

Proceed With Extreme Caution: Citation to Wikipedia in Light of Contributor Demographics and Content Policies

*Jodi L. Wilson**

Caution is the eldest child of wisdom.
—Victor Hugo**

ABSTRACT

Courts and advocates have shown an increasing willingness to cite to Wikipedia. This trend has piqued the attention of scholars, who have considered the permanency concerns raised by citations to Wikipedia and critiqued how courts and advocates have used Wikipedia. This Article adds to the growing scholarship on the Wikipedia citation trend by examining the contours of the Wikipedia contributor crowd and the principles underlying Wikipedia's content in order to better inform the evaluation of Wikipedia as a potential authoritative source. Part I provides an overview of the Wikipedia citation trend in cases and federal appellate briefs. Part II describes the ongoing judicial and scholarly debate about citation to Wikipedia. Part III first examines the size and demographics of the Wikipedia contributor crowd by using systems data and published surveys. Part III then examines Wikipedia's editorial and content policies, which guide the Wikipedia contributor crowd in creating content. Finally, Part IV considers the Wikipedia contributor crowd and the editorial and content policies discussed in Part III in the

* Assistant Professor of Law and Director of Legal Methods, The University of Memphis, Cecil C. Humphreys School of Law. I am grateful to Spencer Bell, James Duckworth, Nicholas Margello, Caroline Sapp, and Lacy Ward for their valuable research assistance. I am also grateful to Professor Mason Lowe, Professor Boris Mamlyuk, and Jeff Sheehan for their thoughtful suggestions on earlier drafts. This Article was supported by research funding from The University of Memphis, Cecil C. Humphreys School of Law.

** FORTY THOUSAND QUOTATIONS: PROSE AND POETICAL 23 (Charles Noel Douglas ed., 3d. ed. 1938).

context of traditional evaluative criteria. This evaluation calls into question some of the assumptions underlying the justifications for relying on Wikipedia. Thus, despite the trend, legal writers should proceed with extreme caution when considering reliance on Wikipedia.

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Wikipedia is well known as the free, online encyclopedia that anyone can edit. With over four million articles,¹ Wikipedia covers topics from A to Z, figuratively and literally.² Given its extensive coverage and availability to anyone with an Internet connection, it is not surprising that Wikipedia has become a very popular website.³

1. See Erik Zachte, *Wikipedia Statistics English*, WIKIMEDIA, <http://stats.wikimedia.org/EN/TablesWikipediaEN.htm> (last visited Oct. 28, 2013) (reporting that the English-language version of Wikipedia began with just twenty-five articles in January 2001 and had 4.2 million articles as of January 2013). The website providing these statistics is maintained by Erik Zachte. According to his webpage, Mr. Zachte is a Data Analyst for the Wikimedia Foundation. *Erik Zachte's Wikipedia/Wikimedia Portfolio*, INFODISIAC, <http://infodisiac.com> (last visited Mar. 20, 2013) (linking to the Wikimedia Statistics page and noting that he began this service as a volunteer in 2003 and began providing the data in connection with his job as a Data Analyst at Wikimedia Foundation in 2008).

Unless otherwise indicated, all references to Wikipedia in this Article refer to the English-language version of Wikipedia. See *List of Wikipedias (Archived)*, WIKIMEDIA, http://meta.wikimedia.org/w/index.php?title=List_of_Wikipedias&oldid=5333966 (archived version last edited Mar. 20, 2013) (reporting that there are “285 languages for which official Wikipedias have been created under the auspices of the Wikimedia Foundation”).

2. See *A (Archived)*, WIKIPEDIA, <http://en.wikipedia.org/w/index.php?title=A&oldid=571465160> (archived version last edited Sept. 4, 2013) (discussing the letter A); *Z (Archived)*, WIKIPEDIA, <http://en.wikipedia.org/w/index.php?title=Z&oldid=573390515> (archived version last edited Sept. 17, 2013) (discussing the letter Z).

The correct citation format for Wikipedia articles has been the subject of much debate. See, e.g., Daniel J. Baker, *A Jester's Promenade: Citations to Wikipedia in Law Reviews, 2002-2008*, 7 I/S: J.L. & POL'Y FOR INFO. SOC'Y 361, 398–401 (2012); Lee F. Peoples, *The Citation of Wikipedia in Judicial Opinions*, 12 YALE J.L. & TECH. 1, 36–42 (2009). Bluebook Rule 18.2.2 addresses direct citations to Internet sources, but it does not specifically address citations to Wikipedia. See THE BLUEBOOK: A UNIFORM SYSTEM OF CITATION R. 18.2, at 165–70 (Columbia Law Review Ass'n et al. eds., 19th ed. 2010). This Article adopts Professor Lee F. Peoples's recommendation that citations to wikis should provide a permalink to the entry cited to ensure that readers who follow the link will find the linked Wikipedia page exactly as it existed when it was cited. Peoples, *supra*, at 40–41. This Article also adopts Professor Peoples's recommendation that the Author should retain a copy of cited Wikipedia pages in order to ensure that the pages are preserved, even if they later become unavailable online. Peoples, *supra*, at 41. Rather than noting in each citation that a copy of the cited page is on file with the Author, however, that notation is made globally here: all cited Internet pages, including Wikipedia pages, were saved to a PDF and are on file with the Author. Because the citations to Wikipedia include links to static, archived versions of otherwise dynamic webpages, this Article adopts a citation format that expressly indicates the archival nature of the linked page in the title and provides the date on which the archived version was last edited. As a general rule, the Author has cited to the version of the Wikipedia page that was the current version of the page at the time the Author first created the citation. For example, the citation to the Wikipedia article for the letter “A,” cited *supra*, was created on September 12, 2013. At that time, the current version of the page had been edited last on September 4, 2013. Since the citation was created, the cited version has been superseded several times, with the first revision occurring on September 30, 2013. See *A (Archived)*, *supra*, (revision history available by clicking on “View History” hyperlink). Where appropriate, the Author updated a citation to allow for more current information. For most pages, however, serendipity rather than strategy determined which slice in the turbulent life of a Wikipedia page would appear in this Article.

3. According to Alexa, a company that tracks website traffic, Wikipedia.org was the seventh most popular website in the United States as of September 20, 2013. *Site Info:Wikipedia.org*, ALEXA, <http://www.alexa.com/siteinfo/wikipedia.org> (last visited Sept. 20,

Along with this popularity, however, Wikipedia has also found controversy over its proper role in research in various disciplines.⁴

In the legal context in particular, sources need to be more than informative; they need to be authoritative.⁵ The authoritative value of a source tends to depend largely on *who* wrote the source,⁶ with emphasis on whether the author had the power to make law or had significant expertise in the subject matter such that one can rely on the source to be accurate. Thus, Wikipedia's very nature as an online, collaborative encyclopedia authored by anonymous, unscreened volunteers would seem to make it the antithesis of an authoritative source. Moreover, Wikipedia acknowledges that its articles are not necessarily "accurate . . . or unbiased"⁷ and concedes that "any given article may be, at any given moment, in a bad state" for a variety of reasons.⁸

In light of the apparent tension between the demand for authoritative sources in legal writing and the inherent nature of Wikipedia, one might assume that legal writers would never rely on Wikipedia as a source of authority. That assumption would be wrong. A quick Westlaw or LexisNexis search discloses that courts⁹ and

2013) (noting that 60.78% of visitors to wikipedia.org go to the English-language version of Wikipedia, en.wikipedia.org).

4. See, e.g., Noam Cohen, *A History Department Bans Citing Wikipedia as a Research Source*, N.Y. TIMES, Feb. 21, 2007, at B1, available at <http://www.nytimes.com/2007/02/21/education/21wikipedia.html> (reporting on the controversy that erupted when a university history department prohibited students from citing to Wikipedia in any paper or exam). For a discussion of the controversy in the legal context, see *infra* Part II.

5. See Coleen M. Barger, *On the Internet, Nobody Knows You're a Judge: Appellate Courts' Use of Internet Materials*, 4 J. APP. PRAC. & PROCESS 417, 419 (2002) ("Thus legal researchers have traditionally looked for information that is more than just informative; they have looked for information that is unquestionably authoritative.").

6. See Frederick Schauer, *Authority and Authorities*, 94 VA. L. REV. 1931, 1935 (2008) ("The force of an authoritative directive comes not from its content, but from its source."); Barger, *supra* note 5, at 446 (suggesting that researchers should "satisfy themselves that . . . the material has been written or published by an authoritative entity or person"). Of course, the authoritativeness of the author or publisher is not the only important characteristic. See, e.g., Baker, *supra* note 2, at 378 (noting the importance of, among other things, a reputation for "disciplined editorial review") (quoting Stacey Schiff, *Know It All: Can Wikipedia Conquer Expertise?*, NEW YORKER, July 31, 2006, at 36, 42, available at http://www.newyorker.com/archive/2006/07/31/060731fa_fact).

7. *Researching with Wikipedia (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Researching_with_Wikipedia&oldid=538370417 (archived version last edited Feb. 15, 2013) (discussing the bias of Wikipedia and the need to approach Wikipedia with an understanding of that bias).

8. *Id.* (noting the potential for vandalism or ongoing large edits as well as the possibility of "remarkable oversights and omissions").

9. See Peoples, *supra* note 2, at 28 (collecting and analyzing cases citing to Wikipedia). Part I.A, *infra*, provides a brief overview of the trend of citations to Wikipedia in cases.

advocates¹⁰ alike have relied on Wikipedia as authority¹¹ to support not only entertaining asides, but also legally significant propositions.¹² Thus, these legal writers have acknowledged Wikipedia—either explicitly or implicitly—as an authoritative source in at least some contexts.

This “Wikipedia-as-authority phenomenon”¹³ has piqued the attention of scholars, who have examined and critiqued how courts and advocates have used Wikipedia¹⁴ and considered the permanency concerns raised by citation to Wikipedia.¹⁵ This Article adds to the growing scholarship on this phenomenon by examining the contours of the Wikipedia contributor crowd and the principles underlying Wikipedia’s content in order to better inform the evaluation of Wikipedia as a potential authoritative source.

Part I provides an overview of the Wikipedia citation trend in cases and federal appellate briefs, including an analysis of the magnitude of the trend in the broader context. Part II describes the ongoing judicial and scholarly debate about citation to Wikipedia. Part III examines the contours of the Wikipedia contributor crowd by using systems data and published surveys to gain insight into the size and demographics of the Wikipedia contributor crowd.¹⁶ Next, Part III examines Wikipedia’s content and editorial policies, which guide the Wikipedia contributor crowd in creating content. Understanding these policies is critical to understanding the purpose and scope of the

10. See Jason C. Miller & Hannah B. Murray, *Wikipedia in Court: When and How Citing Wikipedia and Other Consensus Websites Is Appropriate*, 84 ST. JOHN’S L. REV. 633, 634 (2010) (noting that citations to Wikipedia appear in “countless numbers of legal briefs”). Part I.B, *infra*, provides a brief overview of the trend of citations to Wikipedia in federal appellate briefs.

11. Although this Article focuses on Wikipedia citations in the court context, thousands of law review articles also rely on Wikipedia. See Baker, *supra* note 2, at 389 (2012) (reporting the results of an exhaustive study of law review articles citing to Wikipedia from 2002 to 2008). Notably, almost half of the articles citing to Wikipedia were written by faculty. *Id.* at 393.

12. See *infra* Part I.

13. Baker, *supra* note 2, at 361.

14. See, e.g., Joseph L. Gerken, *How Courts Use Wikipedia*, 11 J. APP. PRAC. & PROCESS 191 (2010); Miller & Murray, *supra* note 10 (examining citations to Wikipedia in cases and briefs); Peoples, *supra* note 2 (examining judicial citation to Wikipedia); Amber Lynn Wagner, Comment, *Wikipedia Made Law? The Federal Judicial Citation of Wikipedia*, 26 J. MARSHALL J. COMPUTER & INFO. L. 229 (2008) (examining judicial citation to Wikipedia and proposing a ban on such citation).

15. See, e.g., Miller & Murray, *supra* note 10, at 642–44 (2010) (proposing a citation method to address changes to content over time); Peoples, *supra* note 2, at 36–42 (proposing a citation and preservation method to address changes over time).

16. As a collaborative encyclopedia that anyone can edit, Wikipedia is crowd-sourced knowledge. The individuals who contribute to Wikipedia make up the Wikipedia contributor crowd. As discussed *infra* in Parts III and IV, although the author(s) of a Wikipedia article cannot be assessed on an individualized basis, known information about the Wikipedia contributor crowd does provide information important to an assessment of the authoritative value of Wikipedia.

source and thus critical to a reasonable assessment of the authoritative value of Wikipedia. Finally, Part IV considers the appeal of a court-imposed categorical ban on citations to Wikipedia, as well as the appeal of identifying specific purposes for which citation to Wikipedia is permissible and others for which it is not. Ultimately, this Part concludes that the better response is for legal writers to engage in an individualized critical assessment of the authoritative value of any Wikipedia article considered as a source for any proposition. Having settled on this response, this Part next considers the Wikipedia contributor crowd and the content and editorial policies discussed in Part III in the context of traditional evaluative criteria. This evaluation calls into question some of the assumptions underlying the justifications for relying on Wikipedia. Thus, legal writers who are considering a Wikipedia article as a source should proceed with extreme caution, making sure that they have more than a cursory understanding of Wikipedia and carefully analyzing whether the Wikipedia article has sufficient authoritative value to merit citation in the legal context.

I. THE WIKIPEDIA CITATION TREND

Despite the admonitions of legal research texts,¹⁷ legal research professors, and some courts,¹⁸ citations to Wikipedia abound in both judicial opinions and appellate briefs. While the citation trend is significant and sustained enough to merit study, the opinions and briefs citing to Wikipedia make up a very small portion of the whole.

A. Citations to Wikipedia in Judicial Opinions

Wikipedia made its first appearance in a judicial opinion in 2004.¹⁹ As Wikipedia citations began to appear more frequently, scholars took note. In 2009, Professor Lee F. Peoples published an exhaustive study of Wikipedia citations appearing in judicial opinions

17. See, e.g., AMY E. SLOAN, BASIC LEGAL RESEARCH: TOOLS AND STRATEGIES 68 (5th ed. 2012) (discussing online nontraditional secondary sources like Wikipedia and noting that “[l]awyers do not consider these sources authoritative, and it is difficult to imagine circumstances under which you would cite one”).

18. See, e.g., *Kole v. Astrue*, No. CV 08-0411-LMB, 2010 WL 1338092, at *7 n.3 (D. Idaho Mar. 31, 2010) (“Respondent is admonished from using Wikipedia as an authority in this District again. . . . As an attorney representing the United States, Mr. Rodriguez should know that citations to such unreliable sources only serve to undermine his reliability as counsel.”).

19. Peoples, *supra* note 2, at 28 (noting that four cases cited Wikipedia in 2004).

from 2004 through November 2008.²⁰ During that period, Professor Peoples found 401 cases citing at least one Wikipedia article.²¹ The number of cases citing Wikipedia each year jumped higher than the year before, with “4 cases in 2004, 18 cases in 2005, 80 cases in 2006, 136 cases in 2007, and 169 cases in 2008.”²²

Professor Peoples analyzed the cases to determine the nature of the courts’ reliance on Wikipedia. He concluded that the majority of Wikipedia citations “were merely collateral references,” meaning that the reference “appears in dicta, is used as a rhetorical flourish, or is cited to define a nonessential term.”²³ However, Professor Peoples also identified a substantial number of cases in which the reference to Wikipedia was significant to the outcome of the case.²⁴

For example, Professor Peoples described the United States Court of Appeals for the Seventh Circuit’s 2008 decision in *Rickher v. Home Depot, Inc.*²⁵ In *Rickher*, the plaintiff asserted that Home Depot violated the Illinois Consumer Fraud and Deceptive Business Practices Act when it sold tool-rental customers a damage waiver that, according to the plaintiff, was duplicative of the wear-and-tear protection provided by the base contract.²⁶ The plaintiff asserted that the contract’s use of “wear and tear” meant “all ‘damage’ resulting from proper use” and cited to traditional dictionary definitions of wear

20. *Id.* at 6 n.29. Professor Peoples searched the ALLCASES Westlaw database using the search phrase “wiki OR wikipedia.” *Id.* Professor Peoples’s search covered cases through November 28, 2008. *Id.*

21. *Id.* at 6.

22. *Id.* at 28 n.174. Professor Peoples’s methodology also included cases citing to wikis other than Wikipedia, but only six of the cases in his results referenced a wiki other than Wikipedia. *Id.* at 6. Running Professor Peoples’s search phrase through the ALLCASES database for the period between November 28, 2008, and December 31, 2008, produces an additional fourteen cases. These search results can be recreated using the following query: “wiki or Wikipedia & da(aft 11/28/2008 & bef 1/1/2009)”. Thirteen of these cases reference Wikipedia, as opposed to another wiki, which brings the 2008 total to 182.

23. *Id.* at 27. Professor Peoples found twenty cases using Wikipedia for rhetorical flourishes. For example, one case cited to Wikipedia as the source for a quote from the Seinfeld television show. *Id.* (citing *Ultrasound Imaging Corp. v. Hyatt Corp.*, No. 1:06-CV-02778-JEC, 2007 WL 2345256, at *5 n.5 (N.D. Ga. Aug. 13, 2007)). Professor Peoples found fourteen cases citing to Wikipedia in dicta. For example, one case cited to Wikipedia in a discussion of lightning striking twice. *Id.* (citing *Albright v. Cincinnati Ins. Co.*, No. 04-00099, 2006 WL 1720213, at *3 n.8 (W.D. Mich. June 20, 2006)). Finally, Professor Peoples concluded that the remaining 217 cases with collateral references cited to Wikipedia to define a term that was “not essential to the court’s holding, reasoning, or analysis.” *Id.* at 28.

24. *Id.* at 7. Professor Peoples does not specify the number of cases that he identified as having significant references to Wikipedia. He does, however, indicate that he found 251 cases with only collateral references. See *supra* note 23 and accompanying text (describing the number of cases Professor Peoples found in each collateral reference category). Presumably, the remaining 150 cases (out of 401) included significant references.

