A History of Newswork on Wikipedia

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ABSTRACT

Wikipedia's coverage of current events blurs the boundaries of what it means to be an encyclopedia. Drawing on Gieyrn's concept of "boundary work", this paper explores how Wikipedia's response to the 9/11 attacks expanded the role of the encyclopedia to include newswork, excluded content like the 9/11 Memorial Wiki that became problematic following this expansion, and legitimized these changes through the adoption of news-related policies and routines like promoting "In the News" content on the homepage. However, a second case exploring WikiNews illustrates the pitfalls of misappropriating professional newswork norms as well as the challenges of sustaining online communities. These cases illuminate the social construction of new technologies as they confront the boundaries of traditional professional identities and also reveal how newswork is changing in response to new forms of organizing enabled by these technologies.

Categories and Subject Descriptors

K.2 [Computing Milieux]: History of Computing; K.4.3 [Computers and Society]: Organizational Impacts—Computer supported collaborative work

General Terms

Standardization, Theory

Keywords

Wikipedia, journalism, breaking news, current events

1. INTRODUCTION

What does it mean for an encyclopedia to cover current events? Traditional publication methods prevent the *World Book Encyclopedia* or *Encyclopedia Britannica* from updating their articles to reflect major changes like the Arab Spring in 2011 or 2012 U.S. Presidential campaign. Yet these events have long and complex entries on Wikipedia

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WikiSym '13, August 05–07 2013, Hong Kong, China ACM 978-1-4503-1852-5/13/08 \$15.00.

authored by hundreds of editors that are viewed by thousands of users. This transformation provides a window to understanding how organizations adopt new identities and defend their legitimacy through "boundary work."

Since their advent in the mid-eighteenth century, it was "natural" that an encyclopedia would not cover recent events, new discoveries, or contemporary biographies due to the material limitations of printing as well as philosophical and cultural values of its editors [19, 25]. However the "naturalness" of this exclusion has been completely reversed in the last decade: users employ online encyclopedias (in addition to going to newspapers and broadcast media) to find information about current events [6, 8, 21]. Furthermore, Wikipedia is increasingly framed by traditional journalists as a neutral and reliable information source [21]. But how should encyclopedia editors balance new information and recent historical changes into a very large, collaboratively-authored document about historical events?

Wikipedia emulates patterns of encyclopedic production going back centuries [20], but also departs from traditional encyclopedic models many crucial dimensions. This article is an "origin story" tracing the trajectory of Wikipedia's policies on the use of breaking news events back to a transformative case and illustrates how Wikipedia has come to inhabit the social world of news work. While Wikipedia firmly locates its identity within the encyclopedic genre, its concentrated editorial focus on articles about current events required its users to re-demarcate the types of knowledge worthy of inclusion. Wikipedia has developed an extensive set of standards and rules governing the scope and type of current events that may be included. I argue this process of re-demarcating boundaries has a remarkable correspondence with the institutionalization of journalistic news values and follows processes of Gieryn's boundary work [13].

This paper examines how the outpouring of editorial effort on the English Wikipedia in response to the terrorist attacks of September 11, 2001 (hereafter, "9/11") influenced subsequent responses to current events on Wikipedia. As the encyclopedia developed, 9/11-related memorial content became problematic. The community engaged in complex boundary work to isolate this "unencyclopedic" content by adopting regulations governing the type and extent of information permitted to be in the encyclopedia while simultaneously promoting the existence of a dedicated WikiNews project. These policies are remarkably similar to the news values seen in traditional forms of journalism and illuminate the permeability of boundaries in encyclopedism and journalism.

2. BACKGROUND AND APPROACH

Since 2003, the top 25 Wikipedia articles with the most contributors every month consists nearly exclusively of articles pertinent to current events. For example, the articles which attracted the most contributors in February 2011 included "2011 Egyptian revolution", "Super Bowl XLV", and "2011 Christchurch earthquake". Similarly, articles receiving the most unique edits and page views in any given week or month likewise demonstrate a substantial bias toward articles about current events. This shift has been made all the more poignant by Britannica's announcement in April 2012 that it ceased the publication of its print edition after 244 years to re-focus its efforts on its online encyclopedia: the standard form of an encyclopedia has become entirely digitized and perpetually up-to-date.

Gieryn's "boundary work" provides a theoretical framework to understand the kinds of strategic action actors employ to differentiate their work from work from others [13]. Scientists, for example, employ three genres of boundary work: "expansion" to acquire intellectual authority over a domain, "expulsion" to deny resources to non-conforming agents like amateurs, charlatans, pseudo-scientists, and "exemption" to protect their intellectual province from outside social or political interference. In the context of encyclopedias, how did editors engage in analogous processes to expand the encyclopedic genre in light of new developments permitting a "synchronous encyclopedia" (expansion)? What actions did they take to differentiate themselves from competing approaches to knowledge sharing such as journalism (expulsion)? And how did they ensure this work remained independent from outside social and political forces (exemption)?

Wikipedia's coverage of breaking and current news events is illustrative of what happens when a genre's historical conventions and cultural values collide with the affordances of new information technologies unconstrained by the former's material limitations. Building on prior work that has examined how collaborations around breaking news events differ from traditional Wikipedia articles [15, 16, 17], I use case studies about the 9/11 Memorial Wiki and WikiNews to examine the boundary work Wikipedians engaged in to redefine encyclopedism to include journalistic accounts. Writing histories of the web raises complex questions of power and preservation involving the artifacts as well as practices that generate them [1]. Because these debates and the evolution of precedents, rules, platforms, and tools occurred within the confines of Wikipedia itself, they have largely been recorded and preserved for analysis. This analysis also draws upon the Internet Archive's Wayback Machine³ to examine the history of Wikipedia pages predating its current archival system.

