Wikipedia

@ 20

Stories of an Incomplete Revolution edited by Joseph Reagle and Jackie Koerner



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Preface

This book was not an easy undertaking and is unusual in a number of ways.

Even though this is a collection of essays from an academic press, our contributors are not exclusively academics. Many of the essayists make use of Wikipedia as part of their work: scholars, teachers, librarians, journalists, and activists. Many are more than one of these things. Many of the essayists are also multilingual, and not all are writing in their native language. This variety is a strength, speaking to the connections among languages, professions, and enthusiasms across the movement.

Also, we hope to reach a general audience. Our intention is to speak to the nonspecialist reader interested in Wikipedia. Perhaps our readers are fond of using Wikipedia, or perhaps they follow stories about it with interest. Perhaps they even contribute to Wikipedia, a little or a lot. Or, perhaps, Wikipedia is part of their work. This isn't an introduction to Wikipedia; rather, it is a set of reflections from those who have given a lot of thought to the online encyclopedia as its twentieth year approaches.

The process for this book was also unusual. With the approach of Wikipedia's anniversary, we aspired to move quickly and create an accessible and coherent work. Gita Devi Manaktala, MIT Press's editorial director, suggested we make use of PubPub, a new online collaborative publishing platform. Each essay began as a proposed abstract; those selected were given editorial feedback. Later, full drafts were posted on PubPub and open to peer, public, and editorial review. Finally, revised essays underwent external review before selections were made for the printed book.

Completing such a work requires the generosity and patience of many—especially when there's a change of editorship midstream.

Skill and patience could not be better exemplified than by Gita Devi Manaktala, Maria Isela Garcia, and Jessica Lipton at MIT Press. Their editorial x Preface

and logistical savvy was paramount to this project's completion. Other consummate professionals who contributed to the polish, production, and presentation of this work include Elizabeth Granda, Marcy Ross, Kate Elwell, Gregory Hyman, Matthew White, Ori Kometani, and Susan Clark.

This book is the result of a collective effort. Unfortunately, we could not include all of the pieces here, and the website remains a broader and useful hypertextual collection from all those who participated. John Broughton, Stephane Coillet-Matillon, Jake Orlowitz, and Denny Vrandečić were especially generous with their feedback on PubPub. The editors benefited from the guidance and expertise of Phoebe Ayers, Siko Bouterse, Anasuya Sengupta, and Adele Vrana. Samantha Lien and Nadee Gunasena from the Wikimedia Foundation helped to facilitate the capstone piece. And the external reviewers for MIT Press went above and beyond by providing helpful feedback on a large manuscript in a short period of time. Thank you to all.

Like any technology, a publishing platform can prompt moments of confusion. PubPub's Catherine Ahearn, Gabe Stein, and Travis Rich were quick to respond to the many questions we sent their way.

The open access edition of this book was made possible with generous funding from Knowledge Unlatched, the Northeastern University Communication Studies Department, and a Wikimedia Foundation rapid grant.

We hope you will enjoy this unusual collection. It was produced in the wiki-spirit of open collaboration, contains varied voices, and speaks to insights from hindsight and visions for the future. What might you learn in reading these pages? Though Wikipedia was revolutionary twenty years ago, it has yet to become the revolution we need. The important work of sharing knowledge, connecting people, and bridging cultures continues.

Introduction: Connections

Joseph Reagle and Jackie Koerner

Twenty years ago, Wikipedia set out on its path to provide humanity with free access to the sum of all knowledge. Even if this is a mission that can't be finished, Wikipedia has made remarkable progress toward the impossible. How so? Wikipedia is an encyclopedia built on a wiki. And never has an application (gathering the sum of human knowledge) been so suited to its medium (easily interconnected web pages).

Encyclopedias have long been reliant on interconnections. In 1755, the *Encyclopédie's* Denis Diderot wrote that the use of cross-references (or *renvois*) was "the most important part of our encyclopedia scheme." This feature allowed the *Encyclopédie's* editors to depict the connective tissue of Enlightenment knowledge and to dodge state and church authorities by way of facetious and satirical references. For example, they linked to articles on the Christian rite of communion, wherein "the body and blood of Christ" is consumed, from the article on "Cannibals."

At the onset of each new informational medium—from paper, to microfilm, to silicon—connectivity was the impetus. Among the documentalists of the early twentieth century, there was Wilhelm Ostwald's *Brücke*, a bridge, and Suzanne Briet's *indice*, an indicator. Such documentalists advanced indexing and classification schemes to improve interconnections between information. Then, on the cusp of the digital age, Vannevar Bush famously wrote of the power of an electromechanical memex laced with "associative trails." This inspired the hyperlinks of the 1960s and the URLs of the 1990s.

Creating HTML web pages interspersed with links, however, is not so easy; the first wiki was launched in 1995 to fix this. To create and link to a new page, you simply wrote the page's title in CamelCase, so-called

because capitalizing "camel" and "case," when conjoined, has two humps. Your lumpy title is now a link that, when clicked, takes you to a fresh page awaiting new content.

Wikipedia, then, appeared in 2001, almost by way of accident.³ Efforts at collaboratively creating an online encyclopedia had faltered for years. When a wiki was added to one such project, as an experimental scratchpad, it took off beyond anyone's expectation: Wikipedia was born.