25. *Id.* at 7–8 (citing *Rickher v. Home Depot, Inc.*, 535 F.3d 661 (7th Cir. 2008)).

26. *Rickher*, 535 F.3d at 666; see also Peoples, *supra* note 2, at 7–8.

and tear to support this assertion.²⁷ The Seventh Circuit rejected the broad dictionary definitions of wear and tear and relied instead on Wikipedia's narrower definition of wear and tear to construe the contract.²⁸

In the years since Professor Peoples's study, courts have continued to refer to Wikipedia. A search on Westlaw reveals 146 cases in 2009, 161 cases in 2010, 177 cases in 2011, and 191 cases in 2012.²⁹ Thus, while the significant upward trend apparent from 2004 through 2008 appears to have waned, citations to Wikipedia have not diminished.³⁰

27. *Rickher*, 535 F.3d at 665–66; see also Peoples, *supra* note 2, at 8.

28. *Rickher*, 535 F.3d at 666–67; see also Peoples, *supra* note 2, at 8. According to the court, the plaintiff relied on dictionary definitions defining “wear and tear” as “[d]epreciation, damage, or loss resulting from ordinary use or exposure” and “[d]amage or deterioration resulting from ordinary use; normal depreciation.” *Rickher*, 535 F.3d at 666 (quoting WEBSTER'S II NEW COLLEGE DICTIONARY (1995) and RANDOM HOUSE WEBSTER'S COLLEGE DICTIONARY (1992)). The court concluded that while these definitions employed the word damage, “wear and tear” was not synonymous with damage; rather, it was a narrower phrase focusing on the “expected, often gradual, depreciation of an item.” *Id.* In support of this conclusion, the court cited to Wikipedia's definition of “wear and tear” as “a form of depreciation which is assumed to occur even when an item is used competently and with care and proper maintenance.” *Id.* (quoting from the Wikipedia entry on “wear and tear” as it appeared on May 30, 2008, but not providing a permalink).

As Professor Peoples noted, this analysis drew harsh criticism from Professor Eugene Volokh, who found it “troubling” that the Seventh Circuit would rely on “Wikipedia as the lead authority supporting their conclusion, and as the source for their important and controversial definition.” Eugene Volokh, *Questionable Use of Wikipedia by the Seventh Circuit?*, VOLOKH CONSPIRACY (July 30, 2008, 1:02 PM), <http://www.volokh.com/posts/1217437325.shtml> (discussed in Peoples, *supra* note 2, at 8).

Notably, the Seventh Circuit did not address Wikipedia's reliability. *Rickher*, 535 F.3d at 666–67. This is especially problematic given that the court's reliance on Wikipedia may have been the result of the court's independent research. Home Depot's brief asserted that its interpretation of “wear and tear” was consistent with the traditional dictionary definitions relied upon by *Rickher*, as well as several cases recognizing the distinction between damage and “wear and tear.” Brief of Defendant-Appellee at 24–29, *Rickher*, 535 F.3d 661 (7th Cir. 2008) (No. 07-2850), 2007 WL 5171661, at *24–29. Home Depot's brief does not raise the Wikipedia definition. See *id.*

29. These numbers were current as of April 13, 2014. The initial search results can be recreated by searching the Westlaw ALLCASES database using the following queries: “wiki or Wikipedia & da(2009)”, “wiki or Wikipedia & da(2010)”, “wiki or Wikipedia & da(2011)”, and “wiki or Wikipedia & da(2012)”. Consistent with the methodology described in Professor Peoples's article, see *supra* note 2, at 6, the Author reviewed the results of this search and omitted cases that referenced a wiki other than Wikipedia (e.g., wiki.answers.com). The resulting numbers include cases that reference Wikipedia for any reason.

30. One can only speculate about why the increase has tapered off. Perhaps the early jumps were simply the natural result of the increasing awareness of Wikipedia among judges and judicial clerks. Alternatively, perhaps the stabilization reflects successful efforts by critics of Wikipedia to bring attention to the reliability and accuracy concerns that are inherent in the Wikipedia model. See, e.g., *Campbell ex rel. Campbell v. Sec'y of Health & Human Servs.*, 69 Fed. Cl. 775, 780–81 (2006) (rejecting special master's reliance on an article drawing from Wikipedia and noting Wikipedia's “disturbing series of disclaimers” regarding reliability); see also *infra* Part II (providing an overview of the Wikipedia citation debate).

Rather, courts continue to rely on Wikipedia to support both collateral references and outcome-determinative propositions. For example, in *Prude v. Clarke*,³¹ the Seventh Circuit cited to Wikipedia to provide a little rhetorical flair in its analysis of a prisoner's civil rights suit.³² In *Prude*, the plaintiff asserted that personnel of a county jail subjected him to cruel and unusual punishment using dietary restrictions, which allegedly failed to provide adequate nutrition and caused various health consequences, including anal fissures.³³ The court concluded that deliberately withholding nutritious food or substituting tainted food and thereby causing the health consequences plaintiff alleged would violate the Eighth Amendment.³⁴ Enter the rhetorical flair: in describing the alleged health consequences, the court noted that an anal fissure would be "no fun at all" and cited a Wikipedia article on anal fissures.³⁵

In contrast, the United States District Court for the District of South Dakota relied on Wikipedia to support a far more significant proposition in *Dewald v. Astrue*.³⁶ In *Dewald*, the Social Security Commissioner had rejected the plaintiff's claim for social security disability.³⁷ The Commissioner had concluded that the plaintiff was not severely impaired and, therefore, not disabled within the meaning of the Social Security Act.³⁸ Among other things, the Commissioner gave no weight to the plaintiff's diagnosis of trochanteric bursitis.³⁹ In support of this decision, the Commissioner asserted that bursitis was generally a short-term condition.⁴⁰ The court rejected the Commissioner's contention as "unsupported by any authority whatsoever."⁴¹ The court concluded that "a cursory review of medical resources" showed that trochanteric bursitis could be a long-term condition.⁴² The first "medical resource" cited by the court was a

31. *Prude v. Clarke*, 675 F.3d 732 (7th Cir. 2012).

32. *Id.* at 734.

33. *Id.* at 733–34.

34. *Id.* at 734.

35. *Id.* This opinion was authored by Judge Richard A. Posner, who has been quoted as saying that "Wikipedia is a terrific source," although "[i]t wouldn't be right to use it in a critical issue." Noam Cohen, *Courts Turn to Wikipedia, but Selectively*, N.Y. TIMES, Jan. 29, 2007, at C3, available at http://www.nytimes.com/2007/01/29/technology/29wikipedia.html?_r=0.

36. *Dewald v. Astrue*, 590 F. Supp. 2d 1184, 1203 (D.S.D. 2008).

37. *Id.* at 1189–90.

38. *Id.*

39. *Id.* at 1203.

40. *Id.*

41. *Id.*

42. *Id.*

Wikipedia article on trochanteric bursitis.⁴³ Thus, a Wikipedia article played a substantive role in the court's decision that the Commissioner erred in determining that the plaintiff did not have a severe impairment.⁴⁴

B. Citations to Wikipedia in Federal Appellate Briefs

The year 2004 was a banner year for Wikipedia. It was not only the first year that a court cited to Wikipedia, it was also the first year that a federal appellate brief cited to Wikipedia.⁴⁵ In 2004, Wikipedia appeared in two briefs submitted to the United States Court of Appeals for the Second Circuit⁴⁶ and one brief submitted to the United

43. *Id.* (citing also to an article in *Mayo Clinic Proceedings*, a peer-reviewed clinical journal).

44. *See id.* at 1199, 1203.

45. To identify appellate briefs filed in federal court citing Wikipedia, the Author searched the "U.S. Courts of Appeals Briefs" database and the "U.S. Supreme Court Briefs" database on WestlawNext using the query: "wiki!". The search was limited to documents filed through the end of 2012. These initial search results can be recreated using the following query in both databases: "wiki! & da(bef 01/01/2013)". All briefs identified in the initial search results were reviewed and briefs that did not rely on Wikipedia were excluded. Specifically, the Author excluded briefs that did not include a reference to Wikipedia (e.g., references to other wikis or parties with names like Wikins), as well as briefs that discussed Wikipedia because it was a part of the underlying claim (e.g., a claim that a juror improperly consulted Wikipedia). Additionally, any briefs that did not directly rely on Wikipedia were omitted. For example, if a party noted that the opposing party had submitted a Wikipedia article, but the party did not rely on the substance of the article or other Wikipedia references in its own argument, the brief was excluded. If a brief was duplicated in Westlaw's database (e.g., an original brief and a "corrected" brief), the duplicate copy was excluded. Finally, the dates provided by WestlawNext for some briefs were incorrect based upon review of the original document. These dates were corrected.

The analysis presented in this Article is limited to federal briefs because the data available regarding state briefs is inconsistent. For example, the Mississippi Briefs database is limited to briefs filed in the Mississippi Supreme Court. *See* Mississippi Briefs Scope Information, WESTLAWNEXT, [https://1.next.westlaw.com/Browse/Home/Briefs/MississippiBriefs?transitionType=Default&contextData=\(sc.Default\)#](https://1.next.westlaw.com/Browse/Home/Briefs/MississippiBriefs?transitionType=Default&contextData=(sc.Default)#) (click on the "i" in a circle for detailed coverage information) (last visited on Apr. 1, 2013). It appears that advocates in state court were the first to venture a Wikipedia citation in an appellate brief, as there is at least one instance of a citation to Wikipedia in a state court brief before 2004. *See* Brief of Ass'n of Am. Publishers, Inc. et al. as Amici Curiae Supporting Petitioners at 7–8, *New Times, Inc. v. Isaacks*, 146 S.W.3d 144 (Tex. 2004) (No. 03-0019), 2003 WL 23195394, at *7–8 (citing to Wikipedia for the definition of "satire" and for an analysis of a Jonathan Swift essay).

46. *See* Brief for Plaintiff-Appellee-Cross-Appellant at 56, 59, *Mirasco, Inc. v. Am. Nat'l Fire Ins. Co.*, 144 F. App'x 171 (2d Cir. 2005) (No. 04-3421-cv(L)), 2004 WL 5043729 (citing to Wikipedia, in addition to other sources, to define "embargo" in a case involving whether a particular decree was an embargo within the meaning of an insurance contract); Brief for Petitioner at 10–11, *Chen v. Gonzales*, 180 F. App'x 203 (2d Cir. 2006) (No. 04-4986-AG), 2004 WL 5252168 (citing to Wikipedia for definitions of "huh" and "defluency" in the context of interpreting a hearing transcript in an asylum case).

The brief filed in the Second Circuit Court of Appeals provides an excellent example of the permanency issues presented by citations to Wikipedia. The URL address provided in this brief for the Wikipedia article on the word "huh" takes the reader to a page that does not include

States Supreme Court.⁴⁷ After 2004, the number of federal appellate briefs citing to Wikipedia steadily increased and then stabilized, with 32 briefs in 2005, 87 briefs in 2006, 107 briefs in 2007, 107 briefs in 2008, 127 briefs in 2009, 108 briefs in 2010, 114 briefs in 2011, and 112 briefs in 2012.⁴⁸ Like the citations to Wikipedia in judicial opinions, the citations to Wikipedia in appellate briefs range from support for collateral references to support for legally significant propositions.

On one end of the spectrum are briefs that cite to Wikipedia as support for collateral information. For example, in *Superior Diving Co. v. Watts*, the appellant asserted that he was faced with a “cruel and heartless ‘Hobson’s choice’” when the trial court warned him that it would not reopen discovery if it set aside an alleged unauthorized settlement, even though his prior attorneys allegedly took the settlement because they had failed to conduct discovery.⁴⁹ To set up the argument and ensure the court’s familiarity with the term “Hobson’s choice,” the brief quoted from Wikipedia to explain both the origin and the meaning of the term.⁵⁰

On the opposite end of the spectrum, however, are briefs that cite to Wikipedia for propositions that are central to the arguments in the case. For example, in a brief submitted to the Supreme Court in *FCC v. Fox Television Stations, Inc.*, ABC Television Affiliates Association and other related respondents (collectively, ABC) relied on Wikipedia as support for statements of fact.⁵¹ The case began when the FCC imposed a \$1.24 million sanction on broadcasters who aired an *NYPD Blue* episode containing nudity.⁵² Following that sanction, ABC challenged the constitutionality of the FCC’s indecency

the definition cited in the brief. See *Huh (Archived)*, WIKIPEDIA, <http://en.wikipedia.org/w/index.php?title=Huh&oldid=547197721> (archived version last edited Mar. 27, 2013). The URL address provided in this brief for the Wikipedia article on the word “defluency” takes the reader to an error page indicating that the article does not exist. See *Defluency*, WIKIPEDIA, <http://en.wikipedia.org/wiki/Defluency> (last visited Sept. 16, 2013) (permalink not available). For further discussion of the permanency concerns, see *infra* notes 77, 79.

47. See Brief for James J. Hayes as Amicus Curiae Supporting Respondents at 13, *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336 (2005) (No. 03-0932), 2004 WL 2678597, at *13 (citing to Wikipedia for an explanation of the “Efficient Market Hypothesis” in a case involving a claim of securities fraud).

48. See *supra* note 45 and accompanying text for a description of the basis for these results. These numbers were current as of April 13, 2014.

49. Appellant’s Brief of Jay Watts at 12–14, 39–40, *Superior Diving Co. v. Watts*, 372 F. App’x 496 (5th Cir. 2010) (No. 08-30423), 2008 WL 8011445, at *12–14, *39–40.

50. *Id.* at 39.

51. Brief of Respondents ABC Television Affiliates Ass’n et al. at 3 n.2, *FCC v. Fox Television Stations, Inc.*, 132 S. Ct. 2307 (2012) (No. 10-1293), 2011 WL 5373701, at *3 n.2.

52. *Id.* at 1–2.

regulations.⁵³ The brief authors described *NYPD Blue* in detail in the brief, citing to various sources.⁵⁴ The authors cited to Wikipedia as support for the proposition that the pilot episode of the series included nudity and as support for the average number of viewers watching *NYPD Blue* each week.⁵⁵ Both of these facts figured into the brief's legal arguments. For example, the authors argued that the FCC's indecency regulations failed to give notice of prohibited conduct, in part because the FCC's prior actions (or lack thereof) suggested that the agency would not consider nonsexual nudity to be indecent.⁵⁶ In support of this position, the authors cited to prior FCC decisions and noted that *NYPD Blue* itself had earlier episodes with brief nudity, none of which resulted in sanctions.⁵⁷ Similarly, the authors argued that the FCC could not constitutionally gauge or control "social acceptability."⁵⁸ To support this argument, the authors pointed to the show's average weekly viewership according to Wikipedia and contrasted that number to the relatively small number of complaints received about the scene at issue.⁵⁹

C. Isolated Citations or Widespread Practice?

Although the trend of citing to Wikipedia should not be dismissed as the work of a handful of mavericks, a comparison of the number of cases and briefs citing to Wikipedia to the total number of cases and briefs during the same period reveals that citations to Wikipedia are still relatively limited. Indeed, throughout the eight-year history of citations to Wikipedia, the Wikipedia-citing cases comprise less than 0.1% of the cases for each year,⁶⁰ and the

53. *Id.*

54. *See, e.g., id.* at 3–4, 10.

55. *Id.* at 3 n.2, 4 n.4, 47 n.50.

56. *Id.* at 39.

57. *Id.* at 39 n.42.

58. *Id.* at 45.

59. *Id.* at 46–47.

60. To determine the total number of cases each year, the Author searched in the ALLCASES database on Westlaw for "court," a word that should appear in every case, and limited the search by year. By reviewing the Research Trail, the Author was able to determine the following total number of cases retrieved by the search for each year: 228,997 cases in 2004; 249,628 cases in 2005; 286,979 cases in 2006; 304,016 cases in 2007; 305,412 cases in 2008; 308,457 cases in 2009; 321,010 cases in 2010; 318,948 cases in 2011; and 312,811 cases in 2012. The search results can be recreated using the following query, with an appropriate change to the year: "court & da(2004)". The numbers provided here were current as of April 13, 2014. The Author did not use WestlawNext for this search because the Research Trail in WestlawNext is capped.

Wikipedia-citing briefs comprise less than 0.3% of the briefs for each year.⁶¹

The relative infrequency of Wikipedia citations indicates that while Wikipedia has certainly made inroads as an accepted authoritative source, at least for some purposes, it has not yet gained widespread acceptance. The acceptance it has gained, however, tips the scale in favor of increasing acceptance.⁶² But legal writers should not embrace a new authority without careful reflection. Accordingly, legal writers should educate themselves about Wikipedia, beyond a cursory understanding, so that they can critically evaluate its authoritative value.

II. THE WIKIPEDIA CITATION DEBATE

The fact that Wikipedia has found its way into legal documents as a source of authority cannot be debated. Whether such citations are appropriate, however, is subject to much debate, by both the judiciary and scholarly commentators.⁶³

A. Judicial Debate

The judiciary has not reached a consensus on the advisability of citing to Wikipedia.⁶⁴ Some courts have either explicitly or implicitly approved of citation to Wikipedia, while others have rejected Wikipedia as a source.

As discussed in Part I, courts have cited to Wikipedia to support both collateral references and legally significant propositions.

61. To determine the total number of federal appellate briefs each year, the Author searched in the CTA-BRIEF database and the SCT-BRIEF database on Westlaw for “court,” a word that should appear in every brief, and limited the search by year. The Research Trail provided the total number of cases retrieved by each search. The results from the CTA-BRIEF database and the SCT-BRIEF database were combined for each year. Using this method, the Author identified 49,275 briefs in 2004; 54,367 briefs in 2005; 53,164 briefs in 2006; 46,195 briefs in 2007; 46,696 briefs in 2008; 45,543 briefs in 2009; 42,467 briefs in 2010; 41,063 briefs in 2011; and 45,508 briefs in 2012. The search results can be recreated using the following query, with an appropriate change to the year: “court & da(2004)”. The numbers provided here were current as of April 13, 2014.

