

# 1 The Many (Reported) Deaths of Wikipedia

Joseph Reagle

Wikipedia's death has been predicted many times in its twenty years through four periods of dour prognostication. Though this history shows making predictions is foolhardy, Wikipedia, no doubt, has many years of life ahead of it.

Many Wikipedians can recall a favorite article that has since been deleted. My forsaken favorite is "Failed Predictions," one of the two thousand articles deleted on a November day over a decade ago. I appreciated how the article evidenced shortsighted thinking about technology given the many dismissals of the radio, telephone, and computer. Some quotes were apocryphal, such as Bill Gates's purported claim that "640K [of memory] ought to be enough for anybody," but I believed the article could have been improved with time. Despite similar lists having survived, "Failed Predictions" was expunged in 2007 from the English-language version of Wikipedia—the focus of this essay.

Although we lost Wikipedia's article on failed predictions, we gained Wikipedia itself as a topic of prognostication. Some have claimed that the young Wikipedia was a joke, that it wasn't an encyclopedia, that it would fail; mid-life, some claimed that the English Wikipedia was dying or dead; more recently, we have seen claims of its demise and extinction. Claims about Wikipedia's death are not included in its "List of Premature Obituaries," but the topic does have a stub.

I began following Wikipedia in 2004 as a graduate student interested in wikis and blogs. When it came time to choose between the two, I chose Wikipedia. Blogs tended to be insular and snarky. Wikipedia had its conflicts, but people were at least attempting to work together on something worthwhile. Plus, its historical antecedents and popular reception were fascinating. In 2010 I published a book about Wikipedia's history, culture, and

controversies: *Good Faith Collaboration*.<sup>1</sup> And at that point, I thought the dismal predictions about Wikipedia were over. Yet they continued.

As Wikipedia's twentieth-anniversary approaches, I look back on those who spoke about the project's future to understand why they doubted the "encyclopedia anyone can edit" could make it this long. (See chapter 2 for a broader take on Wikipedia press coverage.) I discern four periods of prognostication within which people expressed skepticism or concern about Wikipedia's early growth, nascent identity, production model, and contributor attrition. Given how often such bleak sentiments are expressed as premature obituaries, we'll see that I am not alone in thinking of Mark Twain's quip about exaggerated reports of his death.

### Early Growth (2001–2002)

Not all predictions about Wikipedia falling short have been from its critics. The earliest predictions, from its founders no less, were not ambitious enough.

As I've written before, Wikipedia can be thought of as a happy accident—a provocation to those who confuse Wikipedia's eventual success with its uncertain origins.<sup>2</sup> The encyclopedia that anyone can edit was initially part of a project of an elect few. Jimmy Wales, the entrepreneur behind Bomis, a men's oriented web portal, had hired Larry Sanger, a new philosophy PhD, to launch Nupedia, an encyclopedia for the new millennium. Although Nupedia was online and inspired by open source, Nupedia's experts worked within a rigorous multitiered process. And it was slow going: by the end of 2000, only two articles had been completed. Wales likened Nupedia's process to being back in graduate school: an intimidating grind.

To shake things up, Wales and Sanger set up a wiki in January 2001. They hoped it would lead to some drafts for Nupedia, but their expectations were modest. Wales feared that the wiki would be overrun with "complete rubbish" and that Nupedians "might find the idea objectionable."<sup>3</sup> My reconstruction of the first ten thousand edits to Wikipedia does show a lot of dreck, but it was fertile stuff, being produced and improved at a remarkable rate.<sup>4</sup> Wikipedians hoped to one day have 100,000 articles—a scale a bit larger than most print encyclopedias. In July, Sanger predicted that if Wikipedia continued to produce a thousand articles a month, it would be close to that in about seven years. Amazingly, in less than seven years, in

September 2007 the English Wikipedia reached two million articles, some twenty times Sanger's estimate.