Just as the history of two centuries, from print to digital, reveals the importance of connection—call it a reference, bridge, indicator, trail, or link—Wikipedia's two decades are also a story of connection. The following essays speak of and exemplify those connections across disciplines and borders, across languages and data, and across the professional and personal.

What Has Changed

This is a collection of essays about Wikipedia as the English-language edition and larger movement approach their twentieth year. Many of the contributors are astonished by this milestone because we've been so close to Wikipedia and remember when it was young. So we pause to look back on those two decades, to see what has changed, and to connect the past with the present, looking toward the future.

In Wikipedia's early days, those of us concerned with history argued Wikipedia was the fulfillment of a long-pursued vision of a universal encyclopedia: the rousing end of a long story. But, of course, the story didn't end; a good story never ends.

Other contributors have sought to explain how Wikipedia worked in practice given that it was not easily explained by theory. New theories, including commons-based peer production, prompted hope that Wikipedia's success would be followed by similar examples. Yet there have been disappointments on the road to an imagined utopia and back.

Those of us following the public discourse about Wikipedia remember it as the new kid on the block, upsetting traditional knowledge authorities. We can recall a former president of the American Library Association calling Wikipedia the dietary equivalent of a Big Mac.⁴ Now, Wikipedia is reported on in the press as the grown-up of the web and as a bastion of (mostly) reasoned interaction.

Many of the educators among us first encountered Wikipedia when we were students. Even if our teachers were suspicious of the new site, we were thrilled to collaborate with others on something people would actually read. Now, as Alexandria Lockett notes in her essay, our students have never lived in a world without Wikipedia. Helping students contribute to Wikipedia is one of the most rewarding assignments we offer. And rather than dismissing Wikipedia as junk food, some librarians see rigorous engagement with Wikipedia as a staple of their profession.

Finally, those of us who recognized the limitations of Wikipedia in its first decade hoped that the obstacles of complicated syntax, entrenched biases, and complex policies were tractable. A lot of effort has been spent on these concerns, and progress has been made. Though it took time to develop and deploy, the VisualEditor is now the predominant default on most Wikipedia editions. And there are now vigorous projects working to increase representation and participation. Even so, these problems are far from solved.

Insight from Hindsight, in Three Parts

The intention behind this collection was to pause and ask: what have we learned?

Often, technology is seen as a stepping stone to the future. Near its start, Wikipedia was labeled as an extraordinary revolution and a degenerate hive mind. Yet people are so caught up in tech's present novelty and future implications they rarely look back to consider what actually happened. Wikipedia's twentieth anniversary is a moment to do so. It's not often we have such a hyped and controversial tech phenomenon still doing what it was doing from its start—most become advertising platforms, like Facebook and Google.

Consequently, in late 2018, this book project was launched with a request for essay proposals related to "Wikipedia @ 20." Prospective contributors were asked what insights they had gained from these two decades of history. The saying that "hindsight is twenty-twenty" is sometimes used dismissively; we wanted to use it constructively. Contributors were asked to tell us about lessons learned, insights gained, and myths busted during their engagement with Wikipedia.

The resulting chapters are grouped into three sections: hindsight, connection, and vision. This is an arbitrary division as each essay has elements of each—but some organization never hurt.

The first set of chapters are retrospective; they are mini-histories on how Wikipedia has been produced and discussed relative to internal and external tensions—such as the encyclopedia's conflict of interest policy. And the insight from these hindsights is that events flow in ways contrary and unexpected. Wikipedia has far exceeded its creators' expectations and outlived the many predictions of its death. Similarly, as the authors of "From Anarchy to Wikiality, Glaring Bias to Good Cop" write, Wikipedia's press coverage "has evolved from bewilderment at the project, to concern and hostility at its model, to acceptance of its merits and disappointment at its shortcomings, and finally to calls to hold it socially accountable and reform it like any other institution." The peer-based production that the encyclopedia heralded had much utopian potential, but time has revealed unforeseen limitations. And among the many things Wikipedia is not, it is not a newspaper, but its content and readership is driven by the news.

The second set of chapters demonstrate the richness of connections. Not only is the link essential in the story of encyclopedias and the web, it is a motif in many of the essays. Wikipedia spans national, cultural, and linguistic divides as well as those between people, data, and machines. Wikipedia has even become "the most important laboratory for social scientific and computing research in history," as one pair of contributors show. And the connections between Wikipedia and the many platforms that use its data are not as close as they should be, severing the context and verifiability of knowledge.

In "Three Links," the authors write that "working with the encyclopedia and its community has been a valuable forging ground, shaping each of us into links in a wide-reaching mesh of personal and professional connections." Wikipedia connects volunteers, teachers, librarians, scholars, and activists. Many of our contributors bridge these communities by serving in multiple roles—not always easy. There's also evidence of Wikipedia's place in our personal lives, of long-lasting collaborations and friendships.

The final set of chapters speak to Wikipedia's founding vision, best expressed in the famous provocation to "imagine a world in which every single person on the planet is given free access to the sum of all human knowledge." This Enlightenment-inspired promise has yet to be fulfilled.