As noted *supra* in footnote 45, duplicate briefs were excluded when calculating the number of briefs citing to Wikipedia each year. Even with the duplicate briefs, the percentage of briefs citing to Wikipedia is still less than 0.4% each year.

62. See *infra* Part IV.B (discussing the legitimizing effect of judicial citations to Wikipedia).

63. For a more thorough review of the arguments for and against citation to Wikipedia, see Baker, *supra* note 2, at 366–81.

64. This section provides a brief overview of the judicial debate. For more expansive discussions, see Michael Whiteman, *The Death of Twentieth-Century Authority*, 58 UCLA L. REV. DISCOURSE 27, 50–53 (2010), and Gerken, *supra* note 14, at 213–22.

According to one study, most of the courts citing to Wikipedia do so without any discussion of whether Wikipedia is an appropriate source.⁶⁵ Other courts, however, have explicitly addressed their reliance on Wikipedia. For example, in *Fire Insurance Exchange v. Oltmanns*,⁶⁶ the court concluded that the term “jet ski” in an insurance contract was ambiguous, noting that the term’s multiple meanings were “well-illuminated in that great repository of contemporary wisdom, Wikipedia.”⁶⁷ The court conceded that it may have hesitated to cite to Wikipedia in the past but noted that “the increasing trend” of citations to Wikipedia suggested that it was an appropriate source for some purposes.⁶⁸ Indeed, the court concluded that “where an understanding of the vernacular or colloquial is key to the resolution of a case, . . . Wikipedia is tough to beat.”⁶⁹ The concurrence, incorporated by reference in the majority, discussed the court’s reliance on Wikipedia in even greater detail, concluding that Wikipedia was especially useful in cases that only required the court to determine that a word had a range of possible meanings.⁷⁰

Some courts, however, have taken a more skeptical view of Wikipedia. For example, in *Campbell ex rel. Campbell v. Secretary of Health and Human Services*,⁷¹ the United States Court of Federal Claims concluded that a special master had improperly based her decision on unreliable Internet articles, including one that drew from Wikipedia.⁷² The court noted that Wikipedia itself “reveals a pervasive and, for our purposes, disturbing series of disclaimers,” including warnings that any article may, at any time, be “in a bad state” due to vandalism and may be “subject to remarkable oversights

65. Gerken, *supra* note 14, at 213. It is distressing that so many courts appear to be embracing a new and controversial source without engaging in a critical assessment of the propriety of doing so in the case at hand and the resulting ripple effects for the law as a whole. See *infra* Part IV.B (discussing the ripple effects). One hopes that the courts are engaging in this assessment and simply not committing it to writing.

66. *Fire Ins. Exch. v. Oltmanns*, 285 P.3d 802 (Utah Ct. App. 2012).

67. *Id.* at 805–06.

68. *Id.* at 805 n.1.

69. *Id.* (noting that Wikipedia “contributors range from expert scholars to internet trolls”).

70. *Id.* at 809 (McHugh, J., concurring) (“Whatever its shortcomings in other contexts, for this task, an open-source encyclopedia with many editors and millions of readers seems just the ticket.”); see also *id.* at 805 n.1 (referring with approval to the concurrence’s explanation of the “propriety of citing Wikipedia”).

71. *Campbell ex rel. Campbell v. Sec’y. of Health & Human Servs.*, 69 Fed. Cl. 775 (2006).

72. *Id.* at 780–81 (2006) (rejecting special master’s reliance on Internet articles regarding medical condition at issue where special master introduced the articles into the record *sua sponte* and did not hold an evidentiary hearing allowing “expert witnesses to corroborate or refute” the articles).

and omissions.”⁷³ Similarly, the United States Courts of Appeals for the Eighth Circuit and the Fifth Circuit have both concluded that Wikipedia is an unreliable source.⁷⁴

In May 2009, the Court Administration and Case Management Committee of the Judicial Conference of the United States issued *Guidelines on Citing to, Capturing, and Maintaining Internet Resources in Judicial Opinions/Using Hyperlinks in Judicial Opinions* (Guidelines).⁷⁵ Without mentioning Wikipedia specifically, the Guidelines propose that Internet sources should be treated like other sources and subjected to appropriate evaluation. Specifically, the Guidelines acknowledge that a court may need to cite an Internet source, “[e]specially in situations where the cited material cannot be found in an authoritative print resource or the Internet site or information itself is the subject of the opinion”⁷⁶ Noting that judges should evaluate Internet sources with the same criteria as more traditional sources, the Guidelines then list six such criteria: (1) accuracy, (2) scope of coverage, (3) objectivity, (4) timeliness, (5) authority, and (6) verifiability.⁷⁷ Finally, the Guidelines encourage judges to tap the expertise of their librarians to find the best resources for citations, including the “most authoritative and stable Internet-based source . . . and/or alternatives to Internet versions of resources, if they exist.”⁷⁸

73. *Id.* at 781 (quoting Wikipedia but providing no specific citation).

74. *See* *Badasa v. Mukasey*, 540 F.3d 909, 910 (8th Cir. 2008) (discussing with implicit approval the BIA’s rejection of Wikipedia as a reliable source and pointing to Wikipedia’s own disclosures about the potential bias, errors, and omissions that may be present in any article at any time); *Li v. Holder*, 400 F. App’x 854, 857–58 (5th Cir. 2010) (expressing “disapproval of the IJ’s reliance on Wikipedia and [warning] against any improper reliance on it or similarly unreliable [I]nternet sources in the future”). The Fourth Circuit Court of Appeals has also expressed concerns about the “unreliability” of Wikipedia, although the court’s comments arose in the context of a claim that a juror improperly conducted research on Wikipedia. *United States v. Lawson*, 677 F.3d 629, 650–51 (4th Cir. 2012).

75. Court Administration and Case Management Committee, Judicial Conference of the United States, *Guidelines on Citing to, Capturing, and Maintaining Internet Resources in Judicial Opinions/Using Hyperlinks in Judicial Opinions* (May 22, 2009) [hereinafter *Guidelines*], <http://indianalawblog.com/documents/Director%20Memo.pdf>.

76. *Id.* at 1.

77. *Id.* at 1–2. In addition to discussing *whether* Internet sources should be cited, the Guidelines also address practical considerations such as whether courts should preserve the source in another format and how courts should cite to the source in order to ensure that it remains available to the public even if the original link to the source no longer works. *Id.* at 2–5.

78. *Id.* at 2.

B. Scholarly Debate

Not surprisingly, scholars have also debated the advisability of citing to Wikipedia.⁷⁹ Like courts, scholars have noted that Wikipedia's open-editing structure, which allows anyone to edit at any time, raises concerns about the authoritative value of Wikipedia.⁸⁰ This editing structure calls into question the accuracy of the article in general⁸¹ and requires one to consider the potential for manipulation of the article by interested parties.⁸²

79. In addition to discussing concerns about whether citation to Wikipedia is appropriate, scholars have also addressed concerns about the impermanence of Wikipedia and other online sources. Professor Coleen Barger's 2002 article, *On the Internet, Nobody Knows You're a Judge: Appellate Courts' Use of Internet Materials*, predates Wikipedia's introduction as a source in judicial opinions and briefs, but the concerns Professor Barger raises regarding the impermanence of Internet sources are as applicable to Wikipedia as any other Internet source. See Barger, *supra* note 5. Professor Barger noted increasing citations to a wide variety of Internet sources in federal appellate opinions. *Id.* at 419. She then studied those citations to determine whether the content was still available. *Id.* at 438. Professor Barger concluded that many of the citations were inaccessible. *Id.* Professor Barger described five categories of accessibility problems: (1) the content had changed from what it was when first cited; (2) the content had been relocated and was not available via the original link; (3) the content had disappeared; (4) the content was only available through a subscription or password or the citation provided was overbroad; and (5) the link included in the citation was flawed. *Id.* at 439–45. With the exception of password or subscription access limitations, each of these problems is a potential issue for citations to Wikipedia. Of course, if Wikipedia ever alters its model, the password or subscription access limitations may become an issue as well. See Baker, *supra* note 2, at 380 (discussing possibility that economic realities could force Wikipedia to move away from free access).

With regard to Wikipedia specifically, Professor Peoples discussed the difficulties that researchers may have in locating a Wikipedia article cited in a judicial opinion, including nonworking links and changed content. Peoples, *supra* note 2, at 36–42. Professor Peoples concluded that “[i]f Wikipedia becomes a legitimate source it could bring instability and uncertainty to the law” and emphasized the importance of including “complete citations that allow future researchers to view the entries as they existed when originally cited.” *Id.* at 48–49. Expanding on the concern, Professor Peoples quoted a practitioner, who opined that “citation of an inherently unstable source such as Wikipedia can undermine the foundation not only of the judicial opinion in which Wikipedia is cited, but of the future briefs and judicial opinions which in turn use that judicial opinion as authority.” *Id.* at 49 (quoting Kenneth H. Ryesky, *Downside of Citing to Wikipedia*, N.Y. L.J., Jan. 18, 2007, at 2). As discussed *supra* note 2, to address these concerns, Professor Peoples proposed a specific citation form for Wikipedia and proposed that authors should preserve the article in its existing form.

80. See, e.g., Baker, *supra* note 2, at 373–78 (concluding that Wikipedia “cannot be accepted as an authoritative source”).

One study has suggested that Wikipedia is almost as reliable as the more traditional *Encyclopædia Britannica*. Jim Giles, *Internet Encyclopædias Go Head to Head*, NATURE, Dec. 15, 2005, at 900 (comparing Wikipedia's scientific entries to those in *Encyclopædia Britannica*). Of course, this study has been disputed. See *Encyclopædia Britannica, Inc., Fatally Flawed: Refuting the Recent Study on Encyclopedic Accuracy* by the Journal *Nature* (Mar. 2006), corporate.britannica.com/britannica_nature_response.pdf.

81. See, e.g., Peoples, *supra* note 2, at 17 (concluding that courts should not take judicial notice of Wikipedia because the accuracy of the information it provides is questionable given the anonymous editing structure); R. Jason Richards, *Courting Wikipedia*, TRIAL, Apr. 2008, at 62,

In light of these concerns, commentators have suggested various approaches to Wikipedia as a source of authority, with some proposing bright-line rules and others suggesting broad considerations. Some commentators have acknowledged that Wikipedia is a valuable research tool for locating reliable sources while concluding that Wikipedia itself should simply not be cited.⁸³ Most commentators, however, have stopped short of such a categorical prohibition,⁸⁴ opting instead to identify various contextual factors that would make reliance on Wikipedia either more or less acceptable. For example, several commentators have asserted that Wikipedia citations are appropriate for noncritical or undisputed matters⁸⁵ but more problematic for matters that are disputed or critical to the outcome of the case.⁸⁶ Some commentators have gone further, however, and

62 (discussing the vandalism of a Wikipedia article about John Seigenthaler, Sr., which included a “false insinuation” that Seigenthaler had played a role in the assassination of Robert Kennedy). For a detailed discussion of the vandalism of the Wikipedia page for John Seigenthaler, Sr., one of the more well-known incidents of vandalism, see ANDREW LIH, *THE WIKIPEDIA REVOLUTION* 191–94 (2009).

82. See, e.g., Peoples, *supra* note 2, at 24–25 (noting that the collaborative editing structure opens the door for parties to manipulate the content in their favor); Richards, *supra* note 81, at 63 (“[A]n unscrupulous lawyer (or client) could edit the [Wikipedia] entry to frame the facts in a light favorable to the client’s cause.”). Notably, the concerns about manipulation typically focus on manipulation at the time of the litigation, but one can easily imagine a Wikipedia article created or modified by an individual or entity before litigation that fortuitously supports a particular position during litigation. When such a self-serving document is separated from the author and introduced as crowd wisdom under the Wikipedia pseudonym, it may be given greater weight than it is really due.

83. See, e.g., Sean Smith, *The Case for Using, but not Citing, Wikipedia*, PROSECUTOR, Oct.–Dec. 2008, at 47 (encouraging use of Wikipedia for research, but emphasizing that “Wikipedia simply should not be cited by lawyers making arguments”); Wagner, *supra* note 14, at 256 (“[A] ban of the citation of Wikipedia is essential to conserve the integrity of the common law tradition.”); see also Daniel E. Harmon, *Wikipedia Reconsidered: Still Not a Prime Resource, but Useful to Lawyers*, LAW. PC, Feb. 15, 2012, at 1 (suggesting that Wikipedia is unlikely to be an accepted source any time soon, but noting that it is a good source for quick information).

84. As Reference Librarian Joseph L. Gerken put it, the “sheer number of cases suggests that it is simply incorrect to say categorically that courts should not cite Wikipedia.” Gerken, *supra* note 14, at 192.

85. See, e.g., Gerken, *supra* note 14, at 224 (noting that citations to Wikipedia to support facts that are not in “serious dispute” are unlikely to be prejudicial); Miller & Murray, *supra* note 10, at 647–48 (noting that providing general information is an acceptable usage of Wikipedia); Peoples, *supra* note 2, at 33 (“[C]iting a Wikipedia entry for a collateral matter that is not central to the case before the court is usually permissible.”); Whiteman, *supra* note 64, at 57 (arguing that allowing Wikipedia to support noncontroversial facts is no different than allowing a traditional encyclopedia to do the same except that it “will save litigants time and money,” thereby “level[ing] the playing field among litigants”).

86. See, e.g., Gerken, *supra* note 14, at 223–24 (noting that as a fact edges toward being critical or disputed, courts should hesitate to cite to Wikipedia); Peoples, *supra* note 2, at 50 (concluding that Wikipedia should not be relied upon as the sole basis for a holding or reasoning or to demonstrate the existence or absence of a material fact in the context of a motion for summary judgment); Richards, *supra* note 81, at 64 (noting that Wikipedia “do[es] not have the quality control necessary to be considered accurate or reliable,” but suggesting that writers

proposed that reliance on Wikipedia is also permissible to define slang terminology, to identify common usage of terms, and to describe pop culture phenomena, even if the terms or phenomena being defined are important to the outcome of the case.⁸⁷ At least one commentator has recommended that Wikipedia articles should simply be subjected to the same scrutiny that already applies to traditional sources, without identifying any off-limits categories.⁸⁸

Although commentators have conflicting opinions on the advisability of citing to Wikipedia, those who conclude that such citations are permissible in some circumstances typically note that legal writers must still subject a Wikipedia entry to some degree of scrutiny.⁸⁹ In order to subject a source to scrutiny, however, a legal writer must understand the source.

might be guided by Judge Posner's approach that Wikipedia is a permissible source for unimportant references but should not be used in relation to critical issues); Eugene Volokh, *Wikipedia Law*, VOLOKH CONSPIRACY (Nov. 13, 2008, 12:18 PM), <http://www.volokh.com/2008/11/13/wikipedia-law> ("For certain uncontroversial matters . . . , citing Wikipedia is probably fine [because it can save valuable time]. But when the matter is subject to reasonable dispute, there should either be a hearing . . . or a more elaborate discussion . . .").

Along these lines, Professor Peoples has also argued that courts should not take judicial notice of Wikipedia. *See* Peoples, *supra* note 2, at 14–15. For a general discussion of judicial notice of Internet resources, including Wikipedia, see David J. Dansky, *The Google Knows Many Things: Judicial Notice in the Internet Era*, COLO. LAW., Nov. 2010, at 19.

87. *See, e.g.*, Miller & Murray, *supra* note 10, at 644–47 ("When the common definition or meaning of a phrase is at issue, definitions as agreed upon by the consensus of the Wikipedia community may be quite useful."); Peoples, *supra* note 2, at 30–32 (discussing several permissible uses for Wikipedia citations).

88. *See* Whiteman, *supra* note 64, at 63 (discussing the viability of Wikipedia and other online sources as reliable authority and concluding that "judges should still use their wisdom in choosing online sources by asking the same questions about an online source's credibility that they would ask of traditional sources"). This approach is consistent with Professor Barger's recommendation for online sources generally in her 2002 article discussing the increasing use of Internet sources in federal appellate opinions. *See* Barger, *supra* note 5, at 446 (identifying three factors, including authoritativeness of the author or publisher, extent of peer review or editorial oversight, and the stability and accessibility of the cited information via the citation provided). It is also consistent with the 2009 Guidelines issued by the Judicial Conference of the United States. *See* Guidelines, *supra* note 75, at 1–2 (identifying six criteria, including accuracy, scope of coverage, objectivity, timeliness, authority, and verifiability).

89. For example, Professor Peoples discusses several permissible uses of Wikipedia, but emphasizes that a court must "evaluate the entry to ensure it meets basic standards of quality" before citing to it. Peoples, *supra* note 2, at 33–34. Similarly, although Jason C. Miller and Hannah B. Murray take a relatively permissive view of citations to Wikipedia, they emphasize that legal authors should not cite to a particular Wikipedia article if common sense suggests that the article will not reflect the wisdom of the crowd because the crowd is not big enough (e.g., an article on an obscure topic), the crowd is unlikely to include enough knowledgeable contributors (e.g., an article on a scientific or technical issue), or because the issue is so controversial that the article is likely to reflect bias or lack of consensus (e.g., an article related to who began a war). *See* Miller & Murray, *supra* note 10, at 645, 649–51. Finally, Mr. Gerken suggests that courts and advocates should assess a Wikipedia article's reliability based on its edit history, emphasis on fact rather than opinion, and citation to authoritative sources. *See* Gerken, *supra* note 14, at

III. UNDERSTANDING WIKIPEDIA

Given the rise of digital natives, the accessibility of Wikipedia, and the continuing trend of citations to Wikipedia, the debate about citations to Wikipedia will continue. Indeed, this debate is likely to become increasingly important as its resolution will influence our understanding of authority in general. It is critical that those who are considering Wikipedia as a potential source have an understanding of Wikipedia that goes beyond the surface. Without that deeper understanding, legal writers cannot fully assess the authoritative value of Wikipedia. Understanding Wikipedia includes understanding *who* contributes to Wikipedia and *what* Wikipedia articles purport to represent in light of Wikipedia's editorial and content policies.

