

Unsupported Assertions

Academic Analysis of Wikipedia

Elijah Meeks

John Siegenthaler was not the first to declare Wikipedia as having “incurable flaws” as a source of information.ⁱ Anyone can add to and edit the online encyclopedia, which makes it commons-based peer production—an economic expression that describes endeavors such as Wikipedia as well as open-source software such as Linux.ⁱⁱ Anyone contributing to Wikipedia has their opinion available in what has the look of an authoritative context, with the danger exacerbated by the enormous and growing audience of Wikipedia, so that one person's opinion is simultaneously magnified and lent an air of legitimacy.ⁱⁱⁱ Whether the subject is the life of John Siegenthaler or the Roman Empire during the reign of Marcus Aurelius, this much seems obvious: Wikipedia lacks the credibility of traditional sources of information.

That current lack on the part of Wikipedia does not, however, mean that such a flaw is incurable. The purpose of this paper is to study the phenomenon of commons-based peer production in general and the epistemological issues particular to it, as well as to suggest possible courses of action to cure Siegenthaler's flaw, whether within Wikipedia or in future projects that take advantage of its model, while maintaining the valuable aspects of Wikipedia which make it so attractive both within and without academia.

There is some issue about whether Wikipedia lacks credibility or lacks acceptance among the community of experts. As was reported in *Nature*, “Wikipedia is about as good a source of accurate information as Britannica, the venerable standard-bearer of facts about the world around us.”^{iv} This disconnect in perception and what it means for the question of credibility in the digital humanities requires special attention, given that

Wikipedia engenders apparent animosity and resistance among professors, librarians, and other traditional educators.

The university must address this issue and the apparent lack of importance it assigns to Wikipedia, even as open-source software development gains more penetration into the academy. Something must occur within the academy to counteract willful lack of attention for what has grown to be an enormous cultural and social artifact. Yochai Benkler forwards an admonition for all scholars who casually disregard the 17th most popular location on the Internet: “That we cannot fully understand a phenomenon does not mean that it does not exist. That a seemingly growing phenomenon refuses to fit our longstanding perceptions of how people behave... counsels closer attention, not studied indifference and ignorance.”^v

Indeed, Wikipedia is not going to vanish, despite any supplications for it to do so. The peer collaboration paradigm has established popularity both in the intellectual realm and the economic. But, more than just being attractive, peer production offers some real benefits, as much in academia as it has already done in software development:

For academics, peer production provides a rich area for new research. Peer production, like the Internet, is just emerging. While there are some studies of peer-produced software, there is little by way of systematic research into peer production processes more generally. There is much room for theoretical work on why they are successful, as well as the potential pitfalls and the solutions that, in principle and in practice, can be adopted in response to those pitfalls. The role of norms, the role of technology, and the interaction between volunteerism and economic gain in shaping the motivation and organization of peer production are also projects.^{vi}

It is surprising how little research—outside of economic and software development—has been done on this type of peer collaboration project, given its novelty and efficacy. In the case of Wikipedia it is especially disturbing, as this means criticism toward it has little in

the way of academic research to back it up. That is, ironically, the same variety of criticism leveled against Wikipedia—that its material has no verifiable support and is thus merely opinion. This paper was initially drafted six months ago, while the Siegenthaler scandal brewed. Scholars have begun to assign more importance to the study of Wikipedia since, and their critiques have grown more nuanced. Some of this criticism is justified, but some is unsuitable, coming from educated people writing and speaking on the topic of knowledge.

First, and least excusable, is the vitriolic response. The amount of emotion tied up in the evaluation of Wikipedia is startling, given that it is fundamentally an intellectual debate. There have, for years, been indications that Wikipedia has some quality as a source of information—at least enough for the debate itself to be legitimate—and yet it still evokes comments like: “For now, however, it's the chasm between Wikipedia's rude claim to be an 'encyclopedia', and the banal reality of trashy, badly written trivia that causes so many people to be upset about it.”^{vii} Upon reflection, it is exciting that there is such emotional investment on the part of critics, because this is a purely intellectual topic. The debate about Wikipedia is a debate about the nature of knowledge, and the role of credibility and *subjectivity* in shaping information. It is heartening to see that a conceptual topic elicits such fervor.