Obviously, not everyone who'd like to read Wikipedia can do so, and we include the story of some of those making it available to people without internet and those within censorious regimes. However, "free access" is more than *read only*; it also includes contribution. As coeditor Jackie Koerner writes, Wikipedia's relationship with knowledge equity is complex: the summation of human knowledge is biased by those documenting it. We include essays from those working to remedy this shortfall, from the Art+Feminism and Black Lunch Table projects, from an educator at a historically Black Women's college, and from those at Wiki Education. A path forward, "Toward a Wikipedia For and From Us All," is illuminated by the contributors from *Whose Knowledge?*

We conclude with a capstone from Katherine Maher, executive director of the Wikimedia Foundation. As we finished work on this volume, the Wikimedia movement had finished a process for envisioning the Wikipedia of 2030. Wikipedia will continue its development from a wiki website toward an accessible platform for knowledge. And the community will redouble its efforts to include people and bodies of knowledge previously overlooked. Maher eloquently articulates what is required to continue the journey toward a world that no longer need only be imagined.

Notes

- 1. Denis Diderot, "The Encyclopedia," in *University of Chicago Readings in Western Civilization, Vol. 7: The Old Regime and the French Revolution*, John W. Boyer, Keith M. Baker, Julius Kirshner (Chicago: University of Chicago Press, 1987), 82.
- 2. Michael Zimmer, "Renvois of the Past, Present and Future: Hyperlinks and the Structuring of Knowledge from the Encyclopédie to Web 2.0," *New Media & Society* 11, no. 95 (2009), http://nms.sagepub.com/cgi/content/abstract/11/1-2/95.
- 3. Joseph Reagle, "Wikipedia: The Happy Accident," *Interactions* 16, no. 3 (2009): 42–45, http://doi.acm.org/10.1145/1516016.1516026.
- Michael Gorman, "Jabberwiki: The Educational Response, Part II," Encyclopædia Britannica Blog, June 26, 2007, http://blogs.britannica.com/2007/06/jabberwiki-the -educational-response-part-ii/.
- Jimmy Wales, "Wikipedia Founder Jimmy Wales Responds," Slashdot, July 28, 2004, https://slashdot.org/story/04/07/28/1351230/wikipedia-founder-jimmy-wales -responds.

I Hindsight

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

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controversies: *Good Faith Collaboration*.¹ 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.² 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." 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. 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*." ⁵

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*. 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. 12 Joseph Reagle

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.⁷

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." 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. 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."

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.¹¹

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." 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

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

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." ¹⁴

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." ¹⁵

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.¹⁶

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."

In 2006, Goldman affirmed his belief in Wikipedia's predicted demise. Its success made it a target, and defending the project would lead to Wikipedian 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." 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."

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." 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?" 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

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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."²²

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." 23

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. 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.

- 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.
- 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.
- 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; 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.
- 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.
- 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

20 Joseph Reagle

.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.

2 From Anarchy to Wikiality, Glaring Bias to Good Cop: Press Coverage of Wikipedia's First Two Decades

Omer Benjakob and Stephen Harrison

Media coverage of Wikipedia has radically shifted over the past two decades: once cast as an intellectual frivolity, it is now lauded as the "last bastion of shared reality" online. To increase diversity and digital literacy, journalists and the Wikipedia community should work together to advance a new "wiki journalism."

"Jimmy Wales has been shot dead, according to Wikipedia, the online, up-to-the-minute encyclopedia." That was the opening line of a blatantly false 2005 news report by the online magazine the *Register*. Rather than being an early example of what we may today call "fake news," the report by the tech site was a consciously snarky yet prescient criticism of Wikipedia and its reliability as a source for media. Wales was still alive, of course, despite what it had briefly stated on his Wikipedia entry, but by attributing his death to English Wikipedia, the *Register* sought to call out a perceived flaw in Wikipedia: on Wikipedia, truth was fluid, and facts were exposed to anonymous vandals who could take advantage of its anyone-can-edit model to spread disinformation.

Over the past twenty years, English Wikipedia has frequently been the subject of media coverage, from in-depth exposés to colorful features and critical op-eds. But if you randomly sample the words used to describe Wikipedia from the headlines in this period, you might conclude that the press has no idea what it thinks about the free internet encyclopedia. Should we refer to it as "the hive" as the *Atlantic* did in 2006 or rather as the "good cop of the internet" as the *Washington Post* did in 2018? Is Wikipedia "impolite" as the *New York Times* claimed in 2008 or rather a "ray of light" as the *Guardian* suggested in 2018? Is there a logical progression to how the press has described Wikipedia over the past two decades, or does seemingly every reporter possess a dramatically different opinion?

Both of us are journalists who have regularly covered Wikipedia in recent years, and before that we were frequent consumers of knowledge on the site (like many of our journalist colleagues). Press coverage of Wikipedia during the past twenty years has undergone a dramatic shift, and we believe it's important to highlight how the media's understanding of Wikipedia has shifted along with the public's understanding. Initially cast as the symbol of intellectual frivolity in the digital age, Wikipedia is now being lauded as the "last bastion of shared reality" in Trump's America. Coverage, we claim, has evolved from bewilderment at the project to concern and hostility at its model, to acceptance of its merits and disappointment at its shortcomings, and finally to calls to hold it socially accountable and reform it like any other institution.