3. THE SEPTEMBER 11 ATTACKS

The audacity and destruction of the terrorist attacks on September 11, 2001 created haunting images that were widely disseminated through new forms of media such as web sites, e-mail, and instant messaging applications. People flocked

3http://archive.org/web/web.php



Figure 1: Screen capture from October 9, 2001 of Wikipedia's article about the September 11 attacks.

to these new channels to receive the latest information, check in with each other, and begin the process of trying to make sense of the calamity by joining discussions and coping [22]. The responses on the web suggested new forms of two-way information sharing, collective action, and civic engagement which challenged prevailing models of hierarchical organizing or centralized broadcasting [11].

Wikipedia was founded in January 2001 and thus provides an important example of how it was used to support high-tempo knowledge collaboration and sharing during this event. Unfortunately, changes to Wikipedia's technological systems and software have removed revisions made to any articles created before early 2002, making an authoritative history of editors' revisions to other articles about major events in 2001 (President George W. Bush's inauguration, merger of AOL-TimeWarner, etc.) or the immediate aftermath of the attacks unavailable. However, cached versions are available from the Internet Archive's "Wayback Machine" from as early as October 9, 2001^4 as seen in Figure 1.

3.1 Initial response

The scale of Wikipedians' responses in the four weeks following the September 11 attacks was profound. Wikipedia had approximately 13,000 articles in October 2001 and no fewer than 1% of these articles (approximately 100) were directly related to the attacks, aftermath, lists of news articles, and articles about casualties and survivors. As seen by the hyperlinks from the parent article in Figure 1, the topics of these articles are wide-ranging and include ostensibly encyclopedic content such information about the flights, buildings, military and economic responses but also non-encyclopedic content such as a list of casualties and survivors, personal recollections, and details about how to donate blood, money, or provide other assistance.

The lists of casualties, missing persons, and survivors are

 $^{^{1} \}verb|http://stats.wikimedia.org/EN/TablesWikipediaEN.htm#| zeitgeist$

²⁴⁴⁻years-encyclopaedia-britannica-stops-the-presses/

⁴http://web.archive.org/web/20011009234151/http://www.wikipedia.com/wiki/September_11,_2001_Terrorist_Attack

striking insofar as the authors of this content invoked the policy "Wiki is not paper" to argue that each victim warranted a separate article.⁵ One of the primary editors, "The Cunctator", called for editors to build memorial pages by adding content to personal experiences, building articles for casualties using a template, creating articles such as a timeline, biography of Osama bin Laden, or box-cutter knife.⁶ By October 17, there was a list categorized by last names, location, and status (civilian vs. responder) containing several dozen articles about victims.⁷ However, the task of writing biographies for more than 3,000 victims and survivors was beyond the capabilities of the few dozen contributing editors. Other editors began to raise concerns about the coherence of these articles' quality, lasting notability of these victims, or the importance of this project to authoring an encyclopedia.

3.2 **Community reactionism**

Following several months of intense discussions surrounding the deletion of non-notable victims' articles from Wikipedia, by September 2002 there was a concerted discussion about the "September 11 pages" . A consensus emerged to remove the content related to victim memorials, tributes, personal experiences, and general discussion to a "September 11 Memorial Wiki." The Memorial Wiki project was launched in March 2003 and hosted by the Wikimedia Foundation akin to another language version of Wikipedia.⁸ The Memorial Wiki's mission was to provide "additional resource[s] of personal opinions, individual experiences, memorials, and tributes" while Wikipedia's content was to be focused on a "neutral and complete history of the attack, including the background history, the aftermath, and more."9

This decision had the effect of creating a parallel English Wikipedia solely devoted to 9/11-related topics. This "9/11 Memorial Wiki" was immediately controversial: some editors felt the focus on memorializing the victims of the event distracted from the mission of writing about topics of encyclopedic importance, was an artifact of a non-neutral, chauvinist, or ahistorical perspective over-emphasizing the recent past and would set a precedent that should extend to creating memorial spaces for victims of other attacks, genocides, and catastrophes. Which victims, topics, and articles were notable enough to remain on Wikipedia and which were to be moved to the new website were also highly charged discussions.

Following the catastrophic 2004 Indian Ocean earthquake and tsunami, suggestions were again made to create an analogous memorial wiki. However, this proposal was dismissed by both the community and Wikimedia Foundation citing both the reluctance to create a memorial wiki following each disaster as well as refusal to adjudicate which disasters were sufficiently serious to warrant them. Moreover, the failure of the 9/11 Memorial Wiki to independently thrive was obvious: there was little daily editing activity, content had stagnated, and lacked a core of dedicated editors to police changes from newbies and vandals.

3.3 9/11 Memorial Wiki deletion

Following the emergence of policies regulating news and memorial-related content (see next section) as well as a growing body of jurisprudence governing notability and neutral point of view (NPOV) from other articles, editors began to point the untenability of maintaining a memorial with personal and non-NPOV content under the aegis of the Wikimedia Foundation's mission. 10 A proposal to delete the September 11 Memorial Wiki was introduced in December 2005 with an overwhelming consensus to close the project. 11

Another proposal was introduced in early 2006 to move the content from under the Wikimedia Foundation to another site such as MemoryWiki.org. 12 In May 2006, another extensive discussion occurred as a result of a proposal to close the Memorial Wiki with over 104 editors supporting closure and only 6 editors opposing. ¹³ In September 2006, the Memorial Wiki was made "read only" which effectively locked it from any further editing and then was taken completely offline from Wikimedia Foundation servers at a later date. 14 The 9/11 Memorial Wiki content was hosted at "sep11memories.org" until at least June 2009 but as of March 2013, the domain name no longer resolves. A database dump of the content remains available 15 as well as cached versions through Internet Archive, but the 9/11 Memorial Wiki effectively ceased to exist as a wiki to contribute to just five years after its creation.