That this is a question of what constitutes knowledge is the root cause for the territorialism of the academy. The PhD is not a membership badge for an exclusive club, but a symbol of intellectual integrity and learning. Getting published among academic journals is a conventional, highly esteemed method of demonstrating such integrity and knowledge—the collaborative nature of Wikipedia, with its resultant authorless articles,

is thus a problem. As Nora Miller notes in her paper, “Wikipedia and the disappearing 'author,’” the “idea that any reader can also add, change or even delete another writer's document makes some writers uncomfortable.”^{viii} The esteem for experts must be championed among the academy if higher education is to mean something more than just the possession of a rare and valuable trinket. The Pleiades Project is notable in this respect. Recently begun and extremely well funded, it is an attempt by the Ancient World Mapping Center to create an atlas of ancient Greece and Rome using peer-collaboration techniques. They acknowledge, in their *Narrative for Sharing*, that “the collaborative approach of projects like *Wikipedia* can be seen to downplay the individual contributions, thus deterring participation by scholars who need individual recognition for tenure and promotion. Established processes of peer review and editorial oversight... were developed by the scholarly community to help assure quality.” Authorship and the ability to trace attribution is thus a legitimate concern with peer-collaboration projects.

Then, there's the less excusable territorialism caused by a loss of economic value. Oft-repeated, pointed remarks about Wikipedia by editors of traditional encyclopedias rarely include a proviso that “publishers of other encyclopedias, especially the Encyclopedia Britannica... have a commercial interest in undermining the use of this free online resource so are not completely neutral.”^{ix} Just as with free software, there is resistance against free information, not solely because of high-minded paternalism on the part of academics, but also as a result of monetary concerns and simple fear of losing a market. Such territorialism can be compared to the Catholic Church's demand that the Bible be interpreted through the expert class that is their priesthood. Likewise, some of the attacks against Wikipedia are elitist demands that the creation and dispersal of

academic knowledge be firmly controlled by a particular class. Hopefully, this analogy will prove instructive rather than predictive.

But many of the responses indicate sober resistance in the realm of credibility, which must be addressed as Wikipedia and similar projects grow in size and significance. “The intuitions of the late twentieth-century American resist the idea that thousands of volunteers could collaborate on a complex economic project.”^x And though Benkler spoke of the high-tech business world and not scholarly pursuits, the traditional view of the university is that it is *less* efficient and *less* well financed than powerful high-tech corporations. As such, at least from a view of competition between sources of knowledge and not from a purely intellectual frame, the success of commons-based peer development in the software world should worry academia. “It certainly should not be that these volunteers will beat the largest and best-financed business enterprises in the world at their own game. And yet, this is precisely what is happening in the software industry.”^{xi}

To put this in perspective, “17 Mistakes Microsoft Made in the Xbox Security System,” one of the papers presented at the 22nd Chaos Communication Congress in Berlin, can be utilized. “17 Mistakes” was a sober and professional postmortem wherein hobbyists explained to a quarter-trillion dollar company the mistakes they made with their four billion dollar platform. It was a dialogue of equals, and the language is remarkable given the last hundred years of corporate success in the United States.

One venue of improvement to the Wikipedia paradigm is to involve universities in official capacity for academic auditing of Wikipedia entries. But Wikipedia's appeal is not simply as a collection of articles on the Internet.^{xii} It is an intellectual community and

the very causes for concern are also the causes for popularity. Any attempt to impose outside standards—even long-held standards—and prevent or limit the amendment of articles could prove disastrous to Wikipedia. And this is assuming that the community around Wikipedia would even condescend to take part in such a partnership.

