*, and *purpose*.

Table 1: CSU-Chico CRAAP Guidelines for webpage evaluation

<p>Currency: <i>The timeliness of the information.</i></p> <ul style="list-style-type: none"> ☐ When was the information published or posted? ☐ Has the information been revised or updated? ☐ Does your topic require current information, or will older sources work as well? ☐ Are the links functional?
<p>Relevance: <i>The importance of the information for your needs.</i></p> <ul style="list-style-type: none"> ☐ Does the information relate to your topic or answer your question? ☐ Who is the intended audience? ☐ Is the information at an appropriate level (i.e. not too elementary/advanced for your needs)? ☐ Have you looked at a variety of sources before determining this is one you will use? ☐ Would you be comfortable citing this source in your research paper?
<p>Authority: <i>The source of the information.</i></p> <ul style="list-style-type: none"> ☐ Who is the author/publisher/source/sponsor? ☐ What are the author's credentials or organizational affiliations? ☐ Is the author qualified to write on the topic? ☐ Is there contact information, such as a publisher or email address? ☐ Does the URL reveal anything about the author or source? examples: .com .edu .gov .org
<p>Accuracy: <i>The reliability, truthfulness and correctness of the content.</i></p> <ul style="list-style-type: none"> ☐ Where does the information come from? ☐ Is the information supported by evidence? ☐ Has the information been reviewed or refereed? ☐ Can you verify any of the information in another source or from personal knowledge? ☐ Does the language or tone seem unbiased and free of emotion? ☐ Are there spelling, grammar or typographical errors?
<p>Purpose: <i>The reason the information exists.</i></p> <ul style="list-style-type: none"> ☐ What is the purpose of the information? Is it to inform, teach, sell, entertain or persuade? ☐ Do the authors/sponsors make their intentions or purpose clear? ☐ Is the information fact, opinion or propaganda? ☐ Does the point of view appear objective and impartial? ☐ Are there political, ideological, cultural, religious, institutional or personal biases?

(Meriam Library, California State University-Chico, 2010)

The CRAAP guidelines provide the less experienced user a highly workable, if somewhat prescriptive framework for examination of web pages, while providing a reminder to more experienced users about what Criteria should be taken into account when evaluating not only Wikipedia, but any reference source. While the CSU Chico handout serves as an excellent outline, some extended discussion on how Wikipedia fares under each criterion would be instructive to the user trying to decide whether a particular article is worthy of further attention.

Currency

Currency is arguably one of Wikipedia's greatest strengths, as it may be amended almost on the fly. However, it is important to keep the topic being researched in mind when determining the importance of article currency. For instance, if one were searching for a synopsis of Jane Austen's *Sense and Sensibility*, it is not necessarily imperative for the page to have been edited recently, as the basic gist of this information is highly unlikely to change to any great degree. However, currency would be vastly more important if one were researching a current event or scientific or political topics, such as global warming or the United States' debt crisis. In these cases, factual information as well as sources can change with far greater frequency. In these cases, it would be advisable to check not only the edit history of the article, but also the currency of cited materials, as newer sources may be available elsewhere.

Relevance

The sheer variety and volume of articles available make it likely that a user will find at least *some* material on a topic of interest. The questions come in how well any given article addresses any given question or information need. Students use Wikipedia most frequently to obtain background information on subject area or particular topic than for any other purpose (Head & Eisenberg, 2010). Given this, one of the most important questions to be asked is how well a given article fulfills this purpose. Factors which address this issue include the scope and level of the information provided in the body of the article. Articles can range from short "stub" entries to very lengthy and in-depth coverage. As with currency, it is important to take into account the audience and information need to be addressed when determining if an article contains "enough" information or whether information is an appropriate level. Another important factor to consider is how well a given article helps the user make connections to

other sources, encouraging them to expand their research. A landlocked or “orphan” article might well be viewed as less valuable than one that contains multiple links between articles or cited items.

Authority

Authority is perhaps the most problematic issue that faces Wikipedia. Virtually anyone *can* edit Wikipedia. That phrase is important, as it can be misconstrued. While there are over 15,000,000 named accounts, Wikipedia estimates that about 300,000 editors have edited Wikipedia more than 10 times. They also estimate that about the same number, edit Wikipedia every month; of those, about 50,000 make more than five edits, and 5,000 make more than 100 (Wikipedia:Wikipedians, n.d.). So while any *can* edit, it does not necessarily mean that everyone *does* edit.