Wales's initial pessimism and Sanger's modest estimate are humbling in hindsight. Yet such mistakes can now be taken as a source of pride. This is not true of the modest expectations of Wikipedia's first critic.

Peter Jacso, a computer science professor, regularly published "Peter's Picks & Pans" in a journal for information professionals. In the spring 2002 issue, he panned Wikipedia, likening it to a prank, a joke, or an "outlet for those who pine to be a member in some community." Jacso dismissed Wikipedia's goal of producing one hundred thousand articles; he wrote, "That's ambition," as this "tall order" was twice the number of articles in the sixth edition of the *Columbia Encyclopedia*.

When I asked Jacso about this pan from seventeen years ago, he had not given it much thought. To be fair, he published over eighty "Picks & Pans" between 1995 and 2009. And he now concedes that Wikipedia has "worked exceptionally well" thanks to the thousands of contributors working under "constantly updated guidelines." Jacso's early skepticism arose because so many other projects had failed: "I did not anticipate that the free Wikipedia service could realize what even the richest companies such as Microsoft failed to do, as demonstrated by the trials and tribulation of the subscription-based *Encarta*."<sup>5</sup>

Jacso and Wikipedia's founders exemplify three ways of thinking about the future. Like Jacso, people look to similar projects to get a sense of what is feasible: even established and well-funded projects had failed to create sustainable online encyclopedias. Or, like Sanger, people extrapolate linearly; in this case, taking the first six months of Wikipedia as the norm for the next seven years. The only model people didn't make use of was exponential growth, which characterized Wikipedia article creation until about 2007. In "Why Technology Predictions Go Awry," Herb Brody identified this cause as *underestimating a revolution*.<sup>6</sup> Now, hopeful entrepreneurs default to this model in their predictions, but this is only because of early examples such as Wikipedia.

### Nascent Identity (2001–2005)

Just as Wikipedia's emergence and initial growth confounded early expectations, the identity that we now take for granted, the nonprofit "encyclopedia anyone can edit," was not a given at the start.

First, Wikipedia was conceived by Wales as a possible commercial undertaking. Wikipedia was originally hosted at wikipedia.com, and by 2002 Sanger and Wales were hinting that Bomis might start selling ads on Wikipedia, in part to pay Sanger's salary. Wikipedians objected—Spanish Wikipedians even left to create their own. Given these objections and the deflation of the dot-com bubble, Sanger was laid off. Wales changed the site over to a .org domain and began work to establish the nonprofit Wikimedia Foundation, which happened in 2003.

Second, there was the question of whether Wikipedia was a wiki, an encyclopedia, both, or neither. In Wikipedia's first year, Wales visited the wiki of Ward Cunningham to put this question to the inventor of the wiki.<sup>7</sup>

My question, to this esteemed Wiki community, is this: Do you think that a Wiki could successfully generate a useful encyclopedia? —JimboWales

Yes, but in the end it wouldn't be an encyclopedia. It would be a wiki. —WardCunningham

This interaction is a storied part of Wikipedia's history, and in subsequent years Cunningham was often asked about Wikipedia and his prediction. When he was asked if Wikipedia was still a wiki in 2004, he responded, "Absolutely. A certain amount of credit drifts my way from Wikipedia. I'm always quick to remind people that my wiki is not Wikipedia, and that there's a lot of innovation there. I'm proud of what the Wikipedia community has done, I think it's totally awesome." He thought Wikipedia's talk pages, where contributors discuss their work on an article, were especially useful. Cunningham also conceded that Wikipedia was an encyclopedia: "If someone were to ask me to point to a modern encyclopedia, I would choose Wikipedia. Wikipedia defines encyclopedia now."<sup>8</sup> However, Cunningham's concession did not settle the matter. Elsewhere, the debate over Wikipedia's identity continued.