3.4 Persistence of 9/11 content

Despite the dissolution of the 9/11 Memorial Wiki, a substantial amount of 9/11-related content remained on Wikipedia and continued to be edited. The category contains 88 articles as well as eight subcategories about the aftermath, buildings destroyed, criticism of official accounts, people associated, memorials and flights. As of January 2012, 309,727 revisions from 65,032 unique editors have been made to the 606 articles in this category and its sub-categories. Articles about the timeline of events, information on the flights and hijackers, effects on airport security and economy, aftermath for closings and cancellations, government and military response, lists of memorials and services continue to exist well after their creation in 2001.

Figure 2 summarizes the time evolution of the "September 11 attacks" category. Editing activity peaked around the 5-year anniversary in 2006 and bursts of activity are also observed near the anniversaries suggesting editing is a form of commemoration [9, 10]. The 605 articles related to the "September 11 attacks" article continue to receive dozens of contributions per day and seven of these articles have been awarded "Featured Article" status reflecting their quality.

 $^{^5 {\}rm http://web.archive.org/web/20011009025548/http:}$ //www.wikipedia.com/wiki/September_11,_2001_Terrorist_ Attack/Casualties_Talk

 $^{^6}$ http://meta.wikimedia.org/wiki/Sep11wiki

⁷http://web.archive.org/web/20011110011001/http: //www.wikipedia.com/wiki/September_11,_2001_Terrorist_ Attack/Casualties

 $^{^8}$ http://web.archive.org/web/20030413072718/http: //sep11.wikipedia.org/wiki/In_Memoriam

⁹http://meta.wikimedia.org/wiki/Dealing_with_September_ 11_pages

 $^{^{10}\}mathrm{http://meta.wikimedia.org/wiki/Sep11wiki/Babel_thread}$ $^{11}\mathrm{http://meta.wikimedia.org/wiki/Sep11wiki/Request_for_}$ deletion

¹² http://meta.wikimedia.org/wiki/9/11_wiki_move_proposal $^{13}\mathrm{http://meta.wikimedia.org/wiki/Proposals_for_closing_}$ projects/Archive/September_11_Wiki

 $^{^{14}}$ http://lists.wikimedia.org/pipermail/foundation-1/2006-September/023338.html

 $^{^{15}\}mathrm{http://dumps.wikimedia.org/sep11wiki/20071116/}$

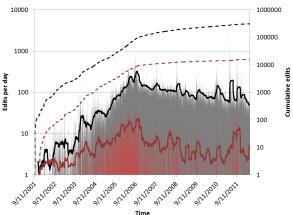


Figure 2: Edit activity on 606 articles in "September 11 attacks" category and subcategories are in grey and on the main article about the event in red. 60-day moving averages in darker shades and cumulative edit count in dashed lines (colored respectively).

4. NEWS ON THE HOMEPAGE

Like other peer-produced projects and online communities, the young encyclopedia urgently needed to recruit more contributors to generate content and sustain an active community. The burst of activity related to the production and consumption of 9/11-related content was likely impossible for administrators on the project to ignore and links to these oft-sought articles were placed on the Wikipedia homepage by early October under the labels of "Breaking News" and "Special features: current events." The choice to privilege this content reflected imperatives to not only channel readers to popular content, but also to demonstrate the potential of the platform to rapidly author content.

Given the continued unfolding of news events, this frontpage content evolved and expanded in scope from 9/11related content to include a "Current Events and Breaking News" section with the note:

"Encyclopedia articles about topics behind the news. Develop articles about important events as they happen!"

By November 5, 2001, this current events section—which had been devoted to 9/11-related articles such as the aftermath of the attacks, the coalition campaign in Afghanistan, Osama bin Laden, and government agencies—expanded and included a link to a dedicated "Current Events" article. Other articles related to international, business, sports, and celebrity news were also included on this new article, albeit in substantially less detail than the 9/11-related content.

By early January 2002, the Current Events article had evolved from a list of articles providing background about topics in the news to a temporally ordered list of topics appearing in the news. By August 2002, content related to terrorism, the 9/11 attacks, and war in Afghanistan had been removed entirely and replaced with a daily blotter of articles about events in the news. 9/11-related content disappeared from the "Current events and breaking news" section on the Wikipedia homepage by January replaced by a link to the "Current Events" article and an assortment of other salient

(a) before re-design

Selected Articles

In the news: Peter Beattie - Hans Blix - Sri Lanka - Moscow Metro - Ricin incident
Recent deaths: Rebeca Martinez - Abdul Rahman Munif - Eleanor Holm - Carlie Bruscia
New articles: US Eighth Army - Trugernama - William Jessop - Superb Fairy-wren
Featured articles: Paradox - Chess - Éire - Io (moon) - White Rose - Vampire - Punk rock
Anniversaries: February 9 - The Beatles on The Ed Sullivan Show - Mandaluyong City
Hollywood Walk of Fame - Volleyball - Emperor Zeno - The Simpsons

(b) after re-design

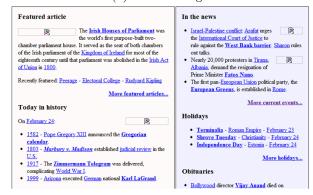


Figure 3: Current events templates before and after 2004 re-design.

articles. As seen in Figure 3(a), the Current Events section was re-labelled "In The News" (ITN) by November 2002 and was joined by other sections on "Recent deaths", "Ongoing events", and "Historical anniversaries". These sections only included hyperlinks to articles while the "Current Events" article included sentence-length summaries of news events. Before the Main Page was protected so that only administrators could revise it, edit wars between users were common as they debated which articles were sufficiently important or still timely to merit inclusion in this section.