Similar difficulties also arise from the opposite side: Convincing members of the academy that *they* should take part in something like Wikipedia is not easily accomplished either. A respected and busy professor, with published works and degrees aplenty, is not usually clamoring for collaboration with an inconsistently educated mass of people whose opinions are all considered equal. Contemporary society insists that certain people in certain subjects have superior credibility and that “credibility is a question of quality by some objective measure that the individual adopts for purposes of evaluating a given utterance. [It is what] an individual requires in order to use utterances of others in putting together the user's understanding of the world.”^{xiii}

There should not be any need to convince academics to contribute to a project that so many others contribute to, apparently, for the love of knowledge. Much to the puzzlement of economists, “usually, the question of why anyone would contribute to a peer production enterprise without directly appropriating the benefits is foremost in people's minds.”^{xiv}

Wikipedia was borne of the open-source movement and epitomizes many of the tenets of that movement. Linus's Law, that “Given enough eyeballs, all bugs are shallow,” is utilized within Wikipedia not to find software bugs but to find incorrect bits of information.^{xv} Along with this is the open-source maxim to release early and release often. The philosophy behind such desire is to place the work into the commons and

therefore expose it to the possibility of an enthusiastic volunteer with relevant knowledge. Together, these two ideals of peer collaboration produce the kind of article so many think populate Wikipedia—half-complete and built by committee, with expertise trumped by mass. [WHERE IS THIS AUTHOR IN THE BIBLIO? AND THE FOOTNOTE? -->] As Roy Rosenzweig states in the *Journal of American History*, “Overall, writing is the Achilles’ heel of *Wikipedia*. Committees rarely write well, and *Wikipedia* entries often have a choppy quality that results from the stringing together of sentences or paragraphs written by different people. Some Wikipedians contribute their services as editors and polish the prose of different articles. But they seem less numerous than other types of volunteers. Few truly gifted writers volunteer for *Wikipedia*. *Encarta*, while less comprehensive than *Wikipedia*, generally offers better—especially, more concise—writing.”

And yet, with its incomplete and flawed articles, Wikipedia's appeal is enormous and continues to grow.^{xvi} ComScore Networks ranks the Wikipedia group as the 8th most popular on the Internet: “Wikipedia has emerged as a site that continues to increase in popularity, both globally and in the U.S. Wikipedia's popularity demonstrates the global power of the Web to unite and provide information across countries and languages, but the full extent of its global appeal is only measurable through this new worldwide measurement,” Mr. Daboll commented. [FOOTNOTE THIS, PLEASE]

The disdain shown for Wikipedia among the traditional scholarly community, primarily university professors and librarians, is unseemly.^{xvii} Most common of the critiques of Wikipedia are that it is subject to bias, and so it should not be used as a sole, or even credible, source for a paper. It is remarkable that the university would react so

provincially.

Granted, as with all bibliographical references, Wikipedia should not be depended upon as the only source of information, but it should also not be so cavalierly derided. Instead, the philosophic motivations for Wikipedia should be cheered inside the academy. The attempt to create an enormous, multilingual encyclopedia with participation from what are considered the historically underrepresented should be applauded. That Wikipedia originated outside of academia is a telling sign of the decline of the university as an institution of higher learning and its shift toward vocational instruction. Partnership between universities and Wikipedia would do well to restore the ideal of the university as a place for knowledge and not simply professional preparation.^{xviii}

To be sure, Wikipedia needs to focus on improving scholarly credibility, but not as much as scholars need to be involved with Wikipedia. This is because Wikipedia will continue to grow and improve, with or without help. Much of the reason stems not out of intellectual revolution, but rather a response akin to that summed up by Dr. Paul M.

Johnson in his definition of 'The Division of Labor' from his glossary of *Political*

Economy Terms:

It is worth noting that, while economists tend to emphasize the immense production- and efficiency-enhancing effects of a complex, geographically extensive, and highly specialized division of labor and the markedly higher average standard of living it makes possible, anthropologists, sociologists, and social-psychologists (as well as many philosophers, artists and social theorists) tend to focus more on other presumed non-economic side-effects of greater social differentiation that they typically view in a much more negative light -- such as the development of a diminished sense of wholeness or personal authorship that may result in lessened emotional satisfaction from one's work; greater difficulties in generating agreement on moral principles and a sense of social solidarity or "belongingness" when the far-flung members of society live their lives in such varied ways and develop such diverse interests; the insecurity of the individual's social status when people are no

longer assigned their place in society but must continually compete with others to retain or improve their own social positions; the loss of the sense of community mastery over one's fate that comes with dependence upon distant and unknown people for the provision of most of one's vital necessities, and so on. [FOOTNOTE? AND ADD TO BIBLIO UNDER "PUBLISHED"]

Wikipedia, along with other community-based sites, reaps the benefits of operation via division of labor, and serves as much as a social link as it does an educational resource.