We argue that press coverage of Wikipedia can be roughly divided into four periods. We have named each period after a major theme: "Authorial Anarchy" (2001–2004/2005); "Wikiality" (2005–2008); "Bias" (2011–2017); and "Good Cop" (2018–present). We note upfront that these categories are not rigid and that themes and trends from one period can and often do carry over into others. But the overall progression reveals how the dynamic relationship between Wikipedia and the press has changed since its inception and might provide further insight into how the press and Wikipedia will continue to interact with each other in the internet's knowledge ecosystem.

In short, we argue for what we term "wiki journalism" and the need for media to play a larger role in improving the general public's "Wikipedia literacy." With the help of the Wikimedia Foundation and the Wikipedia community, we claim that the press can play a more substantial role in explaining Wikipedia to the public and in serving as a civilian watchdog for the online encyclopedia. Encouraging critical readership of Wikipedia and helping to increase diversity among its editorship will ensure greater public oversight over the digital age's preeminent source of knowledge.

Authorial Anarchy (2001–2004/2005)

When Wikipedia was launched in 2001, mainstream media as well as more technology minded outlets treated it as something between a fluke and quirky outlier. With quotes from cofounders Jimmy Wales and Larry Sanger, early coverage tended to focus on what seemed like Wikipedia's most novel

mounted what seemed at the time to be the bigger threat toward *Britan-nica*. Within a year, however, the newspaper's take on Wikipedia changed dramatically, and it was now concerned by the long-term effect of Wikipedia's success, suggesting "the Internet's free dissemination of knowledge will eventually decrease the economic value of information." ¹⁰

At the end of 2005, this tension between the English encyclopedia of the Enlightenment and that of the digital age would reach its zenith in a now infamous *Nature* news study that compared Wikipedia and *Britannica* (also discussed in chapter 13). Published in December 2005, *Nature*'s "Internet Encyclopaedias Go Head to Head" found Wikipedia to be as accurate as its Enlightenment-era competitor based on experts' comparisons of randomly selected science articles. News that Wikipedia successfully passed scientific scrutiny—that its ever-changing content was deemed to be as reliable as the static entries of a vaunted print-era encyclopedia like *Britannica*—made headlines around the world. The *Nature* study was the final stage in a process that peaked in 2005 and cemented Wikipedia's shift from a web novelty whose value was to be treated skeptically at best to a cultural force to be reckoned with.

In March 2005, Wikipedia had crossed the half million article mark, and some intellectuals began to discuss the "the wikification of knowledge." Wales, increasingly an internet celebrity, took his pitch about "a ragtag band of volunteers" revolutionizing encyclopedias to TED. In the widely popular talk, titled "The Birth of Wikipedia," Wales failed to reference Sanger, who had left the project in 2002. In the early days Sanger was a leading voice that spoke to the internet community from which Wikipedia's first volunteers were enlisted, penning guest blog posts as part of early outreach efforts. However, as the 2005 TED speech symbolized, Wikipedia was now mainstream and no longer aiming at early internet adopters but rather the general public—and Wales had taken on the role of public face of the project.

Tellingly, 2005 was also the year that the Wikipedia community first began recording its coverage in the media in an organized fashion. Initially focused on instances of "Wiki love" from the press, in 2005 the community created categories like "America's Top Newspapers Use Wikipedia" for its early press clippings. The *Signpost*, the online newspaper for English Wikipedia, was also founded in 2005 to report on events related to Wikipedia. Over time the community grew increasingly conscious of its public

on Wikipedia, causing its server to crash. The wider point resonated.²⁶ "It's on Wikipedia, so it must be true," the *Washington Post* wrote that year.²⁷ Wikipedia was no longer taken to be just another website; it was now a powerhouse undermining intellectual institutions and capable of changing our very perception of reality.

Colbert followed up his infamous segment with another potent neologism: wikiality. "Wikiality," he charged, was the reality created by Wikipedia's model, in which "truth" was based on the will of the majority and not on facts. This was a theme that had a deep political resonance in post-9/11 America, buoyed by the presidency of George W. Bush and the rise to prominence of Fox News—and Wikipedia was increasingly cast as providing its underlying intellectual conditions. This framing peaked in 2005 and 2006 but was omnipresent when Wikipedia launched in 2001, when for example "populist editing" was selected as one of the year's "big ideas." The culture of truthiness and the wikiality it created were taken to be the real-world manifestations of the Wikipedia philosophy—and the fallout was taking on an increasingly political undertone. "Who is Britannica to tell me that George Washington had slaves? If I want to say he didn't, that's my right," Colbert charged. "Thanks to Wikipedia, it's also a fact. [We're] bringing democracy to knowledge." 29

During 2006–2009, the dominance of Wikipedia's encyclopedic model was solidified. In 2008, the *New York Times* published a "eulogy" for print encyclopedias and flagged the need to understand the "epistemology of Wikipedia" and the "wikitruth" it bred. Wikipedia's underlying philosophy—its model's effects on the very nature of facticity—was now deserving of more serious and critical examination. *MIT Technology Review* ran a piece on "Wikipedia and the Meaning of Truth," asking "why the online encyclopedia's epistemology should worry those who care about traditional notions of accuracy." The manner Wikipedia constructed knowledge and offered an alternative justification to that of expert-based print encyclopedias was taking central stage.