4.1 Privileging "In the News" content

A major redesign of the Wikipedia homepage in February 2004 led to ITN and other homepage sections becoming specialized objects called "templates" rather than simple hyperlinks (see Figure 3(b)). ¹⁷ While the ITN section which had appeared on Wikipedia's homepage over two years had simply linked to the "Current Events" article and was followed by context-free hyperlinks, the creation of an ITN template differentiated practices in how current events were communicated on the homepage and assigning this content substantially more prominence than other content in prior "Selected Articles" table.

While the "Current Events" page remained a daily blotter any user could edit with sentence-length and hyperlinked summaries of the news, the ITN template adopted the same sentence-length summaries but with some important differences in practice. Because of its prominence on Wikipedia's homepage, the template was a magnet for vandalism and tendentious editing and on-going debates about Anglophone biases resulted in it being permanently protected in February 2005. Following this protection, non-administrative Wikipedia editors had to nominate current events candi-

¹⁶ http://web.archive.org/web/20011105190446/http: //www.wikipedia.com/wiki/Current_events

¹⁷ http://web.archive.org/web/20040224004817/http: //en.wikipedia.org/wiki/Main_Page

¹⁸http://en.wikipedia.org/wiki/Wikipedia_talk:In_the_news/Archive_2#Protected

dates to be discussed until the group reached a consensus and successful candidates were later added by an administrator. This nomination and deliberation process for ITN items has remained largely unchanged through 2013.

The practices around Wikipedia's promotion of current events topics through the ITN section shifted dramatically as the project itself became more popular. What began as a feature to rapidly funnel users to the most-used content in the aftermath of the 9/11 attacks evolved to become a mechanism for highlighting a variety of timely content for information seeking readers and recognition that wikis could enable encyclopedias to be reference works that are authoritative as well as dynamic and relevant. The institutionalization of the Current Events and ITN sections reflected the stabilization of this content's role in the daily operation of the community. Wikipedia's privileging of Current Events on its homepage illustrated the possibilities of creating an encyclopedia that was not only authoritative owing to its radical openness, but also for matching users information seeking behavior with wikis' information production behavior by showcasing suddenly salient knowledge.

5. POLICIES FOR NEWS CONTENT

Like its encyclopedia articles, Wikipedia's policies are open to being revised by community members: changes can be introduced unilaterally or after extensive deliberation. Consensus around these policies is often constructed, expanded, legitimized, or challenged through a network of guidelines that are typically norms governing mundane topics such as style and formatting as well as essays which can be humorous observations, detailed expositions of a position, or a synthesis of other policies [23].

Each of these standards are components of a larger administrative apparatus that allows editors to self-regulate their behavior and interrelate their actions with others in the absence of any overt coercive or central coordinator [5]. This system of standards serves to depersonalize authority from agents with particular expertise or familiarity and abstracts this authority to a system of rules, norms, and conventions which are often implicit and learned by participation [4]. The invisibility of standards obscures the moral arguments and technical work that went into their development until attempts are made to change or ignore them [2].

5.1 Identity and notability

Between 2002 and 2008, Wikipedia adopted several policies about news-related content, memorials, and the notability of events. These policies emerged from a variety of precedents, but they are notable because they excluded many types of content that is produced during an unfolding news event and moreover, would have excluded a substantial amount of 9/11-related content itself. An early policy on Wikipedia was a "What Wikipedia is Not" (also known as "WP:NOT", in the Wikipedia shorthand for policies) to enumerate organizational forms, identities, or missions in which the encyclopedia project would not engage. In September 2002, user "Toby Bartels" updated "WP:NOT" to include a passage about news reports: 19

A news report. Wikipedia should not offer news reports on breaking stories. However, creating

"encyclopedia" articles on topics currently in the news is an excellent idea. See "current events" for some examples. (However, the Wiki process lends itself to collaborative, up-to-the-minute construction of current events of historical significance, as long as these are written as encyclopedia articles.)

This policy became known as "WP:NOT#NEWS" and since evolved to the following: $^{20}\,$

"As Wikipedia is not a paper source, editors are encouraged to include current and up-to-date information within its coverage, and the development of stand-alone articles on significant current events. However, not all verifiable events are suitable for inclusion in Wikipedia. Ensure that Wikipedia articles are not:

- 1. Journalism. Wikipedia should not offer first-hand news reports on breaking stories. ... Wikipedia does have many encyclopedia articles on topics of historical significance that are currently in the news, and can be updated with recently verified information. Wikipedia is also not written in news style.
- 2. News reports. Wikipedia considers the enduring notability of persons and events. While news coverage can be useful source material for encyclopedic topics, most newsworthy events do not qualify for inclusion. ... While including information on recent developments is sometimes appropriate, breaking news should not be emphasized or otherwise treated differently from other information."

This policy, in turn, references another policy known as a notability guideline specific to events ("WP:EVENT"). This policy derives from the central notability guideline which tests whether a topic can have a dedicated article by asking "if a topic has received significant coverage in reliable sources that are independent of the subject, it is presumed to satisfy the inclusion criteria for a stand-alone article." Discussions about notability and importance stem from early discussions on the Wikipedia mailing list, ²¹ including debates about what to do with the biographies of "unimportant" people that lead to the spin-off of the 9/11 Memorial Wiki.