Its accumulation of featured articles will culminate in what is known as Wikipedia 1.0 and its common popularity—already cemented—will continue to be reinforced by positive reviews of its content in comparison to more traditional encyclopedias.^{xix} By offering support now, academia could speed up that growth and expose professors and students to the very real intellectual issues involved with the presentation of knowledge via new technologies, as well as remind them of the apparently forgotten issues of traditional knowledge expression.

To be clear, the proscription commonly made to anyone surfing Wikipedia—to be wary of the bias of the one providing such information—is an excellent one.^{xx} However, that sort of critical thinking should be incumbent upon any knowledge-seeker, especially one in an academic environment. That such a reminder is necessary makes clear the lack of emphasis placed upon students who look uncritically to peer-reviewed journals and the lectures of their professors.

Which is why any discussion of rectifying flaws within Wikipedia must also include the recognition that constant editing and availability for criticism is integral to any commons-based peer production. While it may be the best course of action to freeze an article upon achieving some kind of academic approval, Wikipedia's article possess

and must maintain their dynamic nature. Already, the talk pages for Wikipedia articles are the place for meta-discussion relating to the subject of the article. If the article itself was audited and declared to be accurate, and then maintained for consistency, it could promote greater activity in the talk pages, so that knowledge-seekers can more explicitly engage with the perennial question of, “Who are *they* and why do *they* deem *it* as *such*?”

The other common refrain for using Wikipedia, that it should not be considered a primary source and used as such in a paper, bears attention only for what a terrible straw man it is. In the words of one librarian, “Wikipedia may be helpful at times, but you don't want to rely on it as your only resource because you won't necessarily get the 'full picture'... Of course, if you're a librarian, you already know how critical it is to use more than one resource. But do your customers?”^{xxi} No academic paper should have a single source, and the use of Wikipedia for particular dates or explanations of scientific or social theories should be promoted in support of information found from other sources, just as use of other sources should be encouraged by students whose research begins at Wikipedia.

The current emphasis on specialization in the university presents Kafkaian barriers to knowledge outside the discipline of the everyday undergraduate. The well-reasoned and intelligently presented summaries of such knowledge as Quantum Theory or Deconstructionism within Wikipedia should inspire students to be more interdisciplinary and therefore more synthetic in their thought and should be promoted, not dismissed. The linked nature of articles in Wikipedia already promotes the kind of cross-fertilization of which proponents of interdisciplinary in the university can only dream.

Any criticism of Wikipedia must acknowledge that the sometimes scattered layout

and nature of Wikipedia entries supports this kind of interdisciplinary understanding, and furthermore, must focus on maintaining a respect for those that creating Wiki content. As Benkler purports, “it is easy, though unjustifiable, to forget that information production is one area where we have always had a mixed system of commercial/proprietary and nonproprietary peer production.... At some things, the nonproprietary peer production system of the academic world is simply better.”^{xxii} It may be that the commoditization of knowledge within the university, with its focus on patents and journals, has been a not insignificant cause in the growth of commons-based peer production of academic knowledge. As the university becomes more of a proprietary business, society naturally seeks out a new form of nonproprietary peer production. The pursuit of knowledge for its own sake is appealing to people—if nothing else, the existence and vibrancy of Wikipedia proves this alone—and when that can no longer be accomplished in the university, then people will look elsewhere.

And since society will never adhere rigidly to university protocol or widely read academic journals, it is the social responsibility of those within the university to make sure that popular sources of information are as accurate as possible.

