COMPOSING(MEDIA) =
COMPOSING(EMBODIMENT)

bodies, technologies, writing, the teaching of writing

Edited by

KRISTIN L. AROLA
ANNE FRANCES WYSOCKI

UTAH STATE UNIVERSITY PRESS
Logan, Utah
2012
HOW BILLIE JEAN KING BECAME THE CENTER OF THE UNIVERSE

David Parry

While I do not want to paint too broad a picture, I think it is safe to say that the early reception of Wikipedia by the academic community was characterized by initial dismissal, followed by open disdain. A few exceptions notwithstanding, many academics and institutions ignored the early stages of its development, maintaining a healthy skepticism of an encyclopedia that "anyone could edit." But as Wikipedia continued to develop, becoming one of the web’s most trafficked sites, so grew the attacks on the value of an internet encyclopedia edited and composed by volunteers. As it became clear that Wikipedia was developing into a central—not in places primary—place where students would turn to gather information, academics and institutions responded with increasingly alarmed rhetoric, leading at times to the outright banning of Wikipedia by professors and institutions. But, as Wikipedia has matured and developed into one of the "backbone" sites that organize the internet, the academic climate surrounding it has moved from heavy resistance to a perhaps begrudging acceptance, where Wikipedia itself has become an object of serious academic inquiry.

Much of the early research and commentary on Wikipedia has attempted to compare it to print encyclopedias by measuring traditional criteria, for example article length, number of entries, and method of composition (multiple authors versus a single accredited expert). But, these conventional analytic methods have failed to capture the unique nature of this digital encyclopedia. Accordingly, analysis has begun to switch from measuring the size of any one node to measuring its relation to other nodes in the network.

1. This response has struck me as particularly ridiculous. The propriety of students using Wikipedia as a source and citing it in papers should have nothing to do with its stature as an internet encyclopedia, but whether its status as a secondary source. Students should not more cite Wikipedia than they should Britannica. Rather, the issue here is the appropriateness of an encyclopedia as a source, rather than the particular instance of Wikipedia.

2. The somewhat famous study in Nature serves here as the pre-eminent example. In December of 2005 researchers found in forty years’ worth of articles relatively little difference between them in terms of quality. These articles gained the most attention on the journal, entailed the legitimacy of the study.

Recently, Stephen Dolan, a student at Trinity College in Dublin, authored a computer program to measure the network size of Wikipedia. Unlike prior network analytic tools, Dolan’s program did not measure the distance between the two furthest Wikipedia articles (in order to find the articles which constitute the endpoints and thus determine the project scope). Instead, Dolan’s program looked for which articles are most "central" to Wikipedia. It sought articles from which it is easiest to reach the others. In other words, Dolan was looking to determine which articles served as the most robust hubs, rather than looking to measure the scope of the entire network of articles. One can think of Dolan’s approach as the “six degrees of Wikipedia.” If you will, modeled after the “six degrees of Kevin Bacon” game in which players attempt to connect Kevin Bacon to any other actor or actress. In other words, the program tracked the fewest number of clicks required to get to any other article. For example, it takes an average of 3.98 clicks to get from Kevin Bacon to any other article on Wikipedia (not just any other Hollywood personality).

Not surprisingly, high on Dolan’s list were the most and category lists—entries such as the year 2007, which has links to all the major events that occurred during that calendar year. These liststyle entries, lists of dates, or even focused organizational lists such as “Presidents of the United States” dominate the top of the list of entries with the lowest average click count. But for the sake of intellectual exploration and analysis of networked encyclopedias, let us remove these articles that catalog and index instead look at what “real articles” are actually at the center.

3. Dolan’s research can be accessed online via a site he maintains: <http://www.name. role.ca/~on/ukw/>. This site contains not only an explanation of his work (the code is used) but also allows one to download the entire list, as well as input two entries to find the shortest path between the two.