A. Who Is Contributing to Wikipedia?

One of Wikipedia's defining characteristics is that its content is created by a collective of anonymous "Internet volunteers."⁹⁰ Although anyone can contribute to Wikipedia, contributors⁹¹ can choose to be either registered or unregistered.⁹² But even registered contributors

224–25 (acknowledging that if an article provides citations to authoritative sources, the reader could simply consult and cite those authoritative sources instead of Wikipedia).

90. *Wikipedia: About (Archived)*, WIKIPEDIA, <http://en.wikipedia.org/w/index.php?title=Wikipedia:About&oldid=544884814> (archived version last edited Mar. 17, 2013). Whether these contributors are really "volunteers" is subject to debate. While *Wikipedia* does not pay contributors, it is entirely possible that a particular contributor is being paid for some or all of her contributions. For example, a company could hire someone to create, monitor, and edit Wikipedia articles related to that company and its business. Indeed, some entrepreneurial individuals have established businesses that offer Wikipedia authors for hire, like The Writers for Hire, Inc. and Wikipedia Writers. *See, e.g., Wikipedia Entries*, WRITERS FOR HIRE, <http://www.thewritersforhire.com/services/web-social/wikipedia/?gclid=CKfdoP3A47UCFag7MgodpAoAPA> (last visited Mar. 4, 2013); *Hire a Wikipedia Writer*, WIKIPEDIA WRITERS, <http://www.wikipediawriters.com> (last visited Mar. 4, 2013). Wikipedia does, however, have a conflict of interest policy, which "strongly discourage[s]" editing that "involves contributing to Wikipedia to promote your own interests, including your business or financial interests, or those of your external relationships, such as with family, friends or employers." *Wikipedia: Conflict of Interest (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Conflict_of_interest&oldid=579730628 (archived version last edited Nov. 1, 2013).

91. The term "contributor" is used here to describe an individual who contributes to Wikipedia by creating new content or modifying existing content, whether the modifications are significant (addition or deletion of substantive content) or minor (correction of typographical errors). For the sake of consistency, this Article will use the term "contributor" throughout, even though supporting documents may use different terms, such as editor.

92. *Wikipedia: User Access Levels (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:User_access_levels&oldid=541114936 (archived version last edited Feb. 28, 2013). Wikipedia uses the IP address of the contributor's computer to identify contributions by unregistered contributors and registered contributors who are not logged in. *Id.* Wikipedia uses the contributor's user name to identify contributions by registered contributors who are logged in. *Id.* Some articles have been given semi-protected or protected status. *See id.*

remain anonymous because contributors are identified only by their usernames.⁹³

Both courts and scholars have criticized Wikipedia as an unreliable source precisely because of the anonymity of its contributors.⁹⁴ Some courts and advocates have rejected this criticism,⁹⁵ choosing to rely on the “wisdom of the crowd,”⁹⁶ even though the individuals comprising the crowd are unknown. But the invocation of the wisdom of the crowd does not resolve questions as to the extent to which the crowd is knowledgeable on the issue addressed and, therefore, reliable as an authority for that issue. To reasonably rely on the wisdom of the Wikipedia contributor crowd as authoritative, a legal writer needs to know, at a minimum, the basic characteristics of the crowd. Fortunately, this information is available, though only to a limited degree.

Semi-protected articles can only be edited by registered contributors who have attained autoconfirmed status, which typically means that the contributor’s account is at least five days old and that the contributor has made ten or more edits. *Id.* Protected articles can only be edited by contributors who have been granted administrator rights. *Id.* Additionally, only registered contributors can create new articles. *Wikipedia: Starting an Article (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Starting_an_article&oldid=564977355 (archived version last edited July 19, 2013).

93. See *Wikipedia: Username Policy (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Username_policy&oldid=541914252 (archived version last edited Mar. 3, 2013). Contributors may, of course, use their real names, but they need not do so. *Id.* Indeed, Wikipedia warns contributors about the risks of contributing under their real names. *Id.* Contributors may also create a user page and provide information about themselves, but they are not required to do so. *Wikipedia: User Pages (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:User_pages&oldid=540322218 (archived version last edited Feb. 25, 2013). Although Wikipedia cautions users to abide by the general policies of Wikipedia when creating user pages, Wikipedia’s instructions on what may not be included in the user pages does not prohibit false information. *Id.* Perhaps such an instruction should go without saying, but history suggests otherwise. Wikipedia suffered a very public controversy in 2007, referred to as the Essay Controversy, when it came to light that an active Wikipedia contributor had falsified his academic qualifications and professional positions on his user page. See Noam Cohen, *After False Claim, Wikipedia to Check Degrees*, N.Y. TIMES, Mar. 12, 2007, at C8, available at <http://www.nytimes.com/2007/03/12/technology/12wiki.html> (discussing the so-called Essay Controversy). In the book *The Wikipedia Revolution*, Professor Andrew Lih details the Essay Controversy and the response of the Wikipedia community. LIH, *supra* note 81, at 194–200.

94. See, e.g., Richards, *supra* note 81, at 62 (“Since when did a Web site that any Internet surfer can edit become an authoritative source by which law students could write passing papers, experts could provide credible testimony, lawyers could craft legal arguments, and judges could issue precedents?”).

95. See *supra* Part I.

96. Miller & Murray, *supra* note 10, at 644.

1. How Big is the Crowd?

As an initial matter, the legal writer needs a sense of the size of the crowd—how many people are contributing to Wikipedia? This number includes both unregistered and registered contributors.

Unfortunately, it is impossible to determine the number of unique unregistered contributors.⁹⁷ Fortunately, unregistered contributors were only responsible for approximately 30% of the article edits made through January 2013.⁹⁸ Thus, registered users dominate the contributions, and knowing more about the registered users will go a long way towards describing the crowd.

Wikipedia publishes data about its registered users, which allows the quantification of the crowd to a degree. As of January 31, 2013, Wikipedia reported 18,323,161 registered users.⁹⁹ But not all registered users are contributors. Wikipedia's data for the same date reflected 4,331,641 registered users (approximately 24% of all registered users) who had made at least one edit to a Wikipedia article after becoming registered users, thus becoming registered contributors.¹⁰⁰ The size of the crowd declines dramatically, however, when the focus turns to contributors who have made more than one edit: only 1,729,190 registered users have made three or more edits; only 829,145 registered users have made ten or more edits; and only 129,717 registered users have made one hundred or more edits.¹⁰¹

To this point, the discussion has focused on cumulative activity, but Wikipedia's contributors do not remain consistent over time. Some of the registered contributors included in the cumulative data may have made a few edits and never returned. Others may

97. Unregistered contributors are tracked only by their IP addresses, which makes it impossible to know how many distinct unregistered contributors exist. See *Wikipedia: User Access Levels (Archived)*, *supra* note 92.

98. As of January 31, 2013, unregistered users had made 105,928,083 article edits to Wikipedia, which equals approximately 30% of the total number of article edits. Zachte, *supra* note 1.

99. *Statistics (Archived)*, WIKIPEDIA, <http://web.archive.org/web/20130131102410/http://en.wikipedia.org/wiki/Special:Statistics> (last modified Jan. 31, 2013) (noting that as of January 31, 2013, only 132,410 registered users had “performed an action in the last 30 days”) (accessed by searching for the page URL in the Internet Archive index).

100. Zachte, *supra* note 1 (reporting data for January 2001 through January 2013). This number includes bots. *Id.* Bots are “automated or semi-automated tool[s] that carr[y] out repetitive and mundane tasks to maintain” Wikipedia articles. *Wikipedia: Bots (Archived)*, WIKIPEDIA, <http://en.wikipedia.org/w/index.php?title=Wikipedia:Bots&oldid=539567057> (archived version last edited Feb. 22, 2013). For example, a bot might revert vandalism or remove or add protection templates to pages based on recent changes to the pages' protected status. *Id.* As of January 31, 2013, there were 731 bots working to maintain Wikipedia articles. *Statistics (Archived)*, *supra* note 99.

101. Zachte, *supra* note 1 (including bots).

have been prolific for a period of time and then tapered off. Thus, it is useful to look at the contributor data by month.

The number of active monthly contributors—defined as registered Wikipedia users who made five or more edits in a given month—reached its peak of 51,370 in March 2007.¹⁰² As the following table shows, this number has declined each year since 2007:¹⁰³

FIGURE 1—ACTIVE WIKIPEDIA
CONTRIBUTORS PER MONTH

	MAXIMUM	MINIMUM	AVERAGE
2007	51,370	39,805	45,864
2008	45,215	38,606	41,502
2009	41,910	36,827	39,241
2010	39,217	33,356	36,138
2011	37,748	33,367	35,228
2012	34,333	31,143	32,920

Similarly, the number of *very* active monthly contributors, defined as registered Wikipedia users who made 100 or more edits in a given month, reached its peak of 4,803 in March 2007 and then began to decline:¹⁰⁴

FIGURE 2—VERY ACTIVE WIKIPEDIA
CONTRIBUTORS PER MONTH

	MAXIMUM	MINIMUM	AVERAGE
2007	4,803	4,221	4,494
2008	4,179	3,934	4,081
2009	3,910	3,788	3,840
2010	3,713	3,485	3,595
2011	3,463	3,360	3,401
2012	3,349	3,181	3,273

The cumulative data and monthly data taken together suggest that the crowd is not as numerous as one may have thought. Although Wikipedia may be well known to the masses, only a small

102. *Id.* (including bots).

103. *Id.* (including bots). As this table shows, the number of active contributors has declined, on average, anywhere from 3% (2011) to 10% (2008) each year. This data reflects the number of unique registered users making five or more edits in a given month. *Id.* Of course, the users who cross the threshold in one month may not be the same users who cross the threshold the next month.

104. *Id.* (including bots).

portion of the masses take the time to join the crowd of contributors. Moreover, an even smaller portion of the masses takes the time to do so more than once.

2. The Wisdom of the Crowd or the Prolific Few?

As reflected in the previous section, some Wikipedia contributors are more prolific than others. In 2005, Wikipedia's founder, Jimmy Wales, reportedly commented that "2% of the users do 75% of the work."¹⁰⁵ Perhaps inspired by this comment, researchers have attempted to determine whether Wikipedia is really the product of the masses or the product of a few prolific contributors.

One study used Wikipedia data through mid-2006 and looked at the percentage of Wikipedia edits attributable to "elite" contributors, defined as those with ten thousand or more edits.¹⁰⁶ The researchers concluded that the percentage of edits attributable to these elite contributors had declined over time from a 59% high in late 2002 to a 10% low in mid-2006.¹⁰⁷ These researchers ascribed the decline to the increase in edits made by users with fewer than one hundred edits.¹⁰⁸ Despite the decline in edit percentage shown by the study, which treated a grammar edit as equivalent to a content-adding edit, the researchers concluded that the "percentage of work [by elite contributors] as measured by changed words . . . remain[ed] stable at about 30%."¹⁰⁹ Moreover, the researchers concluded that the edits by these elite contributors tended to be "substantial in nature," rather than minor typographical corrections, and that experienced contributors were more likely to add content than delete content.¹¹⁰ Thus, the elite contributors had a substantial impact on the substantive content of Wikipedia.

A second study assessed contribution levels based on value added, as determined by the persistence of edits and the frequency

105. See Reid Priedhorsky et al., *Creating, Destroying, and Restoring Value in Wikipedia*, in *PROCS. OF THE 2007 INTERNATIONAL ACM CONFERENCE ON SUPPORTING GROUP WORK 2* (Nov. 2007), <http://dl.acm.org/citation.cfm?doid=1316624.1316663> (citing transcript of *Jimmy Wales Talks Wikipedia*, WRITING SHOW (Dec. 5, 2005), audio available at <http://www.writingshow.com/podcasts/2006/01012006.html>); Aniket Kittur et al., *Power of the Few vs. Wisdom of the Crowd: Wikipedia and the Rise of the Bourgeoisie*, *PROC. 25TH ANN. ACM CONF. ON HUMAN FACTORS IN COMPUTING SYSTEMS 1*, 1 (2007), <http://www-users.cs.umn.edu/~echi/papers/2007-CHI/2007-05-altCHI-Power-Wikipedia.pdf> (citing an online source no longer available to support proposition that Wales said in December 2004 that half of all edits were made by 2.5% of the registered contributors).

106. Kittur, *supra* note 105, at 2, 4.

107. *Id.* at 2.

108. *Id.*

109. *Id.* at 5–6.

110. *Id.* at 6.

with which an edit was viewed.¹¹¹ This study concluded that contributors “who edit many times dominate what people see when they visit Wikipedia.”¹¹² More specifically, the study concluded that the top 10% of contributors, based on number of edits, contributed 86% of Wikipedia’s value and the top 0.1% contributed 40% of Wikipedia’s value.¹¹³

A third study, which included data through the end of 2007, looked again at whether a small set of contributors were responsible for a disproportionate share of the contributions to Wikipedia.¹¹⁴ This study concluded that more than 90% of Wikipedia’s contributions through the end of 2007 were made by less than 10% of registered contributors.¹¹⁵

Although these studies were published several years ago, Wikipedia’s recent comments on its contributor-retention problems are consistent with the idea that prolific veteran contributors dominate Wikipedia’s content. In October 2010, the Wikimedia Foundation commissioned the Editor Trends Study.¹¹⁶ The Wikimedia Foundation webpage summarizing the results of this study acknowledged that Wikipedia has been losing contributors and that the departures reflected losses of relatively new contributors, rather than veteran contributors.¹¹⁷ In a May 2011 update, the Chairman of the Wikimedia Foundation’s Board of Trustees attributed this retention problem to the fact that “it’s been getting increasingly difficult for

111. See Friedhorsky, *supra* note 105, at 2.

112. *Id.* at 5.

113. *Id.* (noting that this method of assessing contribution level seemed to mitigate the effect of bots on the analysis).

114. See José Felipe Ortega Soto, *Wikipedia: A Quantitative Analysis* 106 (Mar. 2009) (unpublished Ph.D. thesis, Universidad Rey Juan Carlos), <http://digital-rights.net/wp-content/uploads/books/ortega%20soto%20Wikipedia%20A%20quantitative%20analysis.pdf>.

115. *Id.* at 106, 158 (“[T]he most significant part of the content creation effort in Wikipedia is not undertaken by casual, passing-by authors, but by members of the core of very active contributors.”).

116. *Editor Trends Study/Results (Archived)*, WIKIMEDIA, http://strategy.wikimedia.org/w/index.php?title=Editor_Trends_Study/Results&oldid=82813 (archived version last edited May 14, 2011). The Wikimedia Foundation is a 501(c)(3) corporation with a mission “to empower and engage people around the world to collect and develop educational content under a free license or in the public domain and to disseminate it effectively and globally.” Wikimedia Found., Inc., Form 990, Return of Organization Exempt From Income Tax, at 55 (2011–2012), http://upload.wikimedia.org/wikipedia/foundation/b/b5/Form_990_-_FY_11-12_-_Public.pdf; see also Wikimedia Found., Inc., 2011–12 Annual Report 2, http://upload.wikimedia.org/wikipedia/commons/4/48/WMF-AR_2011%E2%80%9312_EN_SHIP2_17dec12_300dpi_hi-res.pdf (identifying Wikipedia as one of the “free knowledge projects” operated by the Wikimedia Foundation).

117. See *Editor Trends Study/Results (Archived)*, *supra* note 116.

people to edit the Wikimedia projects.”¹¹⁸ One Wikipedia essay suggests several reasons for the loss of new contributors, including confusing editorial policies and editorial conflicts among contributors.¹¹⁹ Whatever the reasons may be, Wikipedia’s difficulty retaining new contributors suggests that veteran contributors are steadily becoming more responsible for Wikipedia’s content.

3. What Does the Crowd Look Like?

Over the last few years, the Wikimedia Foundation has conducted three surveys of Wikipedia users.¹²⁰ These surveys provide a glimpse behind the anonymity curtain. Although each of these surveys has its limitations, they provide the best information currently available to construct a general, if imperfect, description of the Wikipedia contributor crowd.

The first survey was conducted in late 2008 by the Wikimedia Foundation and UNU-Merit (2008 Survey).¹²¹ The 2008 Survey was available to all Wikipedia users.¹²² Although the survey garnered

118. Ting Chen, *May 2011 Update (Archived)*, WIKIMEDIA, http://strategy.wikimedia.org/w/index.php?title=May_2011_Update&oldid=82025 (archived version last edited May 9, 2011).

119. *Wikipedia: Why Is Wikipedia Losing Contributors – Thinking About Remedies (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Why_is_Wikipedia_losing_contributors_Thinking_about_remedies&oldid=533373733 (archived version last edited Jan. 16, 2013).

120. Actually, the Wikimedia Foundation has conducted four surveys, but the data from the survey conducted in 2012 was still not available as of September 15, 2013. *Research: Wikipedia Editor Survey 2012 (Archived)*, WIKIMEDIA, http://meta.wikimedia.org/w/index.php?title=Research:Wikipedia_Editor_Survey_2012&oldid=5354465 (archived version last edited Mar. 30, 2013).

121. Erik Moeller, *First Preliminary Results from UNU-Merit Survey of Wikipedia Readers and Contributors Available*, WIKIMEDIA (Apr. 16, 2009), <http://blog.wikimedia.org/2009/04/16/first-preliminary-results-from-unu-merit-survey-of-wikipedia-readers-and-contributors-available> (reporting that the survey was conducted from late October to early November 2008). Unfortunately, neither the website for the 2008 Survey nor the reports associated with the 2008 Survey indicate the dates during which the survey was conducted. Collaborative Creativity Group, *Reports Wikipedia Survey Available (Archived)*, WIKIPEDIASTUDY, <http://web.archive.org/web/20140104195820/http://wikipediastudy.org/> (Mar. 24, 2010) (accessed by searching for wikipediastudy.org in the Internet Archive index). In a timely demonstration of the “link rot” that plagues citations to online sources, the website for the 2008 Survey (www.wikipediastudy.org) disappeared between the time this Article was first submitted and the time of final proofing. Alas, it can happen to the best of us. See *404 Error – File Not Found*, SSNAT, <http://ssnat.com/> (last visited Mar. 19, 2014) (“Aren't you glad you didn't cite to this webpage in . . . *Brown v. Entertainment Merchants Association*, 131 S. Ct. 2729, 2749 n.14 (2011). If you had, like Justice Alito did, the original content would long since have disappeared and someone else might have come along and purchased the domain in order to make a comment about the transience of linked information in the internet age.”).