Such an engagement in knowledge creation and fact checking would serve to teach critical thinking during undergraduate education, an activity that would naturally result in a more critical appraisal of Wikipedia by those that use it most. The underpinning worry that “the fluid nature of Wikipedia's content has led educators and others to question the resource's accuracy” is not that the educators are not critical in their own studies, but that those being educated are not.^{xxiii}

Wikipedia is not in competition with scholarly journals. Drawing from traditional peer-review techniques is good but the encyclopedic nature of Wikipedia means that there is more in line with library science and fact checking than peer criticism of the kind necessary for cutting-edge research. As is a common refrain with all peer production, there must be some mechanism to correct flawed self-assessments and it is this process, still in its formative stages, that deserves a critical look.^{xxiv} By establishing the credibility of the process, one spreads credibility to those that take part in the process, who may not individually be considered credible enough for their opinion to be considered valuable. That way, the question, “Do you really want to rely on a resource that 'anyone can edit' when you have people... relying on you to come up with accurate information...” can be answered ‘yes’—not because it has been ascertained that all contributors are experts, which is impossible, but because it has been ascertained that the system is as resilient as possible.^{xxv}

Of primary concern in the development of such a process is that the contribution of academics would be necessarily critical and not creative. The current critical air of scholarly reaction to Wikipedia is, overall, valuable. Criticism and its response, such as the response on the part of Wikipedia to the Siegenthaler scandal, lessens the “potential for cacophony,” and therefore makes Wikipedia less of, “an encyclopedia with no serious claim to authority or accuracy other than revision after revision, always subject to new errors benign and otherwise.”^{xxvi} The continuing focus on citations, more and more predominant in Wikipedia, helps combat a natural weakness of a Wiki: “As a contributory form, the current state of a Wiki is at best a compromise, a shared, collective, fluid work that reflects the biases and perspectives of the contributors in a

more overt fashion.”^{xxvii} By adding critical, academically-trained members to that compromise, it moves toward a more sober and academic treatment of information—the benefits of which are felt by society at large.

Likely the most common action for the academic will be trimming an article and criticizing its writing, sources or conclusions Alternately, there is room for procedures to highlight the article for the community at large and allow the community to perform the improvement of an article deemed lacking. This already occurs in an unofficial capacity, wherein an article on Wikipedia will be criticized and the community responds to the criticism with effort to improve the article.

From a scholarly sense, such a case of auditing and approval would naturally have to end with the article frozen upon completion and further editing disallowed. This model is not entirely antithetical to the nature of Wikipedia; there could also be introduced 'meta-windows' within the article whose title and information are determined by the community. In this way, a reader can be made aware of current controversies or unconfirmed theories regarding the subject. Inclusion of community consciousness is necessary because commons-based peer production requires strong community consciousness for success.^{xxviii}

Another option is not to subscribe to propose anything so rigid at all but something more in line with the nature of commons-based peer collaboration. “It is important to understand that integration requires some process for assuring the quality of individual contributions.”^{xxix} And, perhaps, that is all the university should be to Wikipedia, following the lead of IBM and its support for Linux.^{xxx} In this case the university would have a volunteer-based role in policing Wikipedia, whether Wikipedia

likes it or not. “Practically all successful peer production systems have a robust mechanism for peer review or statistical weeding out of contributions from agents who misjudge themselves.”^{xxxix} The academy becomes this mechanism for peer review, assuring the accuracy of information—not for the contributors to Wikipedia, but to the millions of visitors that utilize it. “Wikipedia is wildly popular. It looks nice, it's easy to use, and its entries often provide useful links.”^{xxxix} Unless some radical shift occurs, this popularity will grow—and not as an American or Western phenomenon, but rather a global one.^{xxxix}

Regardless of how the relationship is developed between the education sector and this new, open information movement, it must be done. This normalization of relations between the university—specifically the humanities—and Wikipedia must take place alongside normalization of other commons-based peer production with the software industry, where “technical issues [are] secondary or even irrelevant to the principle concern of liberty.”^{xxxix} and with it, the evolving legal understanding taking place with knowledge and technology. “The current heavy focus on strengthening intellectual property rights, Benkler notes, “is exactly the wrong approach to increasing growth through innovation and information production if having a robust peer production sector is important...”^{xxxix} The university needs Wikipedia more than Wikipedia needs the university. One continues to be wracked with real scandals and real questions of credibility, while the other seems to shine under honest examination.