Following rancorous "inclusionist" versus "deletionist" debates about the scope of the content to be included in Wikipedia [23], efforts to write a policy specifically enumerating how to determine Wikipedia's encyclopedic notability began in September 2006. ²² Because different domains have different standards for notability, a guideline specific to news events was proposed in August 2008 and was promoted to full guideline status in December 2009 after a community consensus for its need. The guideline has a five-pronged test to establish the notability of events: ²³

¹⁹http://en.wikipedia.org/w/index.php?title=Wikipedia: What_Wikipedia_is_not&diff=next&oldid=295853

 $^{^{20}}$ http://en.wikipedia.org/wiki/Wikipedia:NOTNEWSPAPER#NEWSPAPER

²¹http://lists.wikimedia.org/pipermail/wikipedia-1/2002-September/005458.html

²²²http://en.wikipedia.org/w/index.php?title=Wikipedia: Notability&oldid=74402065

²³http://en.wikipedia.org/wiki/Wikipedia:Notability_
(events)

- 1. Lasting effects. An event that is a precedent or catalyst for something else of lasting significance is likely to be notable.
- 2. Geographical scope. Notable events usually have significant impact over a wide region, domain, or widespread societal group.
- 3. **Depth of coverage.** An event must receive significant or in-depth coverage to be notable.
- 4. **Duration of coverage.** Notable events usually receive coverage beyond a relatively short news cycle.
- 5. Diversity of sources. Significant national or international coverage is usually expected for an event to be notable. Wide-ranging reporting tends to show significance, but sources that simply mirror or tend to follow other sources, or are under common control with other sources, are usually discounted.

The policy emphasizes that otherwise reliable sources' routine coverage of wedding announcements, obituaries, sports scores, crime blotters, or entertaining "man-bites-dog" events; sensationalist gossip or scandal mongering; and one-hit wonder people notable for only a single event generally do not meet the notability threshold and should be excluded. The policy also has guidelines specific to breaking news events:

"It is wise to delay writing an article about a breaking news event until the significance of the event is clearer as early coverage may lack perspective and be subject to factual errors. ... However, articles about widely reported major unexpected or unprecedented events such as the 2004 Indian Ocean earthquake, the Assassination of Benazir Bhutto or the Death of Michael Jackson will almost certainly gain consensus to be kept even when created on the same day as the event occurred."

This test and related articulations of the policy have remarkable congruence with the news values proposed by Galtung and Ruge [12]. "Lasting effects" is a type of threshold reflecting the intensity of an event, "geographical scope" is a combination of reference to elite nations and meaningfulness, "depth of coverage" is a type of threshold and consonance, "duration of coverage" is an example of continuity, and "diversity of sources" is a type of imitation while the exclusion of routine events and anticipation of notability are examples of unexpectedness and consonance.

Wikipedia's adoption of policies aligning with the standards and news values of journalists followed the development and adoption of other policies governing the types of content that warrant inclusion. The presence of memorial content related to the 9/11 attacks in particular created the precedent for other users to attempt to use the encyclopedia as a memorial. While the debates about how to deal with 9/11 Memorial content were on-going, in November 2004 user "MacGyberMagic" updated "WP:NOT" to reflect a new boundary: 24

A memorial. It's always sad when people die, but Wikipedia is not the place to honor them. We're trying to build [an] encyclopedia. Of course, you're free to write articles about dead celebrities or other people with notable achievements. (9/11 victims should be entered on the 9/11 memorial wiki)

This policy has since been absorbed into the "Wikipedia is not a blog, webspace provider, social network or memorial" thread within the "WP:NOT" policy and reads:²⁵

Memorials. Subjects of encyclopedia articles must satisfy Wikipedia's notability requirements. Wikipedia is not the place to memorialize deceased friends, relatives, acquaintances, or others who do not meet such requirements.

The necessity of such a rule and consensus to adopt it reflected interesting ambiguities about the motivations of contributors, arrangement of technical capabilities and standards, and practices of analogous institutions. The web provided a medium for both the dissemination of information about major events as well a forum for discussion and social sharing of emotions in response to cultural traumas [7]. Wikipedia was a crucial component in this information sharing and sensemaking ecosystem and, moreover, explicitly encouraged users to participate in the construction of articles about news events.

5.2 Balancing imperatives

The response of editors authoring memorial content and editors attempting to remove it are telling as they surface the implicit and negotiated order of the norms and standards of the community and reveal a break between human interest news values with encyclopedic imperatives. The emergence of these policies in response to the unintended precedent set by the 9/11 Memorial Wiki content reflects a particular kind of boundary work to expand the encyclopedic genre to include news-related content, exclude particular types of news content deemed to be unencyclopedic, and justification of this decision articulating these new boundaries through the values and standards of other elite institutions.

Wikipedians, when faced with decisions over which events warrant coverage in their work, emulated the news values journalists had long employed. Committed Wikipedians approached the issue of memorials to victims of news events through the lens of NPOV and notability policies: if Britannica would not commemorate or eulogize the passing of this person, why should Wikipedia? However, the authors of this memorial content had reason to believe it warranted inclusion given the importance assigned to it by otherwise reliable sources: if CNN and ABC have content memorializing and commemorating these victims, why shouldn't Wikipedia? This type of ambiguity necessitated the creation of the memorial policy effectively privileging the encyclopedic imperative over the commemorative imperative. Indeed, Wikipedians' reluctance to abandon their standards of neutrality and notability to engage in the memorialization found in major news outlets even comes full circle as a reflexive critique against journalism failing to adhere to its own standards: Wikipedians do a "better" job of neutrally sharing the real news than even journalists.

²⁴http://en.wikipedia.org/w/index.php?title=Wikipedia: What_Wikipedia_is_not&diff=7964872&oldid=7910671

 $^{^{25} \}rm http://en.wikipedia.org/wiki/Wikipedia:NOTMEMORIAL\#MEMORIAL$

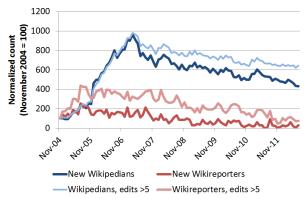


Figure 4: Comparison of growth in English Wikipedia and English WikiNews.