4. At least this number was accurate as of the time Dolan’s program ran. One of the difficulties in writing about Wikipedia is distinguishing which Wikipedia one is speaking about. Should all contributions of Wikipedia be considered part of the project (e.g. Wikipedia “said vs. Wikipedia says?”) The convention is to note the current edition of an article as currently articulating such a position, as in “Azizah says.” It should be mentioned that the encyclopedia which one is reflecting is a relatively static object, yet in the case of Wikipedia, the continuity of existence presumably provided by the stability of print and authentication is absent.

5. Notably, not all of these high-ranking articles are years, dates, or ones we might think of as being central hubs. The list is populated by entries such as “D-Day in 2004,” “500,” “List of treasures,” “List of the first female holders of political offices,” but also other seemingly more trivial lists such as “List of Q episodes (B series),” “List of C-130 Hercules grades,” “List of DMAC Version,” and “Monarch Territories.”

6. In some regard, the dominance of lists is telling, indicating that catalogs and indexes serve central roles in network community, and while indexes in the online encyclopedias are crucial for locating desired information, in the case of the networked work, the location function is served by the search bar. These indexing articles serve a different organizational role, helping to manage the signal-to-noise ratio in a markedly different way than in the index encyclopedias.
Highest on this focused list is the United Kingdom. Given Wikipedia's Western cultural bias, and that this main "United Kingdom" article links to extensive historical entries throughout different periods, its position as a hub in the network is predictable. In the third position on the list is the United States, for similar reasons: the United States article is not surprisingly, well-developed and links to a number of other equally developed articles about the US. Furthermore, given the particular American cultural bias of Wikipedia, the only thing that is surprising is that it is not higher (although considering the relative short history of the United States, the article's subordinate position to the United Kingdom entry is predictable). The difference between the first and third positions is ultimately not that large, as the average click number for the main United Kingdom entry is 3.67 and that of the US is only slightly higher at 3.69. What is surprising, however, and noticeably different from the other top entries, is the second entry in the list, one with a click count of 3.68. Given the title of this article, the reader undoubtedly would have guessed that this privileged second position is held by Billie Jean King. Billie Jean King outranks major historical figures such as Gandhi, or Franklin Delano Roosevelt, manifesting a lower click count even than other, perhaps more prominent, popular culture figures such as Kevin Bacon or Madonna.

Upon close examination, the Wikipedia article on Billie Jean King one discovers a thoroughly written entry, covering her personal life, tennis career with full statistics, information about the famous "Battle of the Sexes," her sexual orientation, and, indeed, even a reference to the fact that "King appeared as a judge on Law & Order: one of her favorite television shows," on April 27, 2007. In many respects this article fulfills the Wikipedia vision of an ideal entry: "well-written, balanced, neutral, and encyclopedia, containing comprehensive, notable, verifiable knowledge." But, at 17,000 words, the article surpasses mere encyclopedic quality and borders on a monograph. Jesus only gets 11,000 words and Shakespeare less than 7,000.