122. See Ruediger Glott et al., UNU-MERIT, Collaborative Creativity Group, *Wikipedia Survey – Overview of Results (Archived)*, WIKIPEDIASTUDY, 3–5 (Mar. 2010), http://web.archive.org/web/20131209060146/http://wikipediastudy.org/docs/Wikipedia_Overview_15March2010-FINAL.pdf [hereinafter *2008 Survey Overview*] (accessed by searching for

176,192 responses,¹²³ the usefulness of the data for identifying the characteristics of contributors to the English-language version of Wikipedia is somewhat limited. First, the 2008 Survey was not limited to contributors, and less than 32% of the respondents reported being contributors.¹²⁴ Although the report of survey results distinguished between contributors and readers for some questions, it did not do so for all questions.¹²⁵ Second, the 2008 Survey was not limited to users of the English-language version of Wikipedia, and the report of survey results did not provide separate data for the English-language version.¹²⁶ Third, the report of survey results did not provide data on the extent to which respondents read or contributed to the English-language version of Wikipedia, although 25% of the respondents accessed the survey via the English-language version of Wikipedia.¹²⁷

The second survey was conducted in April 2011 by the Wikimedia Foundation (April 2011 Survey).¹²⁸ The April 2011 Survey garnered 5,073 responses.¹²⁹ The data from the April 2011 Survey has fewer limitations than the 2008 Survey in terms of defining the contributor crowd for the English-language version of Wikipedia.

wikipediastudy.org in the Internet Archive index); *see also* Wikimedia Found., Inc., *Wikipedia Editors Study: Results from the Editor Survey, April 2011*, WIKIMEDIA, 9 (2011), http://upload.wikimedia.org/wikipedia/commons/7/76/Editor_Survey_Report_-_April_2011.pdf [hereinafter *April 2011 Survey Report*] (noting differences in the methodology for a survey conducted in April 2011 and the 2008 Survey). Although the Wikimedia Foundation published the number of users who accessed the survey via different language versions of Wikipedia, it only published aggregate demographic data. *See id.* at 3, 7, 9.

123. *2008 Survey Overview, supra* note 122, at 3.

124. *See id.* at 6.

125. *See id.* at 4–7.

126. *See id.* at 3, 7–9 (publishing the number of users who accessed the survey via different language versions of Wikipedia, but making no distinction among users of different language versions for other questions).

127. *See id.* at 3 (noting that 43,912 out of 176,192 responders accessed the survey via the English-language version of Wikipedia).

128. The April 2011 Survey was a product of the Wikimedia Foundation's Strategic Plan, which called for regular surveys of Wikipedia contributors. *See April 2011 Survey Report, supra* note 122, at 2 (noting ties to strategic plan); *Strategic Plan/Role of the WMF (Archived)*, WIKIMEDIA, http://strategy.wikimedia.org/w/index.php?title=Strategic_Plan/Role_of_the_WMF&oldid=73377 (archived version last edited July 27, 2010) (calling for regular surveys). The Wikimedia Foundation intends to use "the April 2011 [S]urvey as a baseline for trending data on Wikipedia editors." *April 2011 Survey Report, supra* note 122, at 9.

129. *April 2011 Survey Report, supra* note 122, at 45. The survey was completed by 5,151 respondents, but 178 were excluded as part of the "data cleaning process," which included omitting any respondent who reported being younger than twelve or older than eighty-two. *Id.* The survey report does not indicate the rationale for using this criteria to exclude respondents. *See id.* According to a Wikimedia page discussing the survey, the *April 2011 Survey Report* omits data received from those taking the survey in Japan because the data was received too late. *See Editor Survey 2011 (Archived)*, WIKIMEDIA, http://meta.wikimedia.org/w/index.php?title=Editor_Survey_2011&oldid=4876688 (archived version last edited Dec. 20, 2012).

Unlike the 2008 Survey, for which only one-third of the respondents were contributors,¹³⁰ the April 2011 Survey captured responses from a population in which 97% reported making at least one edit to Wikipedia.¹³¹ Additionally, the majority of respondents (60%) reported making five hundred or more edits since they began editing Wikipedia, with almost half of respondents (44%) reporting more than two thousand edits.¹³² Almost all of the respondents were registered users.¹³³ Like the 2008 Survey, the April 2011 Survey was available to users of any Wikipedia version, but 76% of the contributors in the April 2011 Survey reported contributing to the English-language version of Wikipedia.¹³⁴ Thus, the April 2011 Survey appears to provide a good snapshot of the contributor crowd for the English-language version of Wikipedia.

The third survey was conducted in December 2011 by Wikimedia Foundation (December 2011 Survey). The December 2011 Survey garnered 6,660 responses.¹³⁵ Notably, this survey provides responses from many new individuals, as over half of the respondents to the December 2011 Survey reported that they did not respond to the April 2011 Survey.¹³⁶ Like the April 2011 Survey, the December 2011 Survey targeted contributors, who made up at least 79% of the

130. See *2008 Survey Overview*, *supra* note 122, at 5.

131. *April 2011 Survey Report*, *supra* note 122, at 46. Some of the data reported for the April 2011 Survey is reported for contributors only. *E.g.*, *id.* (Question D2). Other questions, however, include all survey respondents. *E.g.*, *id.* (Question D3a). Some of the demographic questions, like education level and gender, include responses from all survey respondents. *Id.* at 46–49. Given that only 3% of the survey respondents were noncontributors, however, this lack of differentiation has minimal effect. *Id.* at 46.

132. *Id.* The reported frequency of editing broke down as follows: 19% with 1–50 edits, 18% with 51–500 edits, 16% with 501–2,000 edits, 24% with 2,001–10,000 edits, and 20% with more than 10,000 edits. *Id.*

133. *Id.* at 51–52 (reporting that only 2% of respondents self-reported as unregistered users). Unlike the 2008 Survey, the April 2011 Survey targeted registered users. *Id.* at 42 (noting efforts taken to prevent sample skewing towards more frequent contributors). Although the *April 2011 Survey Report* states that the survey was “limited” to registered users, *id.*, this stated limitation is inconsistent with the responses to Question 3 indicating that 2% of responders self-reported as unregistered users. *Id.* at 51–52. Thus, it seems that the report used the term “limited” loosely. It is more likely that while the survey was promoted to registered users, access to the survey was not so limited.

134. *Id.* at 50.

135. Wikimedia Found., Inc., *Second 2011 Wikipedia Editor Survey: December 2011*, WIKIMEDIA, 5 (2012), https://upload.wikimedia.org/wikipedia/commons/8/84/December_2011_Wikipedia_Editor_Survey_topline.pdf [hereinafter *December 2011 Survey Report*]. The *December 2011 Survey Report* does not provide an overview indicating the total number of valid responses received. This number is the highest “base” number of responses on any question that would not permit multiple responses. Given the varying “base” response numbers, it appears that many questions, including demographic questions, were optional.

136. *Id.* at 2 (reporting that 58% did not respond to the April 2011 Survey and 25% can’t remember whether they did or not).

respondents.¹³⁷ Additionally, the majority of respondents (67%) who answered the question about how many edits they had made reported making more than one hundred edits since they began editing Wikipedia, with almost half of respondents (43%) reporting more than one thousand edits.¹³⁸ Like the respondents in the April 2011 Survey, almost all of the December 2011 Survey respondents were registered users.¹³⁹ Also like the April 2011 Survey, the December 2011 Survey was available to users of any Wikipedia version, but approximately 63% of the contributing respondents reported contributing to the English-language version of Wikipedia.¹⁴⁰ Thus, the December 2011 Survey appears to provide a second snapshot of the contributor crowd for the English-language version of Wikipedia.

With these three surveys in hand, one can extrapolate certain key characteristics of Wikipedia contributors. Specifically, the surveys provide information about the gender, age, education, geographic location, and primary language of Wikipedia contributors.¹⁴¹ From this information, one can hypothesize that an individual contributor to Wikipedia (i) is most likely male; (ii) is most likely younger than forty years old; (iii) likely has a high school diploma or an undergraduate degree, including an associate's degree; (iv) most likely does not live in the United States; and (v) may not speak English as his primary language.

137. *Id.* at 3. The exact percentage is difficult to determine because of the way the survey was constructed. Respondents were asked to identify how many edits they had made since they began editing Wikipedia. *Id.* Although this question implies that the respondent has made at least one edit, the possible answers included "0-10." *Id.* Thus, a noncontributor could respond to the question with this answer. This question garnered 6,227 responses. *Id.* If only the contributors answered this question, then contributors made up approximately 93% of the survey respondents (6,227 of 6,660). If noncontributors also answered this question, then at least 79% of the respondents contributed to Wikipedia based on the number of survey respondents who chose responses other than "0-10" versus those respondents who either did not respond or chose the "0-10" response. *Id.*

138. *Id.* The reported frequency of editing broke down as follows: 16% with 0–10 edits, 12% with 11–50 edits, 6% with 51–100 edits, 24% with 101–1,000 edits, 19% with 1,001–5,000 edits, and 24% with more than 5,000 edits. *Id.*

139. *Id.* at 10 (only 4% of responders self-reported as unregistered users). As with the April 2011 Survey, the December 2011 Survey was described as "limited" to registered users. *Research: Wikipedia Editors Survey November 2011 (Archived)*, WIKIMEDIA, http://meta.wikimedia.org/w/index.php?title=Research:Wikipedia_Editors_Survey_November_2011&oldid=4064407 (archived version last edited Aug. 24, 2012). Given that some respondents self-reported as unregistered users, however, it seems more likely that while the survey may have been promoted to registered users, access to the survey was not so limited.

140. *December 2011 Survey Report*, *supra* note 135, at 8. This question garnered 6,361 responses. *Id.* Presumably, a respondent who did not contribute would not respond, although it is possible that a respondent who did contribute also chose not to respond.

141. Unfortunately, none of the surveys asked respondents to identify their race. See *2008 Survey Overview*, *supra* note 122; *April 2011 Survey Report*, *supra* note 122; *December 2011 Survey Report*, *supra* note 135.

Gender. Wikipedia contributors are overwhelmingly male. The results of all three surveys confirm that the gender gap not only exists, it is gaping. In the 2008 Survey, 87% of all contributors were male.¹⁴² In the April 2011 Survey, 91% of all contributors were male.¹⁴³ In the December 2011 Survey, 90% of all respondents answering the question were male.¹⁴⁴ Thus, the gender gap is undeniable.

Age. Wikipedia contributors are spread across several age groups. In the 2008 Survey, the mean age for a Wikipedia contributor was just over twenty-six years old.¹⁴⁵ Although the 2008 Survey did not provide detailed age data for contributors, 76.1% of the survey respondents were between ten and twenty-nine years old, with 48.7% of the survey respondents falling between ten and twenty-one years old.¹⁴⁶

The data from the April 2011 Survey and the December 2011 Survey (collectively, the 2011 Surveys), however, suggests that the contributors are more evenly distributed across several age groups, though the data does indicate that contributors are most likely to be under forty years old.¹⁴⁷ The chart below reflects the age data from the April 2011 Survey¹⁴⁸ and the December 2011 Survey:¹⁴⁹

142. 2008 Survey Overview, *supra* note 122, at 7.

143. April 2011 Survey Report, *supra* note 122, at 49.

144. December 2011 Survey Report, *supra* note 135, at 34 (based on 6,503 responses). Although the December 2011 Survey Report did not distinguish between contributors and readers on this question, at least 79% of the respondents were contributors. See *supra* note 137 and accompanying text for additional discussion of the reader versus contributor composition.

145. 2008 Survey Overview, *supra* note 122, at 7 (reporting “average” age of 26.14 years).

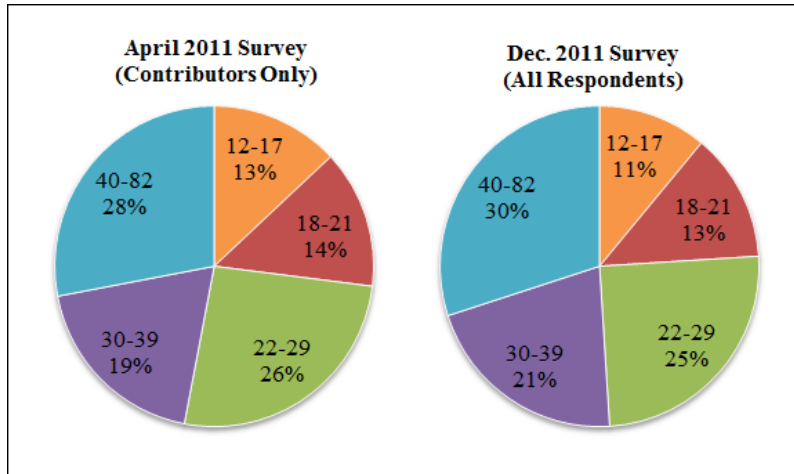
146. Ruediger Glott & Rishab Ghosh, UNU-MERIT, Collaborative Creativity Group, *Analysis of Wikipedia Survey Data – Topic: Age and Gender Differences (Archived)*, WIKIPEDIASTUDY, 5 (Mar. 2010), http://web.archive.org/web/20131209054105/http://wikipediastudy.org/docs/Wikipedia_Age_Gender_30March%202010-FINAL-3.pdf (accessed by searching for wikipediastudy.org in the Internet Archive index). Although these numbers reflect responses from all respondents, not just contributors, a separate analysis indicates that the share of readers versus contributors in a given age bracket shows only minimal changes across the age brackets. *Id.* at 20.

147. The difference between the results of the 2008 Survey and the results of the 2011 Surveys may be due to the passage of time or the different characteristics of the targeted survey respondents, which are discussed *infra* Part III.A.3.

148. April 2011 Survey Report, *supra* note 122, at 46. For reasons that are not explained, the April 2011 Survey Report excluded all responses by individuals who claimed to be younger than twelve years old. *Id.* at 45.

149. December 2011 Survey Report, *supra* note 135, at 33. This question received 6,318 responses. The December 2011 Survey Report does not indicate the youngest age given and does not segregate the data for contributors versus noncontributors. *Id.* Although the December 2011 Survey Report did not distinguish between contributors and readers on this question, at least 79% of the respondents were contributors. See *supra* notes 137 and accompanying text for additional discussion of the reader versus contributor composition.

FIGURE 3—AGE DISTRIBUTION
AS REFLECTED IN THE 2011 SURVEYS



Thus, at the time of the 2011 Surveys, approximately 70% of Wikipedia contributors reported being less than forty years old, and approximately 50% reported being less than thirty years old.

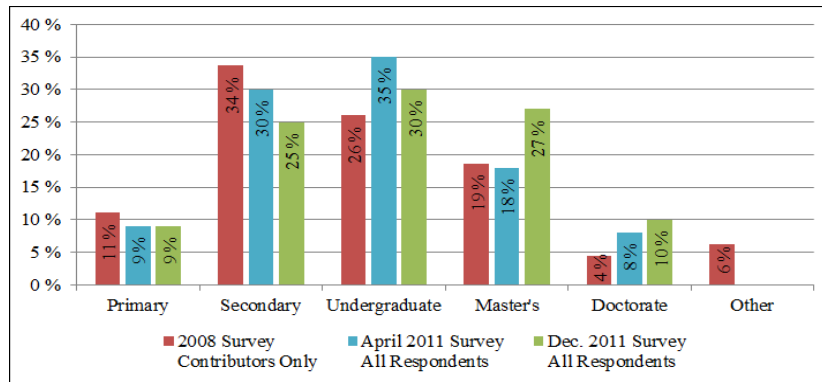
Education. All three surveys suggest that Wikipedia contributors have a wide range of education levels.¹⁵⁰ Individuals with primary (grade school) or secondary (high school) education made up 45% of the contributors responding to the 2008 Survey and more than one-third of the respondents to the 2011 Surveys.¹⁵¹ Individuals with an undergraduate degree, which is defined by the surveys to include both bachelor's degrees and associate's degrees, made up another 30–35% of all respondents.¹⁵²

150. See *2008 Survey Overview*, *supra* note 122, at 7; *April 2011 Survey Report*, *supra* note 122, at 46–47; *December 2011 Survey Report*, *supra* note 135, at 33. Although the 2011 Surveys did not report this data for contributors only, the majority of respondents to both surveys were contributors. See *April 2011 Survey Report*, *supra* note 122, at 46; *December 2011 Survey Report*, *supra* note 135, at 3.

151. See *supra* note 150 and accompanying text.

152. See *supra* note 150 and accompanying text.

FIGURE 4—EDUCATION LEVEL
AS REFLECTED IN THE 2008 & 2011 SURVEYS



Of course, while these results indicate that a fair number of survey respondents have advanced degrees, there is no way to know whether any of the contributions by a respondent with an advanced degree were on the subject in which the degree was earned. For example, a contributor with a doctorate in education leadership is free to contribute to Wikipedia articles on education leadership, multiple sclerosis, the Higgs particle, or jet skis.

Location & Primary Language. As previously noted, the majority of respondents to both the April 2011 Survey and the December 2011 Survey reported contributing to the English-language version of Wikipedia, at 76% and 63%, respectively.¹⁵³ Of course, English is spoken throughout the world as both a primary and secondary language.

It is perhaps not surprising, then, that only a small percentage of the respondents to the 2011 Surveys reported living in the United States. In the April 2011 Survey, only 20% of all respondents reported living in the United States.¹⁵⁴ In the December 2011 Survey, only 13% of respondents reported living in the United States.¹⁵⁵

Similarly, only half of the 2011 Survey respondents reported speaking English as a primary language. In the April 2011 Survey, 52% of all respondents reported speaking English as their primary

153. *April 2011 Survey Report*, *supra* note 122, at 50; *December 2011 Survey Report*, *supra* note 135, at 8. The *2008 Survey Overview* discloses which Wikipedia version the respondents used to access the survey, but it does not disclose whether the respondents contributed to the English-language version of Wikipedia or other versions. *2008 Survey Overview*, *supra* note 122, at 3.