Shortly after being laid off, Sanger resigned from all participation in Nupedia and Wikipedia. He was unemployed, looking for work, and didn't see his contribution as a part-time hobby. However, he remained in Wikipedia's orbit, defending his status as a cofounder and, eventually, becoming one of Wikipedia's most prominent critics and competitors. This began in December 2004 with an essay on "Why Wikipedia Must Jettison Its Anti-Elitism." Sanger objected to Wikipedia's culture of "disrespect toward expertise": while Wikipedia was open to contributions from all,

Wikipedians still ought to defer to experts.<sup>9</sup> This deference to expertise was something he would attempt to restore at Citizendium, his 2006 fork of Wikipedia.

Sanger's essay led to another discussion about Wikipedia's identity, with two media scholars, danah boyd and Clay Shirky, taking opposing positions. (Boyd lowercases her name and pronouns.) Boyd recognized that though Wikipedia was useful, its content was uneven and often embarrassingly poor, leading her to conclude: "It will never be an encyclopedia, but it will contain extensive knowledge that is quite valuable for different purposes." She prefaced this with the sentiment that "this does not mean that i dislike Wikipedia, just that i do not consider it to be equivalent to an encyclopedia. I believe that it lacks the necessary research and precision." Anticipating Citizendium, she suggested this lack of quality could be remedied by "a vetted version of Wikipedia, one that would provide a knowledge resource that is more accountable and authoritative."<sup>10</sup>

Alternatively, Clay Shirky recognized that although Wikipedia's content was sometimes inferior to traditional encyclopedias, it was sometimes superior, especially on contemporary topics on which *Britannica* was silent. He also believed that it was myopic not to recognize Wikipedia as an encyclopedia.

The idea that the Wikipedia will never be an encyclopedia is in part an ahistorical assertion that the definition and nature of encyclopediahood is fixed for all time, and that works like *Britannica* are avatars of the pattern. Contra boyd, I think Wikipedia will be an encyclopedia when the definition of the word expands to include peer production of shared knowledge, not just *Britannica's* institutional production.<sup>11</sup>

I was partial to Shirky's argument then and remain so. Yet boyd maintains her position though her concern has shifted. Boyd believes *Britannica* had its shortcomings and biases, and Wikipedia has improved; yet the latter is special given "how Wikipedia ends up serving as a form of data infrastructure." Wikipedia is relied on as "an information backbone that shapes the core network structure of search engines." This means it has an outsized effect on the world and is then "made vulnerable by those who seek to control algorithmic systems."<sup>12</sup> For boyd, to label and understand Wikipedia merely as an encyclopedia ignores its importance.

Clearly, questions of identity are not as easy to resolve as those about growth. As David Nye wrote about the "Promethean problem" of technology

prediction, a technology's symbolic meaning is as important as any technical utility in shaping its often unforeseen uses.<sup>13</sup>

### Production Model (2005–2010)

Wikipedia's supplanting of Nupedia demonstrated the benefits of open and easy peer production. In 2005, law professor Eric Goldman predicted that this same model meant that "Wikipedia will fail within 5 years."<sup>14</sup>

Communities, especially online ones, struggle with scale. As a community grows, personal interactions are no longer sufficient for making decisions. This is the endogenous challenge of scale. The exogenous challenge is that a larger community is also a larger target. For example, at the beginning of 2005, white nationalists were marshaling off-site to save their pet article "Jewish Ethnocentrism" from deletion. Wikipedians weren't sure how to quickly and effectively respond to this threat.

In response, Jimmy Wales said he could, reluctantly, play the part of benign dictator. Wales responded, "If 300 NeoNazis show up and start doing serious damage to a bunch of articles, we don't need to have 300 separate ArbCom cases and a nightmare that drags on for weeks. I'll just do something to lock those articles down somehow, ban a bunch of people, and protect our reputation and integrity." And as the crisis is dealt with, "we can also work in parallel to think about the best way to really take care of such problems in the long run."<sup>15</sup>

Throughout 2005, Wikipedians struggled with such problems, prominently reported as "growing pains." This was the year that John Seigenthaler Sr. condemned the project for falsely implicating him in John F. Kennedy's assassination. This was also the year that Goldman not only predicted Wikipedia's death but made a bet of it with fellow law blogger, Mike Godwin, over dinner.