In this respect we might say that Wikipedia, as illustrated here by the case of Billie Jean King, reproduces the impulses laid out by the Enlightenment Encyclopedists. The Wikipedia article is an attempt to capture all of the relevant and important information about one subject, to record and present it for others to consult—the "complete" picture of Billie Jean King in a transparent readable format. And, further, despite Wikipedia's presentation in the digital medium, it is to a large extent conservative archival form, at least on the level of presentation and governing ideology (if not on the level of composition), one might easily recognize as informed by an enlightenment tradition of archivization. Wikipedia in this respect is a librecentric archive. It embodies ideologies present within the codex print form—think libraries and encyclopedias—but not necessarily intrinsic to analog formats. Librecentricism, however, is not comterminous or even necessarily correlated to print material structures; rather it is an outgrowth of a specific metaphysical perspective towards the ability to capture, fix, and fully present knowledge. What librecentricism culturally accomplishes, or at least tries to stand in as a metaphor for, is a certain stability of knowledge. One sees this most prominently in the physical form of the book: a beginning, middle, and end, a linear arrangement that when traversed, promises to deliver on a specific subject. Whether that knowledge is a specified subject matter, such as a non-fiction encyclopedia entry on Victorian England, or a fictional narrative, Pride and Prejudice, is immaterial. In both cases, the idea is that by consuming all of the pages in linear order, one acquires the complete picture of the information contained within the specified pages. Movement from page to page produces a sense of progress wherein the reader is presented with causal links leading to the final eutological page that delivers the complete picture, wherein the book is made complete, knowledge transmission guaranteed. Both the encyclopedia and the library reinforce this librecentric thinking, gathering together in one place everything of relevance to saturate the context and provide an end, ensuring stability. What I want to emphasize here is that to understand the "book" as an archival format (and by extension the encyclopedia and library associated with this format), we need to separate the ideological imports of this structure from the simply material ones. What has been called the Gutenberg Galaxy is more correctly, as Tom Pettitt points out, the Gutenberg Parenthesis. Within this parenthesis, certain ideologies and prejudices were associated with the idea of archivization, ones which transferred to the book, but which are not dependent on its material structure. We can see how this is the case from the way in which the word book circulates separate from the actual physical existence of a particular volume or set of printed pages bound together by cardboard: the Book of Love, the Book of Nature, to throw the "book" at someone. In each of these phrases "book" represents the idea of a completeness of knowledge—a metaphor for a type of communication and knowledge presentation rather than its material form—in other words, the entirety of a certain matter codified into physical form for the sake of knowledge transmission. And, in this sense, the Wikipedia article on Billie Jean King is the "book" on Billie Jean King.

Despite the fact that most writing takes place first in the digital, that the first material support is so often the screen and pixel, this "new" digital age
is still haunted by, determined by, the librocentric trappings of the book. Our writing machines and archival formats still respect this figure of the book. Despite claims of the liberating potential of hypertext or the internet, there is little to suggest that these structures of archivization have escaped this infatuation with the book as the ideal format for knowledge transmission. (The Billie Jean King article is just one such example, where a digital archive serves as a resource to collect “all of the essential information” about a specific subject matter.) So much of what is written on digital archivization, as Derrida notes, recreates the temptation that is figured by the World Wide Web as the ubiquitious Book finally reconstituted, the book of God, the great book of nature, or the World Book, finally achieved in its ontological dream, even though what it does is to repeat the end of that book as awesome. (13)

Despite the idea that digital support structures supposedly free the archival formats from the restrictions of the analog code forms, a digital networked structure such as Wikipedia is valued precisely because it fulfills librocentric criteria. That is, rather than constitute new possibilities for archivization and knowledge transmission, these new forms adopt the criteria of the prior, staking their worth not on their supposed newness or revolutionary form, but rather as the logical evolution of their predecessor.

The digital seems to overcome the limiting paradox of physical archives: the librocentric mandate to simultaneously gather and disperse. And, along these lines, it becomes easy to see how the internet is seen as the logical progression of the librocentric archive; the digital is even more book than the book. In other words, the digital networked archive is not something radically new that threatens to overturn our prior knowledge formats but something that, at least up until now, very much fits within the criteria and values of knowledge formation and dissemination laid out by the librocentric archive. In this respect the digital archive is not that which brings about the end of the book. It is just the logical extension of librocentricism.