6. FAILURE OF WIKINEWS

The success of breaking news coverage on Wikipedia as well as limitations imposed by the encyclopedic genre motivated members of the community to adapt Wikipedia's freecontent, open collaboration model for news reporting. The first proposal came on January 5, 2003 on the Meta-Wiki and proposed creating a project having "news on a wide variety of subjects, unbiased and in detail."²⁶ By June 2004 a formal discussion was started with the goal of starting the project and a demonstration wiki was launched in November 2004 to begin developing the technical and community infrastructure and the project was moved into a beta stage in December 2004 with multi-language editions eventually launching in more than 20 languages.

WikiNews distinguished itself from collaborative or citizen journalism projects like OhmyNews by emphasizing the neutral point of view policy imported from Wikipedia, but unlike Wikipedia, it encouraged original reporting, interviews, and research. Major events such as the 2004 Indian Ocean earthquake and tsunami, 2005 Hurricane Katrina, and Iraq War provided the early impetuses for growth on the project, growing to 1,000 articles by March 2005.

6.1 Differentiating from Wikipedia

Early discussions about establishing a "WikiNews" project wavered between critics' concerns that the project would be a fork and distraction from Wikipedia's existing coverage of current events and a poor imitation of better-resourced professional approaches to news gathering versus proponents' assurances the project would create an outlet and community for editors whose contributions are rebuffed because of Wikipedia's restrictive policies and would appeal to a larger set of the population who regularly consume news. Advocates believed editors already contributing to current events articles on Wikipedia would join the WikiNews project, the ease and style of contributing on Wikipedia would be easily adapted, Wikipedia's NPOV policy would broaden the pool of readers and contributors, and the lack of space limitations would permit broad topical coverage as well as deep investigative reporting with in-line referencing of source material. But important differences also existed. While some proponents envisioned a project serving as a secondary source curating a chronological index of articles, images, and other content elsewhere on the web, the majority backed the idea of a project where "WikiReporters" provided primary source

material that could be synthesized and integrated with other accounts.

Like Wikipedia, WikiNews employed a host of rules and stylistic guidelines, but these were distinguished from Wikipedia's by an emphasis on the need for content to be sourced and to use a "news" style. Unlike Wikipedia, WikiNews also permitted editors to engage in "Original Reporting" by conducting and publishing interviews, eyewitness accounts, taking pictures, and abiding by a code of ethics. Most significantly, WikiNews articles were tagged as "In Development" until they had the appropriate levels of information, citations, and stylistic coherence. After editors were done developing an article, they could flag it for review and "hopefully a reviewer [would] review the article in short order." 27

Reviewers ensured that articles had no copyright infringement, met newsworthiness guidelines, had verifiable sources, employed a neutral point of view, and abide by the style guidelines before flagging the article for publication to the WikiNews homepage. This latter part is a significant departure from Wikipedia's model where the vast majority of Wikipedia articles neither require formal vetting nor differentiate the status of articles as being "final" or "in development": attempts to edit a published article on WikiNews are met with the warning in Figure 5 while no corresponding warnings exist for Wikipedia articles that are featured on its homepage. Emphasizing that only minor changes should be made, no new sources introduced, and major new developments require the creation of an entirely new article substantially, the WikiNews model diverged significantly from the Wikipedia model that invites contributions of almost any type on any article at any time.

WikiNews ultimately adopted an "anyone-can-edit" model analogous to Wikipedia, but rather than developing a new genre of news work particular to the participatory, high tempo, and hyperlinked online context, proponents arguably set their sights too low: they emulated the variety of news genres such as reports, summaries, and analyses from traditional forms of journalism. New developments could not be integrated into existing accounts but had to be spun off and developed from scratch. However, it is difficult to know a priori whether breaking news developments will require deep and sustained attention of a several WikiNews articles or minor modifications to an existing article about the event. This creates a chicken-and-egg problem in which existing articles on WikiNews would forgo coverage of the new development out of deference to rules that new content should only appear in follow-on coverage but at the same time the creation of new articles lags until more information comes to light and editors with the motivation to begin writing an entirely new article appear. As a result, WikiNews articles almost always contain stale information.

This emphasis on becoming a primary source for news was a significant departure from Wikipedia's existing norms around reliable secondary and tertiary sources, notability of people and events, and low barriers to participation. This departure was important to differentiate it from the work already being done on Wikipedia and WikiNews proponents embarked on a familiar pattern of boundary work to expand the domain of open collaboration to journalism, exclude competing agents such as news espousing non-neutral

 $^{^{26} \}verb|http://meta.wikimedia.org/wiki/Talk:Wikinews/Archive|$

²⁷http://en.wikinews.org/wiki/Wikinews:Writing_
an_article, http://en.wikinews.org/wiki/Wikinews:
Reviewing_articles

Caution! You are about to change a Wikinews article published some time ago.

Wikinews articles are a snapshot of what is known at a specific point in time. They are not meant to be encyclopedic; such content should be added to the appropriate Wikipedia articles. If you are a new contributor to Wikinews, please see the introduction.

All contributors should note the points below:

- Do not make substantial changes to any article published more than 24 hours ago.
- Do not add details from sources more recent than the date of the article's publication.
- Do not add unsourced material.
- . Do not editorialise or add personal, or unattributed, opinion.
- If there are significant developments subsequent to publication, visit the newsroom and start a new article.