I remarked to Mike that Wikipedia inevitably will be overtaken by the gamers and the marketers to the point where it will lose all credibility. There are so many examples of community-driven communication tools that ultimately were taken over—USENET and the Open Directory Project are two that come top-of mind—that I didn't imagine that my statement would be controversial or debatable. Instead, I was surprised when Mike disagreed with my assertion. Mike's view is that Wikipedia has shown remarkable resilience to attacks to date, and this is evidence that the system is more stable than I think it is.<sup>16</sup>

Mike Godwin is best known for his eponymous “law” that “as an online discussion grows longer, the probability of a comparison involving Nazis or Hitler approaches 1.” If this maxim reflected some cynicism, his bet against Goldman—and his joining Wikimedia as general counsel in 2007—reflected some optimism. Godwin believed Wikipedia could manage its growing pains. For example, in 2005, Wikipedia experimented with semi-protection, which limited edits to regularly vandalized pages to accounts older than four days. This was one of the “long run” solutions Wales alluded to at the start of the year. As Godwin wrote, “I think part of the design of Wikipedia was to allow for the evolution of contributor standards, even though as a ‘foundational’ principle anonymous contributors will always be allowed to edit it. Such evolution ought to be enough to keep Wikipedia alive and vital in the face of a changing digital environment.”<sup>17</sup>

In 2006, Goldman affirmed his belief in Wikipedia’s predicted demise. Its success made it a target, and defending the project would lead to Wikipediaian burnout. Those who remained would be overloaded, and “thus, Wikipedia will enter a death spiral where the rate of junkiness will increase rapidly until the site becomes a wasteland.”<sup>18</sup> Media critic Nicholas Carr had less patience, announcing the death of Wikipedia that very year. Unlike Goldman, Carr did not have a plausible theory; he simply wanted to bury the myth of openness as Wikipedia ceded to the “corrosive process of compromise.” Others rightly called Carr on his histrionics, with Shirky responding that “news of Wikipedia’s death is greatly exaggerated.”<sup>19</sup>

By 2009, Goldman had agreed with Shirky and conceded his bet with Godwin. Though Wikipedia had introduced some barriers to vandalism and bad-faith edits, “in total Wikipedia’s current technological restrictions are fairly modest.”<sup>20</sup> In 2010, Goldman wrote, “My 2005 prediction of Wikipedia’s failure by 2010 was wrong.” Competitor projects might arise, but they too would have to follow Wikipedia’s model of balancing openness with limited protections. (And competitors tend to presage Wikipedia’s death in the headlines: “Google Knol—Yup, it’s a Wikipedia Killer,” “Wolfram Alpha: Wikipedia Killer?,” and “Is Owl AOL’s Wikipedia-Killer?”<sup>21</sup>) Goldman remained an active user and was pleased to wish the site a happy tenth anniversary. Wikipedia’s model of peer production remained its lifeblood, rather than a source of sickness or external threat.

As Wikipedia approaches its twentieth anniversary, Goldman has confirmed his assessment of Wikipedia’s success, though he remains concerned

about the quality of lesser-visited articles and the lack of new contributor growth (discussed in the next section). Additionally, he noted that two things he did not anticipate were the effectiveness of nofollow web links—such links are ignored by search engines, making them less attractive to spammers—and the growth of Wikimedia’s staff: “I don’t know what Wikipedia would look like without the active support of 100+ full-time staff.”<sup>22</sup>

In any case, Goldman’s prediction shows what *not* to do as a successful tech prognosticator. Like those of a neighborhood fortune teller, predictions ought to be nonspecific in content and time. Goldman predicted Wikipedia’s death (rather than subtle changes in openness) in a five-year horizon (rather than “soon”) and specified the process of its demise (a death spiral). Although this weakens the likelihood of a prediction, it clarifies rather than obfuscates the concerns discussed. Kudos.