Concerns that Wikipedia's epistemological model was replacing expertise loomed large. In 2006, the *New York Times* debated the merits of "the nit-picking of the masses vs. the authority of the experts," and the *Independent* asked: "Do we need a more reliable online encyclopedia than Wikipedia?" In a report that profiled Wikipedians, the *New Yorker* wondered: "Can Wikipedia conquer expertise?"; and Larry Sanger, who had left the project by

then, lamented "the fate of expertise after Wikipedia." Though largely negative, these in-depth reports also permitted a more detailed treatment of Wikipedia's theory of knowledge. Articles like Marshal Poe's "The Hive," published in the *Atlantic*'s September 2006 edition, laid out for intellectual readers Wikipedia's history and philosophy like never before.

Epistemic and social fears of Wikipedia were also fueled by Wikipedia's biggest public media storm to date—the so-called Essjay scandal of 2007, in which a prolific Wikipedia editor profiled by the *New Yorker* was revealed to be a fraud. The user Essjay claimed to be a professor of theology but turned out to be a twenty-four-year-old college dropout, Ryan Jordan. Jordan's outing prompted a rare correction from the magazine and made headlines.³⁴ It even spurred calls to reform Wikipedia.³⁵ The fact that Jordan held an official status within Wikipedia's community seemed to echo an increasingly accepted political truism: facts were being manipulated by those with power.

During 2004 and 2005, Wikipedia dealt with a number of media storms regarding errors in its political content: notably, the articles of George W. Bush and John Kerry during the 2004 presidential election.³⁶ The ambiguity of the election's contested results reverberated on Wikipedia in the form of "edit wars," and political vandalism continued to plague Wikipedia throughout Bush's second term, turning his article into one of the "most controversial" ever.³⁷ Knowledge was increasingly being politicized, and much of Capitol Hill was banned from editing Wikipedia anonymously during 2006 after politicians' articles were whitewashed in what the *Washington Post* called "wikipolitics."³⁸ During this period Wikipedia also first faced allegations of having a liberal bias—for example, by "evangelical Christians" who opened a conservative *wiki* of their own.³⁹ Reports like these helped grant social currency to the claim that knowledge was political like never before.

The politicization of knowledge, alongside a proliferation of alternative wikis—exacerbated in part by Wales's for-profit website Wikia, launched in 2006—all served to highlight the *wikiality* of America's political and media landscape. ⁴⁰ It was at this time that the first cases of "citogenesis"—circular and false reporting originating from Wikipedia—appeared. These incidents showed how dependent classic media was on Wikipedia—and therefore how politically vulnerable and unreliable it was by proxy. They included reports that cited the unfounded claim regarding Hillary Clinton's being

coverage had shifted from the epistemological merits of Wikipedia to legitimate concerns about bias in its contributor base.

The 2011 series about gender on Wikipedia followed a 2010 survey conducted by the United Nations University and UNU-MERIT that indicated only 12.64 percent of Wikipedia contributors were female among the survey's respondents.⁴⁹ Although the results of that study were later challenged,⁵⁰ the fact that the study received an entire series of articles indicates how the results struck a cultural nerve. What did it say about Wikipedia—and internet knowledge generally—that a disproportionate number of the contributors were men?

One could argue that this shift—from grappling with the underpinnings of Wikipedia's model of knowledge production to a critique of the actual forces and output of the *wiki* way of doing things—symbolized an implicit acceptance of Wikipedia's status as the preeminent source of knowledge in the digital age. Media coverage during this period no longer treated Wikipedia as an outlier, a fluke, or as an epistemological disaster to be entirely rejected. Rather, the press focused on negotiating with Wikipedia as an existing phenomenon, addressing concerns shared by some in the community—especially women, predating the Gamergate debate of 2014.

Press coverage of Wikipedia throughout the period of 2011 to roughly 2017 largely focused on the online encyclopedia's structural bias. This coverage also differed markedly from previous years in its detailed treatment of Wikipedia's internal editorial and community dynamics. The press coverage highlighted not only the gender gap in percentage of female *contributors* but also the gender gap in the *content* of biographical articles and the efforts by some activists to change the status quo. Publications ranging from the *Austin Chronicle* to the *New Yorker* covered feminist edit-a-thons, events to increase and improve Wikipedia's content for female, queer, and women's subjects, linking contemporary identity politics with the online project's goal of organizing access to the sum of human knowledge. In addition to gender, the press covered other types of bias such geographical blind spots and the site's exclusion of oral history and other types of knowledge that did not meet the Western notions of verifiable sources. Expression of the sum of the verifiable sources.