154. *April 2011 Survey Report*, *supra* note 122, at 47–48.

155. *December 2011 Survey Report*, *supra* note 135, at 5.

language.¹⁵⁶ In the December 2011 Survey, 53% of respondents reported speaking English as their primary language.¹⁵⁷

Though limited in some respects, this data on the gender, age, education, geographic location, and primary language of Wikipedia contributors provides the legal writer with a better understanding of *who* contributes to Wikipedia. With this understanding, the legal writer can better assess Wikipedia's value as an authoritative source.

B. What Does a Wikipedia Article Represent?

In addition to understanding *who* contributes to Wikipedia, a legal writer considering Wikipedia as an authoritative source needs to understand *what* those contributions represent. Wikipedia has a number of editorial and content policies in place that shape the substance of the articles. For purposes of understanding exactly what a Wikipedia article represents, the most important policies are (1) the consensus policy, (2) the verifiability policy, (3) the no-original-research policy, and (4) the neutral-point-of-view policy. The consensus policy is an editorial policy that explains Wikipedia's "fundamental model for editorial decision-making."¹⁵⁸ The verifiability policy, the no-original-research policy, and the neutral-point-of-view policy make up Wikipedia's "core content policies," which explain the "type and quality of material that is acceptable in Wikipedia articles."¹⁵⁹

1. Consensus Policy

Wikipedia articles are fluid. A contributor creates an article, which then exists in its original form until someone makes a change to the article.¹⁶⁰ Once a change is made, the change may be left in place or reverted—returning the article to its previous form.¹⁶¹ Depending

156. *April 2011 Survey Report*, *supra* note 122, at 48.

157. *December 2011 Survey Report*, *supra* note 135, at 7.

158. *Wikipedia: Consensus (Archived)*, WIKIPEDIA, <http://en.wikipedia.org/w/index.php?title=Wikipedia:Consensus&oldid=543811386> (archived version last edited Mar. 13, 2013) (describing the process of reaching consensus). Wikipedia identifies the consensus policy as one of twelve "conduct policies." *Id.*

159. *Wikipedia: Core Content Policies (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Core_content_policies&oldid=563408184 (archived version last edited July 8, 2013).

160. *Wikipedia: Starting an Article (Archived)*, *supra* note 92.

161. *Wikipedia: Consensus (Archived)*, *supra* note 158.

on the interest in a given topic and the age of the article, an article may have a handful of edits or tens of thousands of edits.¹⁶²

Consensus is the “fundamental model for editorial decision-making.”¹⁶³ Consensus is typically obtained through the normal editorial process. That is, “[a]ny edit that is not disputed or reverted by another [contributor] can be assumed to have consensus.”¹⁶⁴ But what if there is a dispute?

According to Wikipedia’s consensus policy, contributors who disagree about an edit should work together to achieve consensus. The interested contributors are encouraged to discuss the dispute on the article’s talk page and work together to reach an agreement on a course of action, which may include agreeing on a “less-than-perfect compromise” that neither contributor views as producing a perfect article.¹⁶⁵

Consensus is achieved either when the interested contributors explicitly agree on a course of action or when the “losing” side stops participating in the discussion.¹⁶⁶ Consensus can be achieved even if all interested contributors cannot agree on a course of action. Rather, a closing editor or administrator may review the discussion, decide that “rough consensus” exists, and announce the course of action agreed upon.¹⁶⁷ Although the consensus decision is ideally based on

162. *Compare Jalal al-Din Mahmud: Revision History*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Jalal_al-Din_Mahmud&action=history (last visited Mar. 19, 2014, 6:58 PM) (showing only twelve edits between the time the page was created in January 2008 and the time the Author last visited the page) (permalink unavailable), *with Wikipedia: Database Reports/Pages with the Most Revisions (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Database_reports/Pages_with_the_most_revisions&oldid=536347540 (archived version last edited Feb. 3, 2013) (identifying 281 Wikipedia articles with more than 10,000 revisions as of July 30, 2011, with the George W. Bush article in first place with 44,435 revisions and the List of WWE Personnel in second place with 34,479 revisions) (follow permalink provided; then sort by ID; then review pages with ID 0, which indicates the Wikipedia namespace for Wikipedia articles). Not surprisingly, the Wikipedia articles in the top ten for most revisions cover topics that draw significant public interest and are likely to invite both serious and mischievous contributions, including Michael Jackson, Jesus, Britney Spears, World War II, Adolf Hitler, and the Catholic Church. *See id.*

163. *Wikipedia: Consensus (Archived)*, *supra* note 158 (describing the process of reaching consensus).

164. *Id.*

165. *Id.* During the consensus-reaching process, however, the article need not remain static. Indeed, one suggested method for resolving the dispute is making compromise edits. *Id.*

166. *See id.* Notably, interested contributors may not simply keep reverting each other’s edits, as this would constitute edit warring and expose the contributors to sanctions, including being blocked. *Id.*

167. *Wikipedia: Closing Discussions (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Closing_discussions&oldid=542348428 (archived version last edited Mar. 6, 2013) (noting that some discussions do not need to be formally closed because the outcome of the consensus is obvious, while others require formal closure so that “the community can move on”); *see also Wikipedia: Requests for Comment (Archived)*, WIKIPEDIA,

the merits, a recent study has concluded that disputed edits to highly controversial articles typically are not resolved on the merits.¹⁶⁸ Rather, the disputes end as a result of “outside intervention, sheer exhaustion, or the evident numerical dominance of one group.”¹⁶⁹

Consensus is not always possible. In those circumstances, the status quo will usually prevail.¹⁷⁰ In such cases, the article—at least some portion of it—no longer reflects consensus, but it will remain available to readers in its nonconsensus form. Similarly, while the interested contributors are working towards consensus, an article will often be in flux, with proposed edits appearing, disappearing, and returning in modified form until the contributors can reach consensus.¹⁷¹ Thus, at any given moment, an article may or may not reflect consensus. The reader who wants to know whether the article reflects consensus will need to look beyond the article itself and invest time in reviewing and understanding the edit history and discussions surrounding that history.¹⁷²

2. Verifiability Policy

Verifiability is the first of Wikipedia’s three “core content policies.”¹⁷³ The verifiability policy requires that information on Wikipedia be verifiable, meaning that the information must come from a reliable, published source.¹⁷⁴ Further, “all quotations and any

http://en.wikipedia.org/w/index.php?title=Wikipedia:Requests_for_comment&oldid=543751451 (archived version last edited Mar. 13, 2013) (discussing the procedures for using the Request for Comment process to obtain outside input to help reach consensus).

168. Taha Yasseri et al., *Dynamics of Conflicts in Wikipedia*, PLOS ONE, June 2012, at 1, 11, <http://www.plosone.org/article/fetchObjectAttachment.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0038869&representation=PDF>.

169. *Id.*

170. *See Wikipedia: Consensus (Archived)*, *supra* note 158 (noting that lack of consensus regarding a deletion will usually result in keeping the content and lack of consensus regarding an addition will usually result in leaving the article in its pre-edit state). There are some circumstances that result in a change to the article. For example, a lack of consensus regarding contentious content related to living people will typically end with the removal of the contentious content. *Id.*

171. *See id.*

172. *See infra* notes 235, 238, 240–42 and accompanying text. An article may or may not include a disclaimer notifying the reader of any disputes over content. *See infra* note 243 and accompanying text.

173. *Wikipedia: Verifiability (Archived)*, WIKIPEDIA, <http://en.wikipedia.org/w/index.php?title=Wikipedia:Verifiability&oldid=546523604> (archived version last edited Mar. 23, 2013). The ordinals here refer only to the order of discussion, as Wikipedia’s three core content policies “complement each other” and do not have a priority ranking of first, second, or third. *See Wikipedia: Core Content Policies (Archived)*, *supra* note 159.

174. *Id.*

material [whose verifiability has been] challenged or is likely to be challenged must be attributed to a reliable, published source.”¹⁷⁵

Under this policy, the minimum requirement for inclusion in a Wikipedia article is verifiability, not truth.¹⁷⁶ In other words, even if a statement is true, if a contributor cannot support it with a reliable, published source, the verifiability policy precludes adding the true statement to the article.¹⁷⁷ The converse is true as well: A statement with support from an apparently reliable, published source may persist even if it is false.¹⁷⁸

Wikipedia’s verifiability policy statement expands on the sources that qualify as reliable. As an initial matter, Wikipedia indicates that the type of work, the author, and the publisher all affect the assessment.¹⁷⁹ The policy favors “third-party, published sources with a reputation for fact-checking and accuracy.”¹⁸⁰ The policy excludes unpublished materials and most self-published materials.¹⁸¹

3. No-Original-Research Policy

Wikipedia’s policy against original research is the second of Wikipedia’s three “core content policies.”¹⁸² According to this policy, “Wikipedia does not publish original thought.”¹⁸³ Rather, Wikipedia articles should merely report what is “directly and explicitly supported” by a reliable, published source.¹⁸⁴

In furtherance of Wikipedia’s prohibition on original research, Wikipedia has a strong preference for secondary and tertiary

175. *Id.* The verifiability policy does not require attribution for all material. Rather, as explained in Wikipedia’s page describing the no-original-research policy, Wikipedia only requires that the material be “*attributable . . . even if not actually attributed.*” *Wikipedia: No Original Research (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:No_original_research&oldid=543743131 (archived version last edited Mar. 13, 2013). Only quotations and material that is challenged or likely to be challenged require actual attribution. *Id.*

176. *Wikipedia: Verifiability (Archived)*, *supra* note 173, at n.1 (“This principle was previously expressed on this policy page as ‘the threshold for inclusion is verifiability, not truth.’”).

177. *Wikipedia: No Original Research (Archived)*, *supra* note 175 (“Even if you’re sure something is true, it must be verifiable before you can add it.”).

178. *See id.* As discussed in the next two sections, the no-original-research policy and the neutral-point-of-view policy can have significant impact in such situations.

179. *Wikipedia: Verifiability (Archived)*, *supra* note 173.

180. *Id.*

181. *See id.*

182. *Wikipedia: No Original Research (Archived)*, *supra* note 175.

183. *Id.*

184. *Id.*

sources.¹⁸⁵ By contrast, the use of primary sources is generally discouraged, though not prohibited.¹⁸⁶ Wikipedia defines primary sources as “original materials that are close to an event,” such as a witness statement about an accident, a scientific paper documenting a new experiment, or a historical document.¹⁸⁷ Wikipedia defines secondary sources as sources that “provide[] an author’s own thinking based on primary sources.”¹⁸⁸ Thus, an article critiquing a scientific paper documenting a new experiment would be a secondary source. Finally, Wikipedia defines tertiary sources as publications that “summarize primary and secondary sources,” such as textbooks or encyclopedias.¹⁸⁹

According to Wikipedia’s policy, the reason for preferring secondary and tertiary sources over primary sources is to “establish the topic’s notability and to avoid novel interpretations of primary sources.”¹⁹⁰ Thus, Wikipedia permits citation to a primary source to “make straightforward, descriptive statements of facts that can be verified by any educated person with access to the source but without further, specialized knowledge.”¹⁹¹ What a contributor may not do, however, is provide any interpretation or synthesis of the primary source based only on a citation to the primary source.¹⁹² For that, the contributor must cite to a secondary or tertiary source.

For example, assume that Wikipedia has an article discussing a murder case against a high-profile actor. Assume further that the defendant’s wife testified that she was watching television with the defendant from 5:00 p.m. to 8:00 p.m. on the night in question. Finally, assume that the defendant’s wife later admitted that she went to the grocery store at 6:30 p.m. on the night in question and was gone for half an hour. Per Wikipedia’s policy against original research, a Wikipedia contributor could quote the wife’s testimony and cite to the transcript for the purpose of establishing that the witness actually said the words quoted. The contributor could not, however, say that the witness’s testimony conflicted *unless* the contributor could cite to a secondary or tertiary source that “directly and explicitly” supported

185. *See id.* (“Wikipedia articles should be based on reliable, published secondary sources and, to a lesser extent, on tertiary sources.”).

186. *See id.* (“[P]rimary sources that have been reliably published may be used in Wikipedia; [sic] but only with care, because it is easy to misuse them.”).

187. *Id.*

188. *Id.*

189. *Id.*

190. *Id.*

191. *Id.*

192. *See id.* (“Any interpretation of primary source material requires a reliable secondary source for that interpretation.”).

this statement.¹⁹³ Absent a secondary or tertiary source, the assessment of conflicting testimony would be original research, despite the fact that the transcript clearly reflects the conflict.

Notably, however, Wikipedia does not *require* citation to the primary source even for the basic facts.¹⁹⁴ Although a contributor *may* cite to the transcript to support the testimony quotation, the contributor *may also* cite to a secondary or tertiary source for that same information.¹⁹⁵ Indeed, Wikipedia’s admonition that articles should primarily rely on secondary sources arguably suggests that secondary sources are always preferable, although Wikipedia’s policy also indicates that deciding on the most appropriate source is a “matter of good editorial judgment and common sense.”¹⁹⁶

4. Neutral-Point-of-View Policy

Wikipedia’s neutral-point-of-view policy is the third of Wikipedia’s three “core content policies.”¹⁹⁷ This policy requires Wikipedia contributors to “represent[] fairly, proportionately, and as far as possible without bias, all significant views that have been published by reliable sources.”¹⁹⁸

This policy does not require that Wikipedia present *all* views or even all views reported in reliable, published sources. Rather, this policy requires only that the article present all *significant* or *notable* views based on reliable, published sources.¹⁹⁹ Moreover, Wikipedia instructs that the various viewpoints should be represented “in proportion to the prominence of each viewpoint in the published, reliable sources.”²⁰⁰ Thus, minority views should not be given “undue weight” by affording them too much attention in

193. *Id.*

194. *See id.* (noting the preference for secondary and tertiary sources).

195. *See id.*

196. *Id.* One Wikipedia contributor has opined that there is widespread misunderstanding among Wikipedia contributors about primary, secondary, and tertiary sources such that they tend to “take this concept much farther [sic] than it’s supposed to be [taken] and fall into the trap of thinking that secondary sources are by default preferable to primary sources when this is not true.” NTox, Comment to *Wikipedia Talk: No Original Research (Archived)*, WIKIPEDIA (Jan. 1, 2013, 2:06 UTC), http://en.wikipedia.org/w/index.php?title=Wikipedia_talk:No_original_research&oldid=543577517 (archived version last edited Mar. 12, 2013).

197. *Wikipedia: Neutral Point of View (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Neutral_point_of_view&oldid=546732527 (archived version last edited Mar. 24, 2013).

198. *Id.*

199. *See id.* (using significant and notable interchangeably and stating that “Wikipedia policy does not state or imply that every minority view or extraordinary claim needs to be presented along with commonly accepted mainstream scholarship”).

200. *Id.* (discussing due and undue weight).

comparison to more mainstream views.²⁰¹ Indeed, according to the neutral-point-of-view policy, a viewpoint held by a very small minority “does not belong in Wikipedia regardless of whether it is true or not and regardless of whether you can prove it or not, except perhaps in some ancillary article.”²⁰²

To further assist contributors in maintaining a neutral point of view, Wikipedia’s policy provides a series of instructions for setting forth opinions and facts. For example, contributors are instructed to “avoid stating opinions as facts” and to state “seriously contested assertions” as opinions, rather than facts.²⁰³ On the other hand, contributors are instructed to “avoid presenting uncontested factual assertions as mere opinion.”²⁰⁴

The consensus policy, the verifiability policy, the no-original-research policy, and the neutral-point-of-view policy all work together to shape the content of a Wikipedia article. Informed by these policies, the legal writer should understand that a Wikipedia article is intended to be a product of compromise that repeats information found in published and reliable, but preferably secondary or tertiary, sources, with popular viewpoints being given greater or even exclusive weight over minority viewpoints, as determined by the frequency with which a viewpoint is repeated in the published sources. It is a collaboratively authored, potentially unstable summary that does not necessarily reflect the full wisdom of the crowd or the authoritative view of experts. Rather, it is a fluid and possibly contested synthesis of whatever authorities a particular subset of volunteer editors have gathered on the topic at the time.

IV. PUTTING WIKIPEDIA IN ITS PLACE

With this fuller understanding of the *who* and *what* of Wikipedia, the legal writer can better assess the authoritative value of Wikipedia. While a court-imposed categorical ban on citations to

201. *Id.*

202. *Id.* (citing to a post by Jimmy Wales, founder of Wikipedia).

203. *Id.*

204. *Id.* Contributors cannot always agree on when these instructions apply and when they do not. For example, on the talk page for the Haymarket Affair, several contributors engaged in a debate about whether certain statements presented points of view, although they were stated as fact. *Talk: Haymarket Affair (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Talk:Haymarket_affair&direction=prev&oldid=546779432#Sourcing_.2F_POV (archived version last edited Jan. 18, 2013). The debate fizzled out soon after it began, although it does not appear that there was any resolution on the merits. Rather, the individual who raised the issue simply went away. *Id.* This is consistent with a 2012 study of highly controversial articles, which concluded that disputes are typically not resolved on the merits. *See* Yasseri, *supra* note 168, at 11.

Wikipedia is appealing, such a ban is ultimately not a viable solution. Similarly, while designating Wikipedia as “good enough” for some insignificant purposes is also appealing, this approach ignores the ripple effect of such citations. Thus, legal writers must realize that when facing a nontraditional source like Wikipedia, they must proceed with extreme caution and undertake a critical analysis of the source’s authoritative value. In the case of Wikipedia, a critical analysis of the source requires the legal writer to look beyond the surface and understand the contours of the Wikipedia contributor crowd and the policies shaping Wikipedia’s content. This critical analysis reveals weaknesses in some of the assumptions underlying the justifications offered for relying on Wikipedia.