Figure 5: Warning on WikiNews articles when editing a current event.

points of view, and justifying this arrangement through the patterning institutional and technical infrastructures to establish reliability and authority. However, this boundary work introduced major path dependencies on the pool of readers and contributors and the types of contributions and content both of which erected barriers to participation from existing Wikipedians, failed to attract an audience or community of dedicated users, complicated attempts to collaboratively write stories in a coherent narrative voice, and often delayed the publication of events until after their newsworthiness had passed.

6.2 Underprovision and decline

WikiNews failed to thrive in comparison to the explosion of traffic, contributions, and new editors on Wikipedia at the same time (see Figure 4). Throughout this era, Wikipedia had orders of magnitude more editors and content than its sister project. WikiNews generated only 15 new articles a day at its peak in mid-2005 (in comparison to an average of approximately 1,500 new articles. Wikipedia at the same time) and by 2008 the average number of new articles per day was fewer than 10 and falling further below 5 by 2011. In September 2011, a large portion of the English contributor community departed to join a fork called "OpenGlobe" with more lax publication policies.

The reasons for the failure of WikiNews relative to the success of Wikipedia are multifaceted. The resource dependency between the project and the environment is important. As Jonathan Dee noted [8]:

"So indistinct has the line between past and present become that Wikipedia has inadvertently all but strangled one of its sister projects...Wikinews. ...On bigger stories there's just no point in competing with the ruthless purview of the encyclopedia".

Wikipedia received far more web traffic that resulted in a much larger pool of potential contributors as well as greater visibility for the content that in turn can motivate many users. Wikipedia also had a far larger editor base meaning there were more editors with the skill and experience that can be translated from other domains to writing news articles. While WikiNews linked extensively in the body of the text to Wikipedia articles to provide contextual details, links from Wikipedia articles to corresponding WikiNews articles were rare and require specialized formatting. Furthermore, many categories of encyclopedia articles about events such

as earthquakes and hurricanes are not only highly formulaic but had highly-specialized communities of dedicated editors whose experience with the style, sources, and vocabulary of writing articles about historical events readily translated to writing about breaking news articles about the same [16].

The normative style of writing news articles is also very distinct from writing encyclopedia articles. Whereas news stories emphasize parallel and iterative accounts of the latest developments on a single topic that often lack context, encyclopedia articles normatively require authoritative and integrated accounts. As a result, while WikiNews may invite potential editors to contribute to any of several dozen articles about the impacts of a major event such as the 2004 Indian Ocean earthquake, Wikipedia offers a central and up-to-date page containing a complete and contextualized synopsis rather than a collection of static accounts.

The articles promoted to the WikiNews homepage are also interesting because they do not resemble the stories being covered in other news outlets. For example, headlines appearing on the homepage in mid-August 2012 include "Reform Party of the United States nominates fitness model Andre Barnett for president", "Students from Liceo Maria Luisa Bombal of Rancagua, Chile detained after taking control of school", and "Cities across Texas increase efforts to combat mosquitos."²⁸ Part of this reflects the adoption of unique news values attempting to appeal simultaneously to international and local audiences, but also is emblematic of the hazards of a strong peer review gatekeeping model also seen in Nupedia: content ends up reflecting the interests of editors who possess the motivation and skill to navigate the system, even if the topics are obviously provincial, rather than gratifying the needs of the general population.

As complex as the Wikipedia or WikiNews projects are, they are still embedded within larger socio-technical structures of web use such as technical standards and search engines. This interaction of journalistic norms with technical features of these wiki-based projects had a profound impact. Former Google vice president Marissa Mayer noted that journalist norms emphasizing frequent and parallel publishing of content on the same topic results in web pages competing against each other in terms of authority and placement in search results. She asked, ²⁹

"how [might] the authoritativeness of news articles grow if an evolving story were published under a permanent, single URL as a living, changing, updating entity?"

Whereas WikiNews sought to emulate the traditional nature of journalistic storytelling emphasizing iterative, parallel, and static reports of an event which undermined its ability to develop a critical mass of effort or attention on a topic, Wikipedia's insistence on a single but repeatedly updated account boosted it to the top of search results. Moreover, the way algorithms like Google's PageRank assign importance to web pages meant that breaking articles on Wikipedia would inherit authority from other Wikipedia articles which are themselves highly ranked by Google.

Differences between Wikipedia's and WikiNews's publication models thus have profound impacts on how users search,

²⁸http://en.wikinews.org/w/index.php?title=Main_ Page&oldid=1519685

²⁹ http://www.niemanlab.org/2009/06/google-news-experimenting-with-links-to-wikipedia-on-its-homepage/

edit, and manage content. Wikipedia's homepage, current events page, in the news templates, and other highly-valued articles were updated to point to a single breaking news article, this article would inherit their authority and quickly rise to the top of search rankings, creating a virtuous feedback loop which would drive more traffic, contributors, updates, and content to the article, effectively making it the clearinghouse on the web for information about an event. In contrast, WikiNews invited users to replicate journalism's ill-adapted norm of creating multiple and parallel accounts of events, diluting attention and focus among readers seeking up-to-date information, contributors seeking collaborators with which to work, algorithms assigning importance and relevance for the larger web audience, and administrators trying to feature high-quality work.

7. DISCUSSION

These cases provide a context to examine how the divide between the authority of encyclopedic ideals and the rapidity of journalistic practice was negotiated. The saga of the 9/11 Memorial Wiki, like the attempts by encyclopedists throughout history to balance epistemic authority with contemporary relevance and accuracy [19, 25], is illustrative of the perils of classification work. The wiki provided a venue that allowed users with disparate motivations, dispositions, and membership in communities of practice to cooperate in documenting an event of profound historical importance and cultural trauma. However this cooperation proceeded without an agreement about the role or boundary of this new type of encyclopedia and the wiki itself became a boundary object onto which various communities of practice projected distinct categories and meanings: current eventsrelated content was unnatural to participants attempting to reproduce the "traditional" encyclopedic genre, 9/11 remembrance content was unnatural to participants attempting to reproduce objectivity and neutrality emblematic of either journalistic or encyclopedic accounts, and the unnatural lack of material limitations in the technology itself validated attempts from participants like "The Cunctator" to include detailed accounts and memorials of the event.