### Contributor Attrition (2009–2017)

I underestimated Wikipedia in its first few years, as did everyone. However, in subsequent years, I was confident Wikipedia would continue as a wiki and as an encyclopedia, despite the dismal prognostications by some.

However, in 2009, it became clear that the English Wikipedia was facing possible senescence. That year, researchers found evidence that Wikipedia’s new article growth had slowed or plateaued. Additionally, new contributions were being increasingly deleted and reverted, and the balance of activity was favoring experienced editors over newcomers. Over the next five years, researchers, Wikipedians, and the Wikimedia Foundation documented similar changes and attempted remedies. Headlines reported on an “aging” Wikipedia that was on the “decline” and “slowly dying.”<sup>23</sup>

Though one prominent Wikipedian invoked Twain’s “exaggerated death” quip again in Wikipedia’s defense, the trend was undeniable and the concern was widespread. Attempts to retain contributors, to make the site easier to use, and to recruit newcomers were belied by a 2014 story. *The Economist* reported that the past seven years had seen the number of active editors with five or more edits in a given month fall by a third.<sup>24</sup> Wikipedia’s statistics page shows that the active editors fell from a peak of fifty-three thousand in 2007 to around thirty thousand in 2014. Without the efforts to shore up Wikipedia, these numbers could have been even worse, but things weren’t getting better.



Through 2017, the prognostications remained dismal as people spoke of Wikipedia's "extinction event" and wrote that "Wikipedia Editors Are a Dying Breed." A 2015 *New York Times* opinion piece asked, "Can Wikipedia Survive?"<sup>25</sup> The fear in many of these pieces was that Wikipedia's problems were being compounded by peoples' move to smartphones, where editing Wikipedia is not easy.

Nonetheless, it appears that the number of active editors has been stable since 2014, never dropping below twenty-nine thousand, and that this pattern of fast growth and plateau is not unusual for wikis.<sup>26</sup> Therefore, the English Wikipedia's growth to maturity might be likened to that of the quaking aspen (*populus tremuloides*). The tree grows aggressively toward maturity, sending out roots from which new trees grow. Even if the English Wikipedia has slowed, the larger Wikimedia grove continues to grow.

## Conclusion (2020–)

At this point, it's foolish for anyone to predict Wikipedia's death. While such a prognostication makes for catchy headlines—which will probably continue—Wikipedia persists. It has survived modest expectations, an identity crisis, spammers, and contributor attrition. Wikipedia is undoubtedly an encyclopedia; it's the go-to reference of the twenty-first century. Although getting a handle on Wikipedia's hundreds of templates and policies is daunting, some continue to make the effort.

It isn't wrong, of course, to be concerned about Wikipedia. It's an important website that has become even more so in its last decade. Wikipedia is among only a handful of significant noncommercial websites. It's doing a decent job at resisting large-scale misinformation and manipulation. And its data is increasingly relied on by other web services.

It isn't wrong to think about the future, but there's a difference between the future and hype. I appreciate Goldman's five-year prediction. Unlike clickbait, his prediction was based on a plausible theory with specific implications. This kind of prediction can sharpen our discussions rather than muddle them.

The only prediction that I'd hazard for the next ten years is that Wikipedia will still exist. The platform and community have momentum which no alternative will supplant. And by then, the Wikimedia Endowment, started in 2016, should have raised its goal of a \$100 million toward maintaining its

projects “in perpetuity.” The English Wikipedia community will no doubt face challenges and crises as it always has, but I don’t foresee anything so profound that only a husk of unchanging articles remains.

I predict Wikipedia will live.

**Acknowledgments:** I was able to improve this essay with the help of LiAnna L. Davis, Jackie Koerner, Jake Orlovitz, Ian Ramjohn, and Denny Vrandečić. Thank you.