A. *The False Allure of a Court-Imposed Categorical Ban*

A court-imposed categorical ban on citations to Wikipedia is, admittedly, very appealing. As discussed in Part I, both courts and advocates have relied on Wikipedia for a wide range of purposes, including support of propositions important to the resolution of disputed and outcome-determinative issues. The size and demographics of the Wikipedia contributor crowd and the content and editorial policies discussed in Part III increase, rather than resolve, the concerns raised by Wikipedia’s open-source, anonymous editing format.²⁰⁵ Courts could address these concerns and stop the Wikipedia citation trend in its tracks by adopting rules prohibiting advocates from citing to Wikipedia and adopting internal policies prohibiting citation to Wikipedia in opinions.

Indeed, there is precedent for such a ban. Until 2006, when Federal Rule of Appellate Procedure 32.1²⁰⁶ went into effect, some federal courts prohibited the citation of unpublished opinions.²⁰⁷ Even after the adoption of Rule 32.1, some federal courts continue to discourage the citation of unpublished opinions to the extent

205. See *supra* Part III; *infra* Part IV.C.

206. Federal Rule of Appellate Procedure 32.1 provides that “[a] court may not prohibit or restrict the citation of federal judicial opinions, orders, judgments, or other written dispositions that have been: (i) designated as ‘unpublished,’ ‘not for publication,’ ‘non-precedential,’ ‘not precedent,’ or the like; and (ii) issued on or after January 1, 2007.” FED. R. APP. P. 32.1.

207. See, e.g., 7TH CIR. R. 53(b)(2)(iv) (repealed Dec. 27, 2006) (stating that unpublished orders “shall not be cited or used as precedent”).

permitted by Rule 32.1.²⁰⁸ Similarly, some state courts still prohibit citation to unpublished opinions.²⁰⁹

Yet, a categorical ban is probably not a viable solution. First, the Wikipedia train has left the station. The willingness of many judges, including prominent jurists like Judge Richard A. Posner, to accept Wikipedia as an authoritative source in at least some limited circumstances suggests that a uniform court-imposed categorical ban is unlikely.²¹⁰ At this point, insisting that such a ban is the only appropriate response would ignore the reality of the situation.²¹¹

Second, legal writers are turning more and more frequently to nontraditional sources.²¹² Wikipedia is just one of those nontraditional sources, and concerns about the authoritative value of a source affect the entire category, not just one source within it. As Professor Frederick Schauer has noted, it is not at all clear that “Wikipedia should be relegated to a lower category of authoritativeness” than many other nontraditional sources.²¹³ A ban focused on Wikipedia would be too myopic and would fail to address

208. See, e.g., 4TH CIR. R. 32.1 (providing that citations to unpublished opinions issued before January 1, 2007, are “disfavored”); 9TH CIR. R. 36-3 (prohibiting citation to unpublished opinions except in specified circumstances).

209. See, e.g., WIS. STAT. § 809.23(3)(a) (2013) (prohibiting citation to unpublished opinions except in specified circumstances).

210. See Whiteman, *supra* note 64, at 53 (“Once a source has reached this level of acceptability, it is here to stay as legal authority.”); see also *supra* note 35 (discussing Judge Posner’s take on Wikipedia).

211. See Diane Murley, *In Defense of Wikipedia*, 100 LAW LIBR. J. 593, 595–96 (2008) (“Since Wikipedia is obviously being used and cited, research instructors need to teach researchers to evaluate Wikipedia articles so they can use and cite them intelligently.”).

212. See Dansky, *supra* note 86, at 20–24 (discussing judicial notice of a variety of nontraditional resources, including government and nongovernment websites and online dictionaries); Allison Orr Larsen, *Confronting Supreme Court Fact Finding*, 98 VA. L. REV. 1255, 1287–89 (discussing the United States Supreme Court’s increasing use of nontraditional sources, including citations to print and digital newspapers and magazines, government agency websites, and nonprofit organization websites); Miller & Murray, *supra* note 10, at 653–55 (discussing courts’ reliance on UrbanDictionary.com).

213. Schauer, *Authority and Authorities*, *supra* note 6, at 1961 n.77. By way of example, Professor Schauer points to the United States Supreme Court’s decision in *Bush v. Gore*, in which the Court relied on an article in the *Omaha World-Herald* to provide empirical data about electoral behavior. *Id.* (citing *Bush v. Gore*, 531 U.S. 98, 103 (2000)). As Professor Schauer explained in a different article, the author of the *Omaha World-Herald* article was “a twenty-nine-year-old reporter for the *World-Herald* who was so junior upon his arrival at the paper a few years earlier that the only office that could be found for him was a quickly converted closet, resulting in his colleagues referring to him as ‘Closet Boy.’” Frederick Schauer, *The Dilemma of Ignorance: PGA Tour, Inc. v. Casey Martin*, 2001 SUP. CT. REV. 267, 287 n.62 (2001). While the information in the article may well have been accurate, the Court’s reliance on a newspaper article for these statistics without some explicit assessment of the author’s expertise “does give pause about the Court’s sophistication in locating nonlegal information, even the nonlegal information that seems important to the Court’s decisions.” *Id.*

the larger context in which the Wikipedia-as-authority phenomenon is taking place.

B. Is “Good Enough” Really Good Enough in the Legal Context?

In contrast with the categorical ban is the question of whether there are some purposes for which citation to Wikipedia is generally acceptable, without an individualized assessment of the authoritative value of the source for a given point. That is, are there circumstances where the stakes are so low that Wikipedia is “good enough” as a general rule?

As some have noted, citations to Wikipedia to support undisputed or noncritical assertions save time that might not be well spent tracking down a “better” citation for the relatively trivial assertion.²¹⁴ Accepting Wikipedia as a source for even trivial matters, however, has consequences for Wikipedia’s status as an authoritative source in general.

The mere fact that the citation exists, regardless of its tangential purpose, legitimizes Wikipedia as an authoritative source for broader purposes. As Professor Schauer has explained, the concern is “that to recognize something as authority, even optional and non-conclusive authority, is to take it seriously as a source and thus to treat its guidance and information as worthy of respect.”²¹⁵ Indeed, the increase in citations to Wikipedia in opinions has had a demonstrable “cumulative effect,” lending “an aura of credibility” to Wikipedia.²¹⁶ Before the Wikipedia citation trend was in full swing, one court concluded that Wikipedia held no persuasive weight, noting that it found only one “nonpublished/nonciteable” case referencing Wikipedia.²¹⁷ A few years later, however, another court rejected the argument that an expert opinion relying on Wikipedia was inadmissible, noting that “the frequent citation of Wikipedia at least suggests that many courts do not consider it to be inherently

214. *E.g.*, Peoples, *supra* note 2, at 27.

215. Schauer, *Authority and Authorities*, *supra* note 6, at 1956.

216. Gerken, *supra* note 14, at 222.

217. English Mountain Spring Water Co. v. Chumley, 196 S.W.3d 144, 149 (Tenn. Ct. App. 2005) (“Given the fact that this source is open to virtually anonymous editing by the general public, the expertise of its editors is always in question, and its reliability is indeterminable.”).

unreliable.”²¹⁸ The Utah Court of Appeals echoed this sentiment just two years ago.²¹⁹

Moreover, when a court asserts a proposition, it lends its own authority to that proposition, and the original source cited in support of the proposition may well get lost.²²⁰ For example, imagine a case where the Seventh Circuit considers testimony during which the witness used the term “baby mama.” To provide rhetorical flair, the court defines the term “baby mama” and looks to Wikipedia for the definition, since the term has no legal significance in the case. In a subsequent hypothetical case before the United States District Court for the Northern District of Illinois, however, the term “baby mama” is integral to the issues in the case, e.g., whether the reference has racist overtones.²²¹ In that subsequent case, the Seventh Circuit’s off-hand definition may suddenly take on new importance, and the definition’s genesis in a Wikipedia article may be overshadowed by the Seventh Circuit’s ratification of that definition. Indeed, the definition could eventually be divorced from its Wikipedia origins.²²²

218. *Alfa Corp. v. OAO Alfa Bank*, 475 F. Supp. 2d 357, 362 (S.D.N.Y. 2007); *see also* Gerken, *supra* note 14, at 221 (discussing *Alfa* as an example of the cumulative effect of citations to Wikipedia).

219. *See* *Fire Ins. Exch. v. Oltmanns*, 285 P.3d 802, 805 n.1 (Utah Ct. App. 2012) (“[T]he increasing trend of using Wikipedia in judicial opinions over the last decade seems to demonstrate a growing recognition of its value in some contexts . . .”).

220. As Professor Barger has noted, courts do not have the luxury of relying on “questionable sources” because today’s dicta may be tomorrow’s law. Barger, *supra* note 5, at 447 (“The case law handed down by appellate courts, for the published opinions at least, is the primary authority that others will rely upon tomorrow. Even dicta and non-majority opinions can provide the inspiration for someone’s good faith argument to change the law at a later date.”).

221. The term “baby mama” was, in fact, at issue in *State v. Harris*, No. 2008AP810-CR, 2009 WL 129878 (Wis. Ct. App. Jan. 21, 2009), *rev’d*, 786 N.W.2d 409 (Wis. 2010). Both the majority and the dissent cited to a Wikipedia entry, among other nontraditional sources, in support of their opposing views regarding whether the trial court’s use of the term reflected racial bias. *See id.* at *3 n.5; *id.* at *8 n.7 (Brennan, J., dissenting). On review, the Wisconsin Supreme Court noted that the State disputed the reliability of the Wikipedia article, although the State also noted that the Wikipedia article did not incorporate race references into its definition of the term. *State v. Harris*, 786 N.W.2d 409, 421 (Wis. 2010). The court did not take up the reliability of the article, but it generically referred to the “general popular understanding” of the term without reference to any specific source. *Id.* at 421 (concluding that the trial court’s use of the term did not reflect racial bias).

222. Under Bluebook Rule 10.6.2, when an author cites a case that cites or quotes another case for the point cited, the author should include a “citing” or “quoting” parenthetical. *See* THE BLUEBOOK: A UNIFORM SYSTEM OF CITATION R. 10.6.2, *supra* note 2, at 100–01. Arguably, this rule does not require such a parenthetical unless the original authority is a case, although most authors would probably still include the parenthetical. In any event, Rule 10.6.2 only requires one level of recursion. *Id.* To see how this could play out, assume Case A is a Seventh Circuit case citing to Wikipedia and Case B is another Seventh Circuit case citing to Case A, with a parenthetical reference to Wikipedia. An author citing to Case A should probably include a citing parenthetical referencing the Wikipedia entry. Under Rule 10.6.2, however, the author could cite to Case B and offer a citing parenthetical to Case A, without any reference to

Given the ripple effects of relying on any source, “good enough” should not be acceptable in the legal context. If a proposition is important enough to merit inclusion and nonobvious enough to require supporting authority, then the sources cited to support even uncontroversial or tangential propositions should be able to withstand a critical analysis of their authoritative value.²²³

Moreover, finding a better source than Wikipedia should not be that difficult. By design, Wikipedia is an echo chamber. Pursuant to Wikipedia’s verifiability policy and its no-original-research policy,²²⁴ any information included in a Wikipedia article must come from a reliable, published source.²²⁵ Thus, if the proposition cannot readily be found in another source, perhaps one cited by the Wikipedia article itself, then the article may violate Wikipedia’s own policies. This violation, of course, calls the authoritative value of the article further into question.²²⁶

C. *The Measured Response: Individualized Critical Assessment*

If a categorical ban is not a viable solution and preapproval for certain inconsequential uses also presents problems, the legal writer is left with individualized critical assessment. That is, the answer to the question of whether a legal writer may cite to Wikipedia must

Wikipedia. Thus, the definition’s genesis in Wikipedia would be obfuscated by the normal operation of the citation rules. In effect, Rule 10.6.2 launders the proposition, washing it clean of its questionable source (here, Wikipedia) and attaching it to a traditional source (here, a case).

223. Some commentators have suggested that citations to Wikipedia may be occurring more frequently, at least in scholarly works, because “citation norms have evolved to demand citations for undisputed facts that would require hours of trudging through reference materials for an unnecessary citation,” such as the fact that there are 52 cards in a deck or the fact that Ebert & Roper review movies with a “thumbs up, thumbs down” system. Christine Hurt, Comment to *When is it Appropriate to Cite to Wikipedia?*, CONCURRING OPINIONS (Feb. 5, 2007, 3:28 PM), http://www.concurringopinions.com/archives/2007/02/when_is_it_appr.html#comments; see also Baker, *supra* note 2, at 398 (concurring with this sentiment). For a tongue-in-cheek solution to this problem, see Orin S. Kerr, *A Theory of Law*, 16 GREEN BAG 2D 111, 111 (2012).

224. See *supra* Parts III.B.2 and III.B.3 for a fuller discussion of the verifiability policy and the no-original-research policy.

225. *Wikipedia: Verifiability (Archived)*, *supra* note 173; *Wikipedia: No Original Research (Archived)*, *supra* note 175.

226. See Baker, *supra* note 2, at 369 (noting that there is either a better source available or the article violated Wikipedia’s policies and should not be relied upon); Gerken, *supra* note 14, at 225 (asserting that an article “should be treated with suspicion” if it lacks citations to “recognized authorities”). Notably, the Judicial Conference of the United States’ Guidelines for evaluating online sources lists “verifiability” as one of six criteria that judges should consider to evaluate the authoritative value of online sources. Guidelines, *supra* note 75, at 2. Expanding on this criterion, the Guidelines encourage judges to consider whether there is a “second reliable source” and whether the source at issue “cite[s] to its sources of information.” *Id.*

depend on whether the Wikipedia article in question has sufficient authoritative value to support the proposition.

In assessing the authoritative value of a given source, commentators have described the relevant criteria in various ways.²²⁷ Among other things, however, the evaluation criteria emphasize the authority or expertise of the source's author or publisher²²⁸ and the procedures the source has in place to ensure that the information provided is both accurate and current.²²⁹ In the context of Wikipedia, these points of evaluation merge to some degree, as the Wikipedia contributor crowd—or members of it—serve both as authors and reviewers. In addition, Wikipedia's editorial and content policies dictate the manner in which the Wikipedia contributor crowd should behave in creating content.

Accordingly, in assessing Wikipedia as a source, the legal writer must understand who contributes to Wikipedia and what the contributions represent. The known crowd size and demographic data discussed in Part III.A along with the editorial and content policies discussed in Part III.B should inform a legal writer's assessment of a Wikipedia article's authoritative value. Specifically, based on her knowledge of the *who* and *what*, a legal writer assessing Wikipedia should keep in mind that: (1) Wikipedia does not necessarily reflect the wisdom of the crowd; (2) the Wikipedia contributor crowd may not be representative of a target population; and (3) Wikipedia's editorial and content policies emphasize verifiability, not truth.

1. Wikipedia Articles Do Not Necessarily Reflect the Wisdom of the Crowd

By virtue of Wikipedia's editing structure, a legal writer cannot know the precise identity of the author(s) of a Wikipedia article.

227. See, e.g., Barger, *supra* note 5, at 446 (suggesting a focus on the authorship or publication by an "authoritative entity or person," use of "peer review or editorial oversight to ensure [the source's] accuracy and currency," and stability and accessibility of the source to those following the citation); Guidelines, *supra* note 75, at 1–2 (suggesting a focus on accuracy, scope of coverage, objectivity, timeliness, authority, and verifiability).

228. See, e.g., Barger, *supra* note 5, at 446 (suggesting that researchers should "satisfy themselves that . . . the material has been written or published by an authoritative entity or person"); Guidelines, *supra* note 75, at 2 (expanding on the "authority" criterion with questions like "Can you determine the name of the author and publisher?" and "Is the author a recognized expert on the topic?").

229. See, e.g., Barger, *supra* note 5, at 446 (suggesting that researchers should "satisfy themselves that . . . the material has been subjected to some form of peer review or editorial oversight to ensure its accuracy and currency"); Guidelines, *supra* note 75, at 1 (expanding on the "accuracy" criterion with questions like "Is it a peer-reviewed source?" and "Does the publisher use editors and fact checkers?").

Thus, a legal writer cannot know the precise qualifications of the author(s) in connection with the subject matter. At first blush, this limitation seems to make it impossible to conclude that the author(s) have sufficient expertise to render the article's content authoritative.²³⁰

Wikipedia proponents, however, would assert that this analysis ignores the wisdom (or expertise) of the crowd. In other words, when a legal writer relies on a Wikipedia article, she is looking to the crowd, rather than an individual, to provide the expertise. The legal writer's underlying assumptions are that the crowd has vetted the article in its existing form and that she can trust the crowd's collective wisdom to ensure reliable, accurate, and current information. The writer assumes that Wikipedia contributors have added or deleted content as appropriate and necessary.

Any legal writer considering relying on Wikipedia should assess the validity of this assumption against not only the information known about a specific article, but also the information known about Wikipedia in general. The contributor data and editorial policies discussed in Part III demonstrate three points critical to this assessment.

First, the Wikipedia contributor crowd is limited.²³¹ The number of *contributors* to Wikipedia at any given time is not as vast as commonly believed.²³² Moreover, there is evidence that the majority of Wikipedia content is contributed by an even smaller subset of contributors—the prolific few.²³³ Even if every Wikipedia article has been thoroughly vetted by the crowd, the crowd itself may be too limited to provide a vetting process that justifies reliance.

Second, assuming that the Wikipedia contributor crowd is large enough, the crowd has not necessarily vetted a specific article or piece of an article on Wikipedia. Wikipedia itself admonishes readers that “many articles start out by giving one—perhaps not particularly evenhanded—view of the subject” such that the vetted, consensus form of the article will be created gradually and only “after a long process of discussion, debate, and argument.”²³⁴ Even that gradual

230. That is not to say that the authors do not *have* such expertise. It may well be that a preeminent expert on the subject matter is one of the authors of the article. The point here is simply that Wikipedia's anonymous anyone-can-edit model prevents one from knowing the information necessary to make that connection.

231. See *supra* Parts III.A.1, III.A.2.

232. See, e.g., Miller & Murray, *supra* note 10, at 644 (“The availability of millions of editors also provides a method for correcting errors.”).