Conflicts over whether Wikipedia as an encyclopedia would include only historical events or would reflect new knowledge about on-going events illustrate how the development of new technologies permitting the rapid authorship and dissemination of new content demanded a re-appraisal of encyclopedic identity. The attempts to shoehorn norms and practices of journalism into an open peer-production system for news replicated profound limitations in the practice of traditional journalism while ignoring new ways that news was being consumed. As Bowker and Star argue [2]:

"...all information systems are necessarily suffused with ethical and political values, modulated by local administrative procedures. These systems are active creators of categories in the world as well as simulators of existing categories."

The negotiation of boundaries over the types of content to be included, debates over approaches to removing content violating these boundaries, and the very acceptance of current events-related content into the encyclopedia are examples of the messy and contingent work obscured and forgotten as this online and perpetually up-to-date encyclopedia has become part of the new "natural" order of things. However, the

actions necessary for maintaining and recreating the meaning of this new and highly flexible way of knowledge collaboration required reconciling distinct, even opposing, norms and practices [2]. On one hand, the wiki provided a forum to collaborate and rapidly disseminate up-to-date knowledge while providing rich contextual details and background. This required reconciling encyclopedic authority with journalistic timeliness, distinct traditions that nevertheless share complimentary ideologies and parallel historical trajectories. On the other hand, the wiki provided a commons to mediate, store, and share the outpouring of emotion, collective sensemaking, and other deeply-ingrained social behavior following traumatic events [7]. This required reconciling encyclopedism with commemoration, also distinct traditions but lacking the ideological alignment and parallel history of the former. It is then unsurprising that the domain with the more tenuous relationship with encyclopedism was the first discarded; Wikipedians naturalized the alignment of encyclopedism with journalistic objectivity more readily than they did with "journalistic" commemoration.

This alignment was enacted through various types of work such as Gieryn's "boundary work" [13]. The simultaneous imperatives for authority and relevance required Wikipedia editors to engage in boundary work to expand the possibilities of encyclopedic coverage to include and promote current events, exclude content and events which are insufficiently encyclopedic, and defend these choices by normalizing the type and scope of content to be included through formal policies and regulations. Early Wikipedians, seeing the traffic and contributions for 9/11-related content, saw the potential to expand the scope of encyclopedic action. However, this expansion introduced anomalies to expected categories such like "non-notable victim", "unencyclopedic memorial", or "precedent for future catastrophes" which created problematic residual categories [2]. Managing these anomalies arising from the expansion of the encyclopedia into current events coverage required Wikipedians to converge on some shared meanings about the types of content which warrant inclusion, exclude other alternative interpretations, and legitimize these distinctions by institutionalizing and adopting policies enumerating appropriate types of content. But the existence of these types of work influenced the types of knowledge that are preserved and valued also suggests the need to maintain a critical eye towards socio-technical systems as this type of boundary work is clearly non-neutral and advances the views and interests of some to the detriment of others [24].

WikiNews also provides an essential counter-factual lest technologically determinist or ahistorical thinking override a critical appraisal of why Wikipedia succeeded in adapting peer production to news production. Significantly, both projects employed fundamentally the same technical infrastructures of MediaWiki software and received similar operational and promotional support from the Wikimedia Foundation. However, the creators of WikiNews attempted to proscribe a distinct style of content and collaboration emulating professional Western journalism's periodic and parallel narratives rather than an on-going and coherent style found on Wikipedia. Moreover, the model for developing this content required a formal vetting process from other crede ntialed users and restricting major revisions that diverged significantly from Wikipedia's more lassiez-faire attitude for covering breaking news events by incorporating most users' changes to the main articles. These sociallyconstructed design decisions focusing on expanding the practice of news production however failed to consider the ways news consumption were being re-shaped by new forms of web use such as search engines and other forms of social media challenging the forms of journalism WikiNews sought to emulate.

CONCLUSION 8.

Wikipedia's coverage of current events is not only ordinary and routine, but it has inverted our expectations about the timeliness and relevance of reference works. Where it had previously been natural to assume contemporary reference works would not reflect late-breaking news events, it has instead become unnatural to find a Wikipedia article or perhaps contemporary reference works of any kind—to be out-of-date because it highlights the circumstances of its production and the limitations of alternative forms of knowledge dissemination. Moreover, the 9/11 Memorial Wiki and WikiNews projects illuminate the challenges online communities face in acquiring a critical user base, developing a coherent identity, and sustaining engagement. The case of Wikipedia's embrace then rejection of 9/11 Memorial Wiki has important implications for archivists, historians, and media theorists as it vividly highlights the dynamics by which socio-technical systems can collapse prevailing boundaries as well as the ephemerality of social tastes willing to maintain these socio-technical systems. This suggests that digital and previously popular knowledge artifacts no more durable than the paper they replace. Moreover, Wikipedia's transition into newswork is illustrative of how new forms of organization enabled by socio-technical systems like Wikipedia are being shaped by and can potentially shape traditional professional identities confronting audiences demanding participation in the production of the news.

9. **ACKNOWLEDGMENTS**

I would like to thank Joe Reagle, Dariusz Jemielniak, Benjamin Mako Hill, Jeff Loveland, Justin Reich, Aaron Shaw, Denis Tenen for their feedback on earlier drafts of this paper.

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