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Teaching with Wikis: Toward a Networked Pedagogy

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Abstract

Computers and writing scholarship is increasingly turning towards the network as a potential pedagogical model, one in which writing is intimately connected to its social contexts. The use of wikis in first-year composition classes can support this networked pedagogy. More specifically, due to unique features such as editability and detailed page histories, wikis can challenge a number of traditional pedagogical assumptions about the teaching of writing. This article shows how wikis can challenge assumptions in four categories of interest to composition studies: new media composition, collaborative writing, critical interaction, and online authority. The analysis demonstrates that wikis, while not automatically revolutionary to composition pedagogy, hold significant potential to help facilitate pedagogical changes.