233. See *supra* Part III.A.2.

234. *Researching with Wikipedia (Archived)*, *supra* note 7.

process, however, may not necessarily occur.²³⁵ Wikipedia has no methodical review process. Contributors pick and choose articles, or portions of articles, to vet, which may result in an article that is subjected to very limited review. For example, an article on historical figure Jalal al-Din Mahmud has existed for more than six years,²³⁶ but it has had only twelve edits since its creation.²³⁷ Moreover, five of the twelve edits were automated edits made by bots,²³⁸ and eight of the twelve edits have been classified as minor edits making superficial changes like typographical corrections.²³⁹ This lack of editing suggests that the crowd may not have vetted the article,²⁴⁰ but that information is only disclosed by a review of the article's edit history.²⁴¹ Even for articles with a substantial edit history, a contributor who edits one piece of information has not necessarily attended to other information in the same article.

Third, pursuant to Wikipedia's editorial and content policies, a Wikipedia article at a given point in time may not necessarily reflect the wisdom of the crowd, even if the crowd has vetted the article. As discussed in Part III, the consensus policy requires disputes about the content of a Wikipedia article to be resolved by consensus. Thus, the final product may well be a compromise that no one in the crowd believes is correct. Moreover, Wikipedia articles do not go "offline" while the consensus-building process takes place.²⁴² Rather, the

235. As Mr. Gerken notes, a researcher can and should look at the edit history of an article to get a sense of the volume of edit activity. Gerken, *supra* note 14, at 224. However, edit quantity does not necessarily disclose a crowd vetting the article's content, as the quantity may be generated by a handful of active contributors or contributors making typographical corrections without vetting the content. The edit quantity may also be artificially inflated by bot activity. See *supra* note 100 (describing bot activity).

236. *Jalal al-Din Mahmud: Revision History*, *supra* note 162.

237. *Id.*; see also *Help: Minor Edit (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Help:Minor_edit&oldid=544857625 (archived version last edited Mar. 17, 2013).

238. *Id.* A bot is "an automated or semi-automated tool that carries out repetitive and mundane tasks to maintain" Wikipedia articles. *Wikipedia: Bots (Archived)*, *supra* note 100. With 731 active bots as of January 2013, it is not surprising that an article's edit history might reflect edits by one or more bots. See *Statistics (Archived)*, *supra* note 99. According to Wikipedia's bot policy, bots "make automated edits without the necessity of human decision-making." *Wikipedia: Bot Policy (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Wikipedia:Bot_policy&oldid=576872813 (archived version last edited Oct. 12, 2013).

239. *Id.*; see also *Help: Minor Edit (Archived)*, *supra* note 237.

240. It is also possible that an article was written so well that the crowd has vetted the article and simply felt no need to edit it. Wikipedia's structure, however, provides no means of confirming that this has taken place.

241. Of course, this kind of in-depth research defeats the "quick and easy" appeal that leads many to cite Wikipedia in the first place.

242. See *supra* Part III.B.1 (discussing the consensus process).

article remains available to the reader.²⁴³ As discussed above, the article may remain static during the dispute, or it may be in flux. Wikipedia acknowledges that articles “may become caught up in a heavily unbalanced viewpoint and can take some time—months perhaps—to regain a better-balanced consensus.”²⁴⁴ If consensus cannot be achieved, the article will remain online, typically in its predispute form, but it will no longer reflect consensus.²⁴⁵ Finally, consensus within Wikipedia’s policies may well be achieved by virtue of one side outlasting the other, until the “losing side” simply disengages.²⁴⁶ Although this process may result in consensus under Wikipedia’s definition, it may also result in an article that does not incorporate the wisdom of the crowd.

2. The Wikipedia Contributor Crowd May Not Be Representative of a Target Population

Evaluating the authoritative value of a source requires evaluating the qualifications of its author(s) to speak to the particular point for which the legal writer intends to use the source. Although the Wikipedia model does not allow this assessment on an individualized basis, some have suggested that the crowd-sourced knowledge of Wikipedia can suffice, at least for some purposes. In particular, some have argued that sometimes the very expertise needed is the expertise of the crowd, such as when the legal writer needs the common usage of a term.²⁴⁷ In the event a legal writer has decided that the crowd may be sufficiently authoritative, the legal writer must still conclude that the Wikipedia contributor crowd is

243. The article may or may not include a disclaimer notifying the reader of the dispute. Contributors have the ability to include a warning at the top of an article notifying readers that content is in dispute for one reason or another. For example, if a contributor believes an article contains “several dubious statements, or if a dispute arises,” the contributor can begin a discussion on the talk page and paste a warning in the article itself. *See Wikipedia: Accuracy Dispute (Archived)*, Wikipedia, https://en.wikipedia.org/w/index.php?title=Wikipedia:Accuracy_dispute&oldid=549949113 (archived version last edited Apr. 12, 2013). Of course, contributors may neglect to add the warning, or another contributor can remove the warning, just like any other content.

244. *Researching with Wikipedia (Archived)*, *supra* note 7.

245. *See supra* Part III.B.1 (discussing the consensus process).

246. *See supra* Part III.B.1. Wikipedia’s consensus policy assumes that consensus exists when the text remains static and there is no ongoing discussion about the disputed content. *See supra* Part III.B.1.

247. *See, e.g.*, Miller & Murray, *supra* note 10, at 646 (“Wikipedia is an appropriate source when the wisdom of the crowd is valuable on its own.”). This Article does not take up the debate about whether an anonymous crowd can ever really be considered authoritative. Rather, the focus here is on bringing to light the information known about the crowd so that legal writers have better information to inform their own critical assessment of the authoritative value of a Wikipedia article.

sufficiently representative of the target population to speak with authority on the point the article is intended to support.²⁴⁸

Based on the survey data discussed in Part III, the legal writer can conclude that Wikipedia contributors are diverse in some ways and similar in others. The contributors are overwhelmingly male. While they range in age, most are under forty years old. Some earned graduate degrees, and some have no more than a primary school education. But a majority have either a high school education or an undergraduate or associate's degree. Finally, most live outside the United States, and just over half speak English as a primary language.²⁴⁹

Although each legal writer should assess the impact this information has in a given case, it is not difficult to imagine circumstances where this data would be cause for concern, even in cases where the opinion of a truly representative crowd could be useful. For example, if the issue in a case is whether a term carries negative connotations regarding gender, it is relevant that the Wikipedia contributor crowd is overwhelmingly male. Similarly, if the issue in a case focuses on common usage of a term in the United States, it is relevant that a significant portion of the Wikipedia contributor crowd lives outside of the United States and speaks a language other than English as a primary language.²⁵⁰

The legal writer should also be aware of the gaps in information about the demographics of the crowd. The surveys

248. From an anecdotal perspective, scholars have taken different views about the extent to which a Wikipedia article can be assumed to reflect the common wisdom. *Compare* Gerken, *supra* note 14, at 218 (“Certainly, [the Wikipedia article] would suggest a consensus among that sub-set of the population who are inclined to edit Wikipedia. Absent evidence that these people are in some way unrepresentative of the general public, Wikipedia might prove in these circumstances to be a reliable indicator of common usage.”), *with* Baker, *supra* note 2, at 370 (“[I]t is not accurate to state that ‘Wikipedia reflects the consensus wisdom of all its editors.’ At best, a particular Wikipedia entry reflects the consensus view of the relatively small collection of relatively similar people who edited that entry.”).

249. *See supra* Part III.A.3. The age and education information are particularly relevant to a legal writer's assessment of whether she can reasonably conclude that a Wikipedia article is authored by individuals who have the necessary experience and knowledge to identify, assess, and accurately summarize the secondary and tertiary sources that Wikipedia articles echo.

250. As discussed *supra* in Part III.A.3, the majority of respondents to both the April 2011 Survey and the December 2011 Survey reported contributing to the English-language version of Wikipedia, at 76% and 63%, respectively. *April 2011 Survey Report*, *supra* note 122, at 50; *December 2011 Survey Report*, *supra* note 135, at 8. In both surveys, 20% or less of all respondents reported living in the United States. *April 2011 Survey Report*, *supra* note 122, at 47–48 (20% reported living in the United States); *December 2011 Survey Report*, *supra* note 135, at 5 (13% reported living in the United States). Similarly, only half of the respondents in both surveys reported speaking English as their primary language. *April 2011 Survey Report*, *supra* note 122, at 48 (52% reported speaking English as their primary language); *December 2011 Survey Report*, *supra* note 135, at 7 (53% reported speaking English as their primary language).

discussed in Part III did not shed any light on the racial diversity—or lack thereof—of Wikipedia’s contributors. At least one court has turned to Wikipedia to determine whether use of a term reflected racial bias.²⁵¹ Of course, the extent to which a term is understood or recognized as reflecting racial bias could vary depending upon the demographics of the individuals defining the term. If Wikipedia’s contributor crowd is as homogenous in terms of race as it is in terms of gender, relying on Wikipedia to provide insight into the racial connotations a term carries would be problematic.

3. Wikipedia’s Editorial and Content Policies Emphasize Verifiability, Not Truth

When legal writers cite to authorities to support a point, the underlying assertion is that the authority states a truthful proposition. Thus, in assessing the authoritative value of Wikipedia as a source for a given point, a legal writer must understand the effect that Wikipedia’s editorial and content policies may have on the accuracy of the information reflected in the article.

Wikipedia defines itself as a source that presents information that can be supported by published, reliable sources.²⁵² Essentially, Wikipedia functions as an echo chamber, repeating what secondary and tertiary sources have said. This echo chamber, created by the verifiability policy, is reinforced by the no-original-research policy.²⁵³ Working in tandem, these two policies provide that even if a primary source clearly contradicts secondary and tertiary sources, a Wikipedia contributor cannot identify the contradiction until another secondary or tertiary source does it first.²⁵⁴ Even then, the

251. See, e.g., *State v. Harris*, No. 2008AP810-CR, 2009 WL 129878 (Wis. Ct. App. Jan. 21, 2009), *rev’d*, 786 N.W.2d 409 (Wis. 2011) (considering whether use of the term “baby mama” reflected racial bias).

252. See *supra* Part III.B.2 for a discussion of the verifiability policy.

253. See *supra* Part III.B.3 for a discussion of the no-original-research policy.

254. Timothy Messer-Kruse, a professor at Bowling Green State University, has recounted his own experience with these policies. See Timothy Messer-Kruse, *The ‘Undue Weight’ of Truth on Wikipedia*, CHRON. HIGHER EDUC. (Feb. 12, 2012), <http://chronicle.com/article/The-Undue-Weight-of-Truth-on/130704>. According to Professor Messer-Kruse’s recounting, he attempted to edit a Wikipedia article on the Haymarket Riot, which repeated the common refrain found in secondary sources that there was no evidence offered against the defendants during their trial. *Id.* Professor Messer-Kruse, however, had reviewed the original trial documents, which revealed this statement to be false. See *id.* He removed the statement from the Wikipedia article and provided citations to the original documents and one of his own peer-reviewed articles. *Id.* In response, his edit was reverted, and he was admonished to review and comply with the undue weight policy and the verifiability policy, with emphasis on the need for reliable *secondary* sources and the difference between truth and verifiability. *Id.* At least some of these exchanges can still be found in Wikipedia’s behind-the-scenes edit history, as well as

undue-weight component of the neutral-point-of-view policy requires that an alternative view be given only so much attention as its status in the scholarship suggests it is due.²⁵⁵ As one Wikipedia contributor put it, “[i]f all historians save one say that the sky was green in 1888, our policies require that we write ‘Most historians write that the sky was green, but one says the sky was blue’ (as absurd as that seems).”²⁵⁶ In fact, this Wikipedia contributor’s treatment of the lone historian’s view is generous. Wikipedia’s policies do not require recognition of all alternative views. Rather, the undue weight component of Wikipedia’s neutral-point-of-view policy permits a contributor to classify the alternative view—here, that the sky was blue—as a “fringe” view that need not be recognized at all, given that it has only one supporter against many.²⁵⁷

Even assuming a legal writer is satisfied that the verifiability policy is adequate, a legal writer should also be satisfied that the article complies with the verifiability policy. Certain accuracy challenges are inherent in resources, like Wikipedia, that serve as echo chambers. Wikipedia describes itself as a tertiary source, meaning that its primary function is simply to summarize other sources,²⁵⁸ with a preference for secondary and tertiary sources.²⁵⁹ Like any source, the further one gets from the original source, the more risk there is that the original source has been inadvertently

Professor Messer-Kruse’s user page. *Talk: Haymarket Affair, Difference between Revisions, Revision as of 17:37, 22 Jan. 2009 (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Talk:Haymarket_affair&diff=265741113&oldid=265740457 (last visited Jan. 6, 2014); *Talk: Haymarket Affair, Difference between Revisions, Revision as of 17:41, 22 Jan. 2009 (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Talk:Haymarket_affair&diff=prev&oldid=265741836 (last visited Jan. 6, 2014); *Talk: Haymarket Affair, Difference between Revisions, Revision as of 17:57, 22 Jan. 2009 (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=Talk:Haymarket_affair&diff=prev&oldid=265744976 (last visited Jan. 6, 2014); *User Talk: MesserKruse (Archived)*, WIKIPEDIA, http://en.wikipedia.org/w/index.php?title=User_talk:MesserKruse&oldid=538128955 (archived version last edited Feb. 14, 2013).

255. See *supra* Part III.B.4 for a discussion of the neutral-point-of-view policy.

256. Malik Shabazz, Comment on *User Talk: MesserKruse (Archived)*, WIKIPEDIA (Aug. 26, 2011, 21:47 UTC), http://en.wikipedia.org/w/index.php?title=User_talk:MesserKruse&oldid=538128955 (archived version last edited Feb. 14, 2013).

257. *Wikipedia: Neutral Point of View (Archived)*, *supra* note 197 (discussing the undue weight policy). In fact, as explained in Wikipedia’s verifiability policy statement, “exceptional claims,” including “challenged claims that are supported purely by primary or self-published sources” and claims “contradicted by the prevailing view within the relevant community,” require multiple supporting sources. *Wikipedia: Verifiability (Archived)*, *supra* note 173.

258. *Wikipedia: No Original Research (Archived)*, *supra* note 175 (defining tertiary sources and identifying Wikipedia as an example).

259. *Id.* (stating a preference for secondary and tertiary sources and urging caution with primary sources).

misrepresented.²⁶⁰ This risk is inherently greater if the contributors to the source lack experience in locating, analyzing, or summarizing reliable sources. Given that the survey results previously discussed suggest that approximately one-fourth of contributors are between twelve and twenty-one years old²⁶¹ and approximately one-third of contributors have a high school education or less,²⁶² it is reasonable to conclude that a fair number of Wikipedia contributors lack this experience. Thus, a legal writer would be well advised to locate and review the sources cited in the article to confirm that they support the propositions for which they are cited.²⁶³

V. CONCLUSION

The advent of Wikipedia and other technological advances has changed legal research. It is unrealistic to believe that the legal community can ignore that reality. It is also unrealistic to believe that the legal community can satisfactorily resolve the concerns raised by an ever-increasing list of nontraditional sources on a one-by-one basis, if only because the changes will likely outpace the rules.

What the legal community *can* do—indeed, what it must do—is demand that legal writers understand a potential source and critically assess it before relying on it. By citing to any source, the legal writer affirms that the source is not only supportive of the point for which it is asserted but also that it is an authoritative source for that point.²⁶⁴ Thus, the legal writer must apply rigorous scrutiny to nontraditional sources that do not easily fit into the traditional hierarchical

260. This risk has materialized in Wikipedia articles. *See, e.g.*, MesserKruse, *Haymarket Friendly Fire*, Comment on *User Talk: Malik Shabazz/Archive 21*, WIKIPEDIA (Aug. 26, 2011, 20:41 UTC), http://en.wikipedia.org/w/index.php?title=User_talk:Malik_Shabazz/Archive_21&oldid=451356211 (archived version last edited Sept. 19, 2011) (analyzing the secondary sources cited in support of a proposition and noting that the first source actually does not support the proposition and that the second source relies on the first one and an unsigned letter to the editor, which would be a questionable source).

261. *See supra* Figure 3 at p. 886.

262. *See supra* Figure 4 at p. 887.

263. The Guidelines issued by the Judicial Conference of the United States appear to contemplate this sort of quality control, as questions posed under both the “accuracy” criterion and the “authority” criterion are directed at whether a second reliable source confirms the facts or information at issue. *See* Guidelines, *supra* note 75, at 1–2. Indeed, even Wikipedia suggests this course of action. *Researching with Wikipedia (Archived)*, *supra* note 7 (“Where articles have references to external sources (whether online or not) read the references and check whether they really do support what the article says.”). Of course, if the researcher takes the time to consult these sources, then the time-saving benefit of citing to Wikipedia is significantly diminished, if not eliminated.

264. *See* Schauer, *Authority and Authorities*, *supra* note 6, at 1957 (“A citation to a particular source is not only a statement by the citer that this is a good source but also a statement that sources of this type are legitimate.”).

categories of authority. In order to do that, however, the legal writer cannot be satisfied with a cursory understanding of the source. Rather, she must dig deeper to make sure that the author(s) or publisher of the source have the expertise necessary to speak with authority and that the source has appropriate procedures in place to ensure that the information provided is both accurate and current. Failure to undertake this critical assessment—even for collateral references—risks undermining confidence in the law.

With respect to Wikipedia in particular, a cursory understanding of Wikipedia as an online collaborative encyclopedia that anyone can edit merely scratches the surface. Before a legal writer embraces Wikipedia as an authoritative source, she must understand, at a minimum, who the contributors are and what the contributions represent. Moreover, based on that knowledge, she must critically assess whether she can reasonably conclude that the Wikipedia article is authoritative for the purpose for which she intends to cite it. As demonstrated in this Article, the contours of the Wikipedia contributor crowd and the content and editorial policies controlling Wikipedia's content call into question some of the assumptions underlying the common justifications for reliance on Wikipedia. Accordingly, the legal writer should proceed with extreme caution when it comes to relying on Wikipedia.