Digital archivization, especially with respect to Wikipedia, has yet to escape these librocentric criteria. It attempts to fulfill this Enlightenment vision, saturating context, gathering all of human knowledge in one location to preserve meaning without the threat of dispersal. This reproduction of librocentric values in the digital archive would not be limited to Wikipedia, one could also include other projects such as the Hurricane Katrina Digital Memory Bank, or the William Blake Archive, both of which attempt to preserve “all of the content surrounding specific historical events or individuals, to serve as the definitive account and repository for these matters. In this regard, those who critique Wikipedia, seeing it either as the utopic fulfillment of the Enlightenment project of universal knowledge or the dystopic declination of the pursuit of truth, are not arguing about the value or role of a digital archive, but merely disagreeing about the extent to which something like Wikipedia fulfills this role. Andrew Keen and Andrew Lih are ideologically closer than either would like to admit. Wikipedia is little more than a fulfillment of the logic of librocentric thinking, the final exochalological promise of the book of the world. Whereas books are limited by space, digital archives are not; whereas books are costly to produce and transmit, digital archives are relatively cheap; whereas a book can be read by only one person at a time, the digital archive provides access to multiple readers; whereas a book is threatened by its material form (it can be lost, damaged, burnt), the digital archive resists any localized environmental threat. Whereas in a library the text is limited to a singular dispersal (in the sense that only one person can check out a work at any given time), digital works seem to transcend this physical limitation, allowing for dispersal to an infinite number of viewers without undermining their being gathered at a particular locale. Not limited by space, and seemingly free from physical danger, however, Wikipedia fulfills the vision of the library of Alexandria, sans threat of fire. As Jerome McGann observes in Radiant Textualities, “The library as a model underlying the invention of the internet resists the way of distinguishing digital and paper based textualities” (25). Indeed Jimmy Wales, the founder of Wikipedia, is fond of saying that he is “very much an Enlightenment kind of guy,” and he consistently articulates his vision of Wikipedia as an instrument for fulfilling the Enlightenment project of universal knowledge. One of Wikipedia’s goals seems to be to fulfill the librocentric goal of the encyclopedia in a way that Britannica or any other codex work could never do to collect in one location all of human knowledge for universal dissemination.

Billie Jean’s inclusion then seems entirely normal, even if her entry is longer than average. For what use would an encyclopedia be if it did not contain information on her tennis career and political, public, and private life? Furthermore, this is where critics of Wikipedia fall short in their

8. As Derrida explains, it is this paradox that structures the code archive, and even the book itself. A library, for example, on the one hand must operate by collecting books in one location, gathering them together to preserve them. But it has value only because individuals can consult the archive by regathering what the library has preserved; removing the book from the shelf, checking it out. And then the library always gathers to prevent the threat of dispersal, the very thing it was designed to enhance.

9. Andrew Keen made a name for himself as a “digital carcinogen” when he wrote The Cult of the Amateur, a book that claims that the internet destroys culture. Throughout the book Wikipedia figures as a prominent example. Andrew Lih, the author of The Wikipedia Revolution, defends Wikipedia as an example of the positive changes the web can bring to knowledge archivization and dissemination.
critique when referring to the “List of 500 Pokemon Characters.” It might seem odd that an encyclopedia would contain extensive lists of characters from a fictional universe. Yet, clearly Pokemon represents part of human knowledge, and if the goal of the encyclopedia is to collect “all of human knowledge,” then it must necessarily contain reference not only to the “Knights of the Round Table” but “Pokemon Fire Red” and “Professor Oak” as well. While any source that contains an article on chessboxing—three clicks away from Billie Jean King and an article which, although only 750 words in length, is still longer than the entry for Amos Tutuola, which is 500 words and three clicks away from Billie Jean King—is an encyclopedia that is clearly an ideological reference, it is hard to discount Wikipedia because it includes articles, or places certain ones at positions of power relative to others, as hubs in the network (as is the case with Billie Jean King). What Wikipedia is actually chronicling is which places are sites of human knowledge, what articles are of interest to the public that uses them.