More than latching on to the popularity of Wikipedia, though, it is necessary to cultivate affixation, and here I speak as a member of the university and of society, to the intellectual idealism of the project. Volunteers are building a repository of knowledge,

and debating topics that should make any academic proud: “The 'Neutral Point of View' page is indeed revealing of how explicit and central to the project the social norm of objective writing is.”^{xxxvi} Surprisingly, despite competing with video games, pornography, television and music, there exists an incredibly popular website where, “perhaps the most interesting characteristic... is the self-conscious social-norms-based dedication to objective writing.”^{xxxvii} Given the penetration of the Internet into modern society, it would seem that Wikipedia should be championed by any intellectual if for no other reason than because it is, to paraphrase Churchill, the worst usage of the Internet—except all the others that have been tried.

That is not to maintain, as is evident in this paper, that Wikipedia is only worthwhile based on such low standards, but that such a bias can be reconciled with the biases of those who only see the value of Wikipedia as instructional in its antithetical nature. “Benefit that might come from the wider publicity that Wikipedia is currently receiving is a better sense of how to evaluate information sources.”^{xxxviii} Engagement between the traditional arbiters of knowledge in the university and society and the new commons-based peer production can achieve a synthetic understanding of knowledge that will embrace how new technologies have challenged the idea of credibility, authority and the relation between knowledge-seeker and knowledge-provider.^{xxxix} Together, through collaboration, Wikipedia, academia and society can be better.

Bibliography

Published

Acterman, Doug, "Information Literacy: Surviving Wikipedia: Improving Student Search Habits through Information Literacy and Teacher Collaboration," *Knowledge Quest*, vol. 33, no. 5, May/June 2005.

Barack, Lauren, "Wary of Wikipedia," *School Library Journal*, vol. 51, no. 10, October 2005.

Benkler, Yochai, "Coase's Penguin, or, Linux and The Nature of the Firm," *Yale Law Journal*, vol. 112, no. 3, December 2002.

Bok, Derek Curtis, *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should be Learning More*, Princeton University Press, Princeton, 2006.

Communications of the ACM, vol. 48, no. 12, 2005.

Janes, Joseph, "Internet Librarian: Peditas, Familiar and Otherwise," *American Libraries*, vol. 36, no. 9, October 2005.

Kennedy, Shirley Duglin, "Consider Your Source," *Information Today*, vol. 22, no. 8, September 2005.

Levack, Kinley, "If Two Heads are Better Than One, Try 7000 with Wikipedia," *Econtent*, vol. 26, no. 4, April 2003.

Miller, Nora, "Wikipedia and the Disappearing 'Author,'" *ETC.: A Review of General Semantics*, vol. 62, no. 1, January 2005.

Moody, Glyn, *Rebel Code: Linux and the Open Source Revolution*, Penguin Press, London, 2001.

Novick, Peter, *That Noble Dream: The "Objectivity Question" and the American Historical Profession*, Cambridge University Press, Cambridge, 1988.

Smiley, Jane, *Moo*, Random House Publishers, New York, 1995.

"Talk of the Nation," *National Public Radio*, 12/6/2005.

Washburn, Jennifer, *University, Inc.: The Corporate Corruption of American Higher Education*, Basic Books Publishers, New York, 2005.

Web Sources

Hindu Business Line, The

<http://www.thehindubusinessline.com/ew/2005/12/05/stories/2005120500070100.htm>

IBM

<http://www-1.ibm.com/linux/index.shtml>

Orlowski, Andrew, "There's No Wikipedia Entry for 'Moral Responsibility,'" *The Register*, December 2005.

http://www.theregister.co.uk/2005/12/12/wikipedia_no_responsibility/

Raymond, Eric, "Cathedral and the Bazaar."

<http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/>

Terdiman, Daniel, "Brittanica Tops Wikipedia in Accuracy Stakes" *CNET News.com*.

<http://news.zdnet.co.uk/0,39020330,39242334,00.html>

Thompson, Bill, "What is it with Wikipedia," *BBC News/Technology*.