### Notes

1. Joseph Reagle, *Good Faith Collaboration: The Culture of Wikipedia* (Cambridge, MA: MIT Press, 2010), <https://reagle.org/joseph/2010/gfc/>.
2. Joseph Reagle, “Wikipedia: The Happy Accident,” *Interactions* 16, no. 3 (2009): 42–45, <http://doi.acm.org/10.1145/1516016.1516026>.
3. Stacy Schiff, “Know It All: Can Wikipedia Conquer Expertise?” *The New Yorker*, July 31, 2006, 3, [http://www.newyorker.com/archive/2006/07/31/060731fa\\_fact](http://www.newyorker.com/archive/2006/07/31/060731fa_fact); Larry Sanger, “Let’s Make a Wiki,” nupedia-1, January 10, 2001, <http://web.archive.org/web/20030822044803/http://www.nupedia.com/pipermail/nupedia-1/2001-January/000676.html>.
4. Joseph Reagle, “Wikipedia 10K Redux,” *Open Codex* (blog), December 16, 2010, <https://reagle.org/joseph/blog/social/wikipedia/10k-redux.html>.
5. Peter Jasco, email message to author, February 22, 2019.
6. Herb Brody, “Great Expectations: Why Technology Predictions Go Awry,” in *Technology and the Future*, ed. Albert H. Teich, 7th ed. (New York: St. Martin’s Press, 1997), 113.
7. Ward Cunningham, Jimmy Wales, and Larry Sanger, “Wiki Pedia,” C2, January 2001, <http://wiki.c2.com/?WikiPedia>.
8. Ward Cunningham, “Interview/Ward Cunningham,” *Wikimedia Quarto* 1 (2004), [http://wikimediafoundation.org/wiki/Interview/Ward\\_Cunningham](http://wikimediafoundation.org/wiki/Interview/Ward_Cunningham).
9. Larry Sanger, “Why Wikipedia Must Jettison Its Anti-Elitism,” KuroShin, December 31, 2004, <http://www.kuroshin.org/story/2004/12/30/142458/25>.
10. Danah boyd, “Academia and Wikipedia,” *Many-to-Many* (blog), January 4, 2005, [https://web.archive.org/web/20060316184224/http://many.corante.com/archives/2005/01/04/academia\\_and\\_wikipedia.php](https://web.archive.org/web/20060316184224/http://many.corante.com/archives/2005/01/04/academia_and_wikipedia.php).
11. Clay Shirky, “Wikipedia: Me on Boyd on Sanger on Wales,” *Many-to-Many* (blog), January 5, 2005, [https://web.archive.org/web/20050107003720/www.corante.com/many/archives/2005/01/05/wikipedia\\_me\\_on\\_boyd\\_on\\_sanger\\_on\\_wales.php](https://web.archive.org/web/20050107003720/www.corante.com/many/archives/2005/01/05/wikipedia_me_on_boyd_on_sanger_on_wales.php).