Wikipedia’s impetus is still informed by the Enlightenment ideal of producing the “book of the world” that explains the entirety of human knowledge and that would be used by a fully engaged literate public. Wikipedia claims to “acquire knowledge,” and “share knowledge,” in a “fair and balanced” manner. But perhaps the clearest instance of how Wikipedia sees itself as the fulfillment of Enlightenment ideals is in what it calls the neutral point of view or NPOV: “The ideal Wikipedia article is balanced, neutral, and encyclopedic.” As Roy Rosenzweig has aptly articulated, Wikipedia attempts to mimic the neutral rhetorical tone of the codex encyclopedia. In fact, the “achilles heel” of Wikipedia, its drab writing, is as much an effect of being composed by several authors as an effect of a composition that favors neutrality—privileging the presentation of facts over interpretation. Indeed, in some sense Wikipedia is simply the logic of data collection—encyclopedic universal knowledge—carried to the extreme: an attempt to present just the facts, and all of them. Not surprisingly one sees this reflected within the articles that often read rhetorically as lists of fact, which is why Wikipedia seems to excel in the scientific entries over those in the humanities. Because of the dominance of the NPOV and the goal of presenting facts, Wikipedia articles often tend towards ameliorating narrative logic, and they often slide towards presenting information with simple sentence structures and in an outline format. But this is simply the logical outcome of the Enlightenment quest to create the world book, an absolutely transparent collection of facts. In this sense, I would suggest that Wikipedia is not a radical archival structure, some alien force, but is rather the monstrous progeny of the librescoptic archive.

Perhaps one could object here and argue that poststructuralism has done much to call into question the Enlightenment ideologies pursued in the librescoptic archive by demonstrating how these governing ideologies have always been a fiction. I agree that these theories have done much to expose the inadequacy of the idea of the book as complete, whole, guaranteed communication. Yet to a large extent these governing fictions of librescopticism still inform the pursuit, collection, and archivization of knowledge in the digital networked era, and in this respect we have done little to escape the Gutenberg parenthesis. We have expanded on its principles, not overthrown them altogether. And so for many of those who critique Wikipedia (both those who see its utopian possibilities and those who see its dystopic qualities), its value comes precisely from the way in which it fulfills the hope of the Enlightenment codes encyclopedia by capturing and preserving all of human knowledge, making it freely available to all those who have access to the internet.

But Wikipedia is not entirely a librescoptic archive. Indeed, there are significant ways in which it breaks with prior archival formats. And it is by paying attention to the ways in which Wikipedia differs that we gain insight not only into how it is that Billie Jean King came to be at the center of the universe, but also how digital networked archives manifest a new archival format. Crucial in this analysis is tracking how relations develop not along the traditional criteria of an article’s worth (inclusion in the work, final presentation, number of words), but around links and network influence. Now in one respect, this is nothing particularly new, for encyclopedias have always contained internal links as a way to organize and signify relations between articles—the “see also” within an entry, or even the indexes which serve as giant lists of relevant material. But the link in the digital networked space has become the central organizing principle, not the supplemental feature added to aid in navigation.

In Topics of Opportunity, Samuel Weber makes the rather provocative, and I think useful, claim that when we turn to analyzing networks, it is not the net that matters but rather the work, as a great deal of “work” goes into the process of turning a net into a network. While we could choose to focus on the nodes in the net, the sites where content is held or made manifest, the more important question seems to be how one adds work into those nodes, turning a net into a network. In modernity, work is more closely associated with oeuvre, the notion of a deliberately created unit (work is thus used as a noun, as in a piece of art work, or a specific article entry in an encyclopedia, the product of the aim and intent of one individual. In
Thus I would suggest that we need to understand Wikipedia as a technical organism rather than a static archive. Consider, for instance, that every second, Wikipedia is updated between two and three times. This means that while particular articles might be relatively stable, the whole of Wikipedia is in a constant state of flux. This feature of Wikipedia is aptly demonstrated by "time lapse" screen captures of specific Wikipedia articles that chronicle the evolution of a particular entry; examples are the heavy metal umlaut video, which shows how this seeming piece of minutiae developed into a well-developed article, or the video of the Wikipedia entry of the London bombings, which demonstrates how that particular article became a repository of information of this event, updated with both true and false information faster than any individual journalist/author.

More importantly, consider how Wikipedia is now monitored by hundreds of volunteers who spend hundreds of hours maintaining it against the onslaught of new information, or attempts to spam, graffiti or otherwise maliciously alter its contents, a process further complicated by the fact that there are now "bots," computer programs that run throughout Wikipedia, autocorrecting, formatting, and deleting information added to particular entries in conjunction and negotiation with human users. This analysis increases in complexity and importance as we realize how prevalent Wikipedia is, how much it serves as one of the organizational backbones of the internet, and how increasingly other institutions and organizations are using wikis to archive material.