During this period, prestigious publications also began profiling individual Wikipedia contributors, giving faces and names to the forces behind our knowledge. "Wikipedians" were increasingly cast as activists and recognized outside the community. The *Washington Post*, for example, covered Dr. Adrianne Wadewitz's death in 2014, noting that Wadewitz was a "Wikipedian" who had "empower[ed] everyday Internet users to be critical of how information is produced on the Internet and move beyond being critical to making it better." The transition from covering Wikipedia's accuracy to covering Wikipedians themselves perhaps reflects an increased concern with awareness about the human motivations of the people contributing knowledge online. Many times this took on a humorous tone, like the case of the "ultimate WikiGnome" Bryan Henderson whose main contribution to Wikipedia was deleting the term "comprised of" from over 40,000 articles. Journalists (including the authors of this chapter) have continued this trend of profiling Wikipedians themselves.

A 2014 YouGov study found that around two-thirds of British people trust the authors of Wikipedia pages to tell the truth, a significantly higher percentage than those who trusted journalists.⁵⁵ At the same time, journalists were increasingly open to recognizing how crucial Wikipedia had become to their profession: with the most dramatic decline in newsroom staffs since the Great Recession, Wikipedia was now used by journalists for conducting initial research⁵⁶—another example of the mutually affirming relationship between the two.

As more journalists used and wrote about Wikipedia, the tone of their writing changed. In one of his reports for the *New York Times*, Noam Cohen quoted a French reporter as saying, "Making fun of Wikipedia is so 2007." When Cohen first began covering Wikipedia, most people saw Wikipedia as a hobby for nerds—but that characterization had now become passé. The more pressing concern, according to Cohen, was "seeing Wikipedia as *The Man.*" Overall, press coverage of Wikipedia during this period oscillates between fear about the site's long-term existential prospects and concern that the site is continuing the masculinist and Eurocentric biases of historical encyclopedias. The latter is significant as it shows how Wikipedia's pretenses of upending the classic print-model of encyclopedias have been accepted by the wider public, which, in turn, is now concerned or even disappointed that despite its promise of liberating the world's knowledge from the shackles of centralization and expertise, it has in fact recreated most of the biases of yesteryear.

Good Cop (2018–Present)

In April 2018, Cohen wrote an article for the *Washington Post* titled "Conspiracy Videos? Fake News? Enter Wikipedia, the 'Good Cop' of the Internet." For more than a decade, Cohen had written about Wikipedia in the popular press, but his "Good Cop" piece was perhaps his most complimentary and it signaled a wider change in perception regarding Wikipedia. He declared that "fundamentally ... the project gets the big questions right."

Interestingly, Cohen's "Good Cop" article is not unique for its positive press treatment of Wikipedia during this period and marks the latest shift in coverage of Wikipedia, one that embarks from the issue of *truthiness* and reexamines its merits in the wake of "post-truth" politics and "fake news"—2016 and 2017's respective words of the year.

The *Wall Street Journal* credited English Wikipedia's top arbitration body, Arbcom, with "keep[ing] the peace at [the] internet encyclopedia." Other favorable headlines from 2018 and 2019 included "There's a Lot Wikipedia Can Teach Us About Fighting Disinformation" and "In a Hysterical World, Wikipedia Is a Ray of Light—and That's the Truth." Wikipedia was described by the *Atlantic* as "the last bastion of shared reality" online, and for its eighteenth birthday, it was lauded by the *Washington Post* as "the Internet's good grown up."

What caused press coverage of Wikipedia to pivot from criticizing the encyclopedia as "the man" to recognizing Wikipedia's importance as the *good cop*? Several factors converged to cast Wikipedia in a more favorable light. Since the election of President Trump in the United States, the mainstream press has expressed concerns about whether traditional notions of truth and reality-based argument can survive under an administration that is infamous for lying and for its so-called alternative facts. The "truthiness" culture of intellectual promiscuity represented by the presidency of George W. Bush had deteriorated into the post-truth culture of the Trump White House. Wikipedia's procedural answers for the question "What is a fact?," initially hailed as flawed, could now be taken in a different light.⁶⁴

Wikipedia's emphasis on a neutral point of view and the community's goal to maintain an objective description of reality represent an increasingly striking contrast to politicians around the world whose rhetoric is not reality-based. 65 Moreover, the Wikipedia community's commitment to

time of her award, did not have a Wikipedia page; an earlier entry had been deleted by an editor who found that Strickland lacked sufficient notability, despite the fact her two male co-laureates had pages for the same academic research that earned the three the prestigious award. But note how the press coverage of Strickland did not dispute Wikipedia's underlying premise of community-led knowledge production. Rather, press coverage was continuing the structural critique from the previous phase. Further, by this era the Wikimedia Foundation had increasingly begun speaking publicly about matters of concern to the Wikipedia community. When it came to the Strickland incident, the Wikimedia Foundation was not overly apologetic in its public statements, with Executive Director Katherine Maher writing an op-ed for the Los Angeles Times titled "Wikipedia Mirrors the World's Gender Biases, It Doesn't Cause Them."⁷² Maher challenged journalists to write more stories about notable women so that volunteer Wikipedians have sufficient material to source in their attempt to fix the bias. Maher's comments, in other words, advocate further awareness of the symbiotic relationship between the media and Wikipedia.