<http://news.bbc.co.uk/1/hi/technology/4534712.stm>

Wikipedia

<http://en.wikipedia.org/wiki/Wikipedia>

<http://www.wikipedia.org/>

i "Talk of the Nation," *National Public Radio*, 12/6/2005.

ii Benkler, Yochai, "Coase's Penguin, or, Linux and The Nature of the Firm," *Yale Law Journal*, vol. 112, no. 3, December 2002, p. 3.

iii According to <http://en.wikipedia.org/wiki/Wikipedia>, "Wikipedia receives over 1000 page views per second."

iv Terdiman, Daniel, "Brittanica Tops Wikipedia in Accuracy Stakes" *CNET News.com*.

<http://news.zdnet.co.uk/0,39020330,39242334,00.html>

v Benkler, p. 40.

vi Ibid, p. 39.

vii Orlowski, Andrew, "There's No Wikipedia Entry for 'Moral Responsibility,'" *The Register*, December 2005.

http://www.theregister.co.uk/2005/12/12/wikipedia_no_responsibility/

viii Miller, Nora, "Wikipedia and the Disappearing 'Author,'" *ETC.: A Review of General Semantics*, vol. 62, no. 1, January 2005.

ix Thompson, Bill, "What is it with Wikipedia," *BBC News/Technology*.

<http://news.bbc.co.uk/1/hi/technology/4534712.stm>

x Benkler, p. 2.

xi Ibid, p. 2.

xii The phenomenon of individuals equating Wikipedia to blogs and the websites of individuals would seem an interesting topic of study in its indication of social and psychological evaluation of sources of information.

xiii Benkler, pp. 7-8.

xiv Ibid, p. 18.

xv Raymond, Eric, "Cathedral and the Bazaar."

-
- <http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/>
- xvi <http://www.thehindubusinessline.com/ew/2005/12/05/stories/2005120500070100.htm>
- xvii See Passim: Acterman, Doug, "Information Literacy: Surviving Wikipedia: Improving Student Search Habits through Information Literacy and Teacher Collaboration," *Knowledge Quest*, vol. 33, no. 5, May/June 2005; *Communications of the ACM*, vol. 48, no. 12, 2005.
- xviii See Passim: Bok, Derek Curtis, *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should be Learning More*, Princeton University Press, Princeton, 2006; Novick, Peter, *That Noble Dream: The "Objectivity Question" and the American Historical Profession*, Cambridge University Press, Cambridge, 1988; Smiley, Jane, *Moo*, Random House Publishers, New York, 1995; Washburn, Jennifer, *University, Inc.: The Corporate Corruption of American Higher Education*, Basic Books Publishers, New York, 2005.
- xix Terdiman.
- xx Some journalists are a little more passionate in their critiques of Wikipedia. The best examples of vitriol-laced articles against Wikipedia can be found on *The Register*, particularly by Orlowski.
- xxi Kennedy, Shirley Duglin, "Consider Your Source," *Information Today*, vol. 22, no. 8, September 2005.
- xxii Benkler, p. 7.
- xxiii Barack, Lauren, "Wary of Wikipedia," *School Library Journal*, vol. 51, no. 10, October 2005.
- xxiv Benkler, p. 23.
- xxv Kennedy.
- xxvi Janes, Joseph, "Internet Librarian: Peadias, Familiar and Otherwise," *American Libraries*, vol. 36, no. 9, October 2005.
- xxvii Ibid.
- xxviii Moody, Glyn, *Rebel Code: Linux and the Open Source Revolution*, London, 2001.
p. 145.
- xxix Benkler, p. 37.
- xxx <http://www-1.ibm.com/linux/index.shtml>
- xxxi Ibid, p. 4.
- xxxii Kennedy.
- xxxiii As of August 10th, 2006, Wikipedia has 59 languages with between 1000 and 10,000 articles, 36 languages with 10,000 to 100,000 articles, and 10 with more than 100,000 articles, of which the English edition has over 1.3 million; the German edition has over 440,000; the French edition over 340,000 and the Japanese edition over 240,000. <http://www.wikipedia.org/>
- xxxiv Moody, p. 260.
- xxxv Benkler, p. 39.
- xxxvi Ibid, p. 35.
- xxxvii Ibid, p. 9.
- xxxviii Thompson.
- xxxix Miller.