Ultimately, I think we miss the point of digital networked archival structures like Wikipedia if we analyze the object alone, treating it as a text to be read that would be subject to the same hermeneutic analysis as we scholars leverage against other static works. Wikipedia is not a static object that is written, a closed object that one consults. It is instead more analogous to a living organism that is maintained and kept healthy. Indeed, those who contribute to Wikipedia often speak of their role in such "caretaker" terms. The author function of a particular article or bit of text is replaced by a curatorial function in which an encyclopedia serves as a place where knowledge is communally stored, produced, and accessed, requiring constant observation and maintenance. For Wikipedia is nothing without the community of users who work on it, keep on working on it. One can copy the entire data structure that comprises the text—it is relatively small (135 GB give or take)—and port it to anywhere (the license allows this). Yet, you would not be porting Wikipedia, not only because there is a great deal of network capital tied to the particular internet address associated with Wikipedia, but also and more importantly because you would not be porting the community of users. Here is where Wikipedia substantially differs from prior archival models that have both a longer and a shorter lifespan than it does. These spans
are shorter in the sense that the information in a codex volume quickly becomes outdated, whereas Wikipedia is constantly kept up to date. But this "up to dateness" also means the lifespan of Wikipedia is shorter, connected to the community; if the community disappears and ceases to maintain the archive, the archive's value is rendered null. Wikipedia's archival format does not fix the knowledge it presents; while print encyclopedias strive to produce a finished work, Wikipedia is not only "open" in the sense of allowing outsiders to edit, but "open" in the sense that its material is always open to future discursive productions, to a future that is not controlled, an openness that is a threat to its very existence. We should probably think of an openness that is a threat to its very existence. We should probably think of Wikipedia and its archival cousin as continually maintained processes rather than final products. This view is a substantial shift from the libracentric prejudice that governs the Gutenberg Galaxy and still to a large part informs current thinking in the humanities.

Rather than the case of the codex encyclopedia presenting information as "truth," Wikipedia preserves the discursive formation of the article, where as I indicated, the standard for inclusion is not "truth" but verifiability. That is, can the particular claims he linked to, connected to, other places where those claims are made? And although the previously stated goals of Wikipedia seem to mimic the libracentric—that is, collecting in one place the transparent truth about subjects—this network approach shows how this goal is already, from the beginning, impossible: for "truth" is subject to particular structures of power, some democratic—voting on what changes should take place—and others not—the intervention of an administrator. Regardless, the formation of the archived information in Wikipedia is made part of the archive, and it is in this sense too that Wikipedia is more "open" than the prior codex model. The discursive practices that produce the analog archives often took place within the closed walls of the university, publisher, or library: what counted enough to appear as part of the archive, what was saved, if you will, was decided in a closed manner. In the case of Wikipedia such decisions are folded into the archive itself.

Each article page is the result of a discursive process that is preserved within the pages of the archive itself. Indeed, we are perhaps reading Wikipedia backwards, for unlike Britannica or other codex form encyclopedias, Wikipedia preserves not only its current iteration but all prior iterations. In this respect, if we only look at the current article on the Billie Jean King page, despite its rather thorough and lengthy nature, it is difficult to understand how it became the center, or at least number two, on the link ranking. The key to uncovering the peculiar network value of the Billie Jean King article is in looking at the discussions pages, the places where the discourse about the discursive production is recorded.