The Strickland incident is in some ways an outlier during a time of relatively favorable press coverage of Wikipedia. How long will this honeymoon period last? One indication that the pendulum will swing back in a more critical direction is the coverage of large technology companies that rely on Wikipedia. The press widely covered YouTube's 2018 announcement that it was counting on Wikipedia to counteract videos promoting conspiracy theories when there had been no prior notice to the Wikimedia Foundation regarding YouTube's plans. Journalists also wrote—at times critically—about Facebook's plan to give background information from Wikipedia about publications to combat "fake news," about Google's use of Wikipedia content for its knowledge panels, and how smart assistants like Siri and Alexa pull information from the site.

Prominent tech critics have questioned whether it is truly appropriate to leverage Wikipedia as the "good cop" since the site is maintained by unpaid volunteers and tech companies are using it for commercial purposes. But from a news perspective, it might not matter so much whether it's fair or prudent for technology companies to leverage Wikipedia in this way—the appearance of partnership is enough to spur a news story. The more it seems as if Wikipedia has become aligned with "Big Tech," the more likely the encyclopedia will receive similarly adverse coverage.

- 29, 2019, https://en.wikipedia.org/w/index.php?title=Wikipedia:Press_coverage_2003 &oldid=760053436.
- 10. Walker, "Spreading Knowledge: The Wiki Way."
- 11. Jim Giles, "Internet Encyclopaedias Go Head to Head," Nature, December 14, 2005, https://www.nature.com/articles/438900a.
- 12. Dan Goodin, "Science Journal: Wikipedia Pretty Accurate," *Associated Press*, December 14, 2005. The *AP* report was reprinted in over 112 media outlets, including *Al Jazeera* and the *China Post*. The *BBC* also reported about *Nature*'s findings, writing: "Wikipedia Survives Research Test" (*BBC News Online*, December 15, 2005), as did Australia's *The Age* (Stephen Cauchi, December 15, 2005), to name a few.
- 13. John C. Dvorak, "The Wikification of Knowledge," *PC Magazine*, November 7, 2005, https://www.pcmag.com/article2/0,2817,1835857,00.asp; see also Jaron Lanier, "Digital Maoism: The Hazards of the New Online Collectivism," *Edge*, May 29, 2006, https://www.edge.org/conversation/jaron_lanier-digital-maoism-the-hazards-of-the-new-online-collectivism.
- 14. TED, "Jimmy Wales: How a Ragtag Band Created Wikipedia," YouTube, video, 20:48, January 16, 2007, https://www.youtube.com/watch?v=WQR0gx0QBZ4.
- 15. Wikipedia, s.v. "Wikipedia: Wikilove from the Press," last modified January 14, 2017, https://en.wikipedia.org/w/index.php?title=Wikipedia:Wikilove_from_the_press&diff=760052982&oldid=14045772; Wikipedia, s.v. "Wikipedia: America's Top Newspapers Use Wikipedia," accessed August 29, 2019, https://en.wikipedia.org/w/index.php?title=Wikipedia:America%27s_Top_Newspapers_Use_Wikipedia&diff=760053107&oldid=21067987.
- 16. Wikipedia, s.v. "The Signpost," Wikipedia, accessed August 29, 2019, https://en.wikipedia.org/w/index.php?title=The_Signpost&oldid=913126984.
- 17. Wikipedia, s.v. "Wikipedia: Press coverage," accessed August 29, 2019, https://en.wikipedia.org/w/index.php?title=Wikipedia:Press_coverage&diff=877404926 &oldid=33446632.
- 18. Wikipedia, s.v. "Wikipedia: Wikipedia as a Press Source," accessed August 29, 2019, https://en.wikipedia.org/w/index.php?title=Wikipedia:Wikipedia_as_a_press_source&oldid=601134577.
- 19. Katherine Q. Seelye, "Snared in the Web of a Wikipedia Liar," *New York Times*, December 4, 2005, https://www.nytimes.com/2005/12/04/weekinreview/snared-in-the-web-of-a-wikipedia-liar.html; Jason Fry, "Wikipedia's Woes," *Wall Street Journal*, December 19, 2005, https://www.wsj.com/articles/SB113450010488821460-LrYQrY_jrOtOK3IiwMcglEq6aiE_20061223. It was also on the front page of *Asharq Al-Awsat*'s December 9, 2005 print edition and was even reported in Russian: S. R., "Неслана шала са Википедије," *Politika*, December 16, 2005.