Perhaps the more pressing concern is that editors are largely anonymous, as they are not required to provide real given names or proof of credentials. While this is a testament to the perceived “democratization” of information production, it can prove troubling for the user seeking an authoritative source. There are a few things a user can do to lessen this anxiety, including examining the edit histories of articles and then the user pages of frequent contributors. This will at the very least give you some idea of the number and types of contributions made by a given editor. Another way to determine the reliability of the information presented in a Wikipedia article, you must judge by the content and the documentation of sources supporting the content. Just as the level and scope of the textual content of any given article can help determine the value of a given article, so too can the quality and appropriateness of sources and outbound links.

Accuracy

Much in the same way that Wikipedia suffers in the area of authority, it also shows arguable deficiencies with regards to overall accuracy. Wikipedia maintains among its core philosophies (Five Pillars) the concepts of neutrality and verifiability (Wikipedia:Five pillars, n.d.). However, not every article can fully meet these ideals.

A partial determination of accuracy can be made by examining the numbers and types of sources used in an article. Wikipedia states that their threshold for inclusion is not whether an article is “true” but whether or not the information contained in article comes from reliable, verifiable sources (Wikipedia:Verifiability, n.d.). In other words, can the reader review the same sources as the author? Are sources properly cited? Do they represent what they allege to represent?

In defining what constitutes a “reliable” source, Wikipedia uses many of the same criteria as information professionals, with the idea that articles be “based on reliable, third-party, published sources with a reputation for fact-checking and accuracy”. Cited sources should ideally come from “academic and peer-reviewed publications, scholarly monographs, and textbooks”, as well as news *reporting*, as opposed to editorial or opinion pieces (Wikipedia:Identifying reliable sources, n.d.).

Even though a contributor may have followed to the letter guidelines in selection of reliable sources for citation, it does not always mean that these sources were cited with the same attention. The reader needs to be very mindful to separate factual information from bias or opinion. As noted previously, Wikipedia maintains a core philosophy which emphasizes a neutral point of view on the part of contributors. This policy is defined by five principles:

- Avoid stating opinions as facts.
- Avoid stating seriously contested assertions as facts.
- Avoid presenting uncontested assertions as mere opinion.
- Prefer non-judgmental language.
- Accurately indicate the relative prominence of opposing views.

(Wikipedia:Neutral point of view, n.d.)

This, of course, does not mean that individual articles or statements within articles adhere strictly to this set of principles. As an example, an article on political commentator Fareed Zakaria contains the following statement: “Zakaria delusionally self-identifies as a "centrist", though he has been described variously as a political liberal, a conservative, or a moderate” (Fareed Zakaria, n.d.). Whether one agrees or disagrees with the statement in question, the use of the term “delusionally” in this context is arguably a statement of opinion. The author of the above statement does in fact follow the Wikipedia policy of verifiability, providing a separate citation and source for each adjective used to describe Mr. Zakaria. However, if the reader takes a moment to review the source of the “centrist” portion of the statement, they may come away with a different take: “Asked how a neocon who edited the journal *Foreign Affairs* ended up as a favorite of the *Daily Show* crowd, he protests that he is no longer a diehard Reaganite but a firm centrist” (Press, 2005). It is clear that author is providing a description of how Mr. Zakaria views himself.

The reader should not only focus on the the sources cited within any given article, but the overall content as well. As is the case with any expository writing , the material should be clear and relatively easy to digest. Ideally, an article should be accessible to as broad an audience as possible, while avoiding pitfalls such as inappropriate or unexplained jargon.

Purpose

Wikipedia as an entity whole arguably satisfies the CRAAP criterion of purpose most fully. Wikipedia defines itself as a digital analog to the traditional print encyclopedia. Much like any encyclopedia, the primary purpose of Wikipedia is informative, though one does need to be aware of the potential presence of the previously discussed caveat of bias and/or opinion within a given article. As with all criteria, the information need of the user should be a guiding principle in how well any particular article satisfies the criterion of purpose.

Conclusion

Becoming information literate is more than just knowing how to write a competent research paper or locate items in an online catalog. It is more than learning to simply use tools and apply them in specific settings under certain conditions. The information literate student also needs to learn how to more fully engage with and think critically about the information and how it applies to their lives beyond the classroom.

Wikipedia is far from a perfect information source. It demonstrates some serious flaws, most notably the lack of what might traditionally be considered “authoritative” sources. These flaws have, in some cases, led to a bias against Wikipedia (Waters, 2007).

However, there is evidence that a sizable percentage of students are using Wikipedia at some point during the research process (Head and Eisenberg, 2010; Powerset, 2008). It is a source that is more immediately familiar to many users than traditional resources such as catalogs or article databases. By utilizing Wikipedia as an example and springboard for discussion and development of critical evaluation skills, librarians in any setting can help students be more competent and confident information consumers.

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