12. Danah boyd, email message to author, February 21, 2019.
13. David Nye, "Technological Prediction: A Promethean Problem," in *Technological Visions: The Hopes and Fears That Shape New Technologies*, ed. Marita Sturken, Douglas Thomas, and Sandra Ball (Philadelphia: Temple University Press, 2004), 171.
14. Eric Goldman, "Wikipedia Will Fail Within 5 Years," *Technology & Marketing Law Blog* (blog), December 5, 2005, [http://blog.ericgoldman.org/archives/2005/12/wikipedia\\_will.htm](http://blog.ericgoldman.org/archives/2005/12/wikipedia_will.htm).
15. Jimmy Wales, "Re: Neo-Nazis to Attack Wikipedia," wikien-l, February 7, 2005, <http://marc.info/?i=20050207162911.GO29080@wikia.com>.
16. Goldman, "Wikipedia Will Fail Within 5 Years."
17. Mike Godwin, "Will Wikipedia Fail in Five Years?" *Godwin's Law Blog* (blog), December 6, 2005, <https://web.archive.org/web/20060206175448/www.godwinslaw.org/weblog/archive/2005/12/06/will-wikipedia-fail-in-five-years>.
18. Eric Goldman, "Wikipedia Will Fail in Four Years," *Technology & Marketing Law Blog* (blog), December 5, 2006, [http://blog.ericgoldman.org/archives/2006/12/wikipedia\\_will\\_1.htm](http://blog.ericgoldman.org/archives/2006/12/wikipedia_will_1.htm).
19. Ross Mayfield, "Nick Carr Is the New Dave Winer," *Ross Mayfield's Weblog* (blog), May 25, 2006, [http://ross.typepad.com/blog/2006/05/nick\\_carr\\_is\\_th.html](http://ross.typepad.com/blog/2006/05/nick_carr_is_th.html); Clay Shirky, "News of Wikipedia's Death Greatly Exaggerated," *Many-to-Many* (blog), May 25, 2006, [http://many.corante.com/archives/2006/05/25/news\\_of\\_wikipedias\\_death\\_greatly\\_exaggerated.php](http://many.corante.com/archives/2006/05/25/news_of_wikipedias_death_greatly_exaggerated.php).
20. Eric Goldman, "Wikipedia's Labor Squeeze and Its Consequences," *Journal of Telecommunications and High Technology* 8, 2009, 6, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1458162](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1458162).
21. Christopher Dawson, "Google Knol—Yup, It's a Wikipedia Killer," ZDNet, July 28, 2008, <https://www.zdnet.com/article/google-knol-yup-its-a-wikipedia-killer/>; Christopher Dawson, "Wolfram Alpha: Wikipedia Killer?" ZDNet, May 17, 2009, <https://www.zdnet.com/article/wolfram-alpha-wikipedia-killer/>; TechCrunch, "Is Owl AOL's Wikipedia-Killer?" *Mediapost*, January 18, 2010, <https://www.mediapost.com/publications/article/120803/is-owl-aols-wikipedia-killer.html>.
22. Eric Goldman, email message to author, April 29, 2019.
23. Julia Angwin and Geoffrey A. Fowler, "Volunteers Log Off as Wikipedia Ages," *The Wall Street Journal*, November 27, 2009, <https://www.wsj.com/articles/SB125893981183759969>; Adrian Chen, "Wikipedia Is Slowly Dying," *Gawker* (blog), August 4, 2011, <https://gawker.com/5827835/wikipedia-is-slowly-dying>; Tom Simonite, "The Decline of Wikipedia," *MIT Technology Review*, October 22, 2013, <https://www.technologyreview.com/s/520446/the-decline-of-wikipedia/>.
24. Kaldari, "Reports of Wikipedia's Demise Greatly Exaggerated," *WikiVoices* (blog), August 19, 2009, <http://web.archive.org/web/20120127062644/wikivoices.blogspot>

.com/2009/08/reports-of-wikipedias-demise-are.html; "The Future of Wikipedia: Wiki-Peaks?" *The Economist*, March 4, 2014, <https://www.economist.com/international/2014/03/04/wikipeaks>.

25. Andrew Lih, "Can Wikipedia Survive?" *The New York Times*, June 20, 2015, <https://www.nytimes.com/2015/06/21/opinion/can-wikipedia-survive.html>.

26. "Wikipedia Statistics English," Wikimedia, January 31, 2019, <https://stats.wikimedia.org/EN/TablesWikipediaEN.htm>; Nathan TeBlunthuis, Aaron Shaw, and Benjamin Mako Hill, "Revisiting 'the Rise and Decline' in a Population of Peer Production Projects," in *CHI '18: Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, ed. R. Mandryk and M. Hancock (New York: Association for Computing Machinery, 2018), <http://dx.doi.org/10.1145/3173574.3173929>.