The more intriguing aspects of Wikipedia are stored on the discussion pages, where contributors argue, negotiate, and ponder about not only the content of any given article, but the particular wording used in it. Thus any particular entry is only a small, narrowly framed text representing the current formation of a much longer, more elaborate process. As Clay Shirky observes, a Wikipedia article "is the product not of collectivism but of unending argumentation. The articles grow not from harmonious thought but constant scrutiny and emulation" (139). This is precisely the case with the Billie Jean King article, where several editors heavily invested in having certain information about Billie Jean King displayed persistently argue about the scope of the article. Proposed cuts to text on either her tennis career, or her personal life, are met with resistance by editors determined to have those pieces of information included in the article. And although several suggestions have been made to resolve this conflict—for example, splitting the article into a main Billie Jean King article and a second Billie Jean King tennis career article—as of the writing of this article, no such agreement about dividing the entry has been met. (Such an action would, of course, lower the average click rating.)

Indeed, by reading the discussion page carefully, we can see how the Billie Jean King article become a locus of debate among different groups and editors. At the bottom of each Wikipedia article is a list of categories to which each entry belongs; one can think of these as the folkonomies users have created to help organize Wikipedia. For example, Abraham Lincoln contains links to 1890 births, presidents of the United States, Illinois lawyers, and even small pox survivors. In the case of Abraham Lincoln, his groups are relatively consistent, containing what we could describe at a high rate of "bonding capital" that ties together groups we might intuitively associate with each other. But in the case of Billie Jean King, her categories cut across groups, displaying a higher rate of what we could describe as "bridging capital": American feminists, 1943 births, living people, LGBT people from the United States, American vegetarians, American tennis players. Thus, while many would argue that Abraham Lincoln is a more important "historical" figure, Billie Jean King is more important (or at least the article is) in establishing connections between different knowledge clusters.

As long as we continue to evaluate Wikipedia with libracentric criteria, we will miss recognizing what is unique about this archival format. If we were only talking about Wikipedia here, the danger from ignoring these archival changes might be minimal, but Wikipedia is merely one node in the entire
network—granted, it is a large node, but it is still only one node. What Wikipedia offers us though is a particularly instructive place of critique from which to understand how this digital networked archive affords new possibilities for knowledge formation and architization. However, the future here is by no means guaranteed. Wikipedia, and its archival cousins, might grow increasingly bureaucratic and hierarchical, and indeed the recent history of Wikipedia suggests precisely this trend: an effort to pursue hierarchic goals at the expense of leaving the structure more open and organic. What is clear though is that as these digital networked archival formats grow in both size and influence, we will need to pay careful attention to the possible restructuring of values they bring.

5 INFORMATION CARTOGRAPHY

Visualizations of Internet Spatiality and Information Flows

Jason Farman

The term cyberspace has evoked the process of navigating and embodying the spatiality of the internet since the word was coined by William Gibson in his cyberpunk fiction. In spatial terms, cyberspace has also been understood as an emerging “frontier space” that users are able to construct freely to fit their particular needs. It is a space of exploration, of possibility, and of social connection on a global scale. While most internet users identify with the notion of “navigating” this space, the process by which this navigation occurs bears little resemblance to the ways we chart and move through material space. The physical world has historically navigated and understood the world around it by charting it with maps. In fact, maps have even defined the space at points (see, for example, Hartley’s discussion of the symbolic ownership of an area by an empire through designating it on a map). Instead, users navigate the internet typically using a web browser, search engines, and hyperlinks. One link leads to another, and the user is wandering the internet in a situationist-style derive with no clearly charted route or destination. Such a process of navigation is attributed to the massive tangle of links (attributed to another metaphor of the web).

This study aims to identify the possible uses of internet maps, what such visual representations might look like, and how they might serve the purpose of representing the inequalities present in the transmission of information on a global scale. Drawing from several internet maps with differing approaches to information visualization, this paper analyzes the problems facing the mapping of information flows and how internet cartography can address these problems through visualizing information not as raw data but as a lived social space experienced in a situated and embodied way. Ultimately, I demonstrate that the creation of an internet map must always account for the visual and data limitations of maps in general. (As Monmonier’s studies argue, all maps “lie”). As we seek to theorize what a useful user map might look like, we must address how users engage cyberspace on multiple levels and in diverse ways to create visualizations suited to their specific goals.