- 20. Giles, "Internet Encyclopaedias Go Head to Head."
- 21. Chris Nuttall, "Wikipedia Plans Site Shake-up to Counter 'Abuse,'" *Financial Times*, December 19, 2005.
- 22. Laura Sydell, "Wikipedia's Growth Comes with Concerns," *NPR's Weekend Edition*, February 20, 2005, https://www.npr.org/templates/story/story.php?storyId=4506421?storyId=4506421.
- 23. Seelye, "Snared in the Web of a Wikipedia Liar."
- 24. Allan Metcalf, "Truthiness Voted 2005 Word of the Year by American Dialect Society," *American Dialect Society*, January 6, 2005, 1–7.
- 25. Matthew F. Pierlott, "Truth, Truthiness, and Bullshit for the American Voter," in *Stephen Colbert and Philosophy: I Am Philosophy (and So Can You!), ed.* A. A. Schiller (Peru, IL: Open Court Publishing, 2009), 78.
- 26. The stunt earned Colbert (or at least a user associated with him) a lifetime ban from editing Wikipedia, but others followed suit: the *Washington Post's* satirical columnist Gene Weingarten, for example, introduced errors into his own page to see how long they would stand online—a genre in its own right—see, for example, Gene Weingarten, "Wiki Watchee," *Washington Post*, March 11, 2007, http://www.washingtonpost.com/wp-dyn/content/article/2007/03/06/AR2007030601573.html.
- 27. Frank Ahrens, "It's on Wikipedia, So It Must Be True," *Washington Post*, August 6, 2006, https://www.washingtonpost.com/archive/business/2006/08/06/its-on-wikipedia-so-it-must-be-true/c3668ff7-0b66-4968-b669-56c982c2c3fd/.
- 28. Johnson, "The Year in Ideas: A to Z; Populist Editing."
- 29. David Detmer, "Philosophy in the Age of Truthiness," in *Stephen Colbert and Philosophy: I Am Philosophy (and So Can You!)*, ed. Aaron Allen Schiller, (Peru, IL: Open Court Publishing, 2009); *The Colbert Report*, July 31, 2016.
- 30. Noam Cohen, "Start Writing the Eulogies for Print Encyclopedias," *New York Times*, March 16, 2008, https://www.nytimes.com/2008/03/16/weekinreview/16n cohen.html.
- 31. Simson L. Garfinkel, "Wikipedia and the Meaning of Truth," *Technology Review*, 111, no. 6 (2008): 84–86.
- 32. George Johnson, "The Nitpicking of the Masses vs. the Authority of the Experts," New York Times, January 3, 2006, https://www.nytimes.com/2006/01/03/science/the-nitpicking-of-the-masses-vs-the-authority-of-the-experts.html; Paul Vallely, "The Big Question: Do We Need a More Reliable Online Encyclopedia than Wikipedia?" Independent, October 18, 2006.
- 33. Lawrence M. Sanger, "The Fate of Expertise After Wikipedia," *Episteme* 6, no. 1 (2009): 52–73.

- 48. Terri Oda, "Trolls and Other Nuisances," *New York Times*, February 4, 2011; Anna North, "The Antisocial Factor," *New York Times*, February 2, 2011; Henry Etzkowitz and Maria Ranga, "Wikipedia: Nerd Avoidance," *New York Times*, February 4, 2011.
- 49. Ruediger Glott, Phillip Schmidt, and Rishab Ghoseh, "Wikipedia Survey— Overview of Results," United Nations University, March 15, 2010.
- 50. Benjamin Mako Hill and Aaron Shaw, "The Wikipedia Gender Gap Revisited: Characterizing Survey Response Bias with Propensity Score Estimation," *Plos One*, June 26, 2013, https://journals.plos.org/plosone/article?id=10.1371/journal.pone .006578.
- 51. Sarah Marloff, "Feminist Edit-a-Thon Makes Wikipedia More Diverse," *Austin Chronicle*, March 10, 2017, https://www.austinchronicle.com/daily/news/2017-03-10/feminist-edit-a-thon-makes-wikipedia-more-diverse/.
- 52. Seth Stephens-Davidowitz, "The Geography of Fame," New York Times, March 22, 2014, https://www.nytimes.com/2014/03/23/opinion/sunday/the-geography-of-fame.html.
- 53. Elaine Woo, "Adrianne Wadewitz, Wikipedia Contributor, Dies at 37," Washington Post, April 25, 2014.
- 54. Andrew McMillen, "Meet the Ultimate Wikignome," Wired, February 3, 2015, https://www.wired.com/2015/02/meet-the-ultimate-wikignome/.
- 55. William Jordan, "British People Trust Wikipedia More Than the News," *YouGov*, August 9, 2014, https://yougov.co.uk/topics/politics/articles-reports/2014/08/09/more-british-people-trust-wikipedia-trust-news.
- 56. Holly Epstein Ojalvo, "How Do You Use Wikipedia? Media People Talking About How They Use It," *New York Times*, November 9, 2010, https://learning.blogs.nytimes.com/2010/11/09/how-do-you-use-wikipedia/.
- 57. Noam Cohen, "When Knowledge Isn't Written, Does It Still Count?" New York Times, August 7, 2011.
- 58. Cohen, "When Knowledge Isn't Written, Does It Still Count?"
- 59. Andrew Lih, "Wikipedia Just Turned 15 Years Old. Will it Survive 15 More?" Washington Post, January 15, 2016, https://www.washingtonpost.com/news/the-intersect/wp/2016/01/15/wikipedia-just-turned-15-years-old-will-it-survive-15-more.
- 60. Noam Cohen, "Conspiracy Videos? Fake News? Enter Wikipedia, the 'Good Cop' of the Internet," *Washington Post*, April 6, 2018, https://www.washingtonpost.com/outlook/conspiracy-videos-fake-news-enter-wikipedia-the-good-cop-of-the-internet/2018/04/06/ad1f018a-3835-11e8-8fd2-49fe3c675a89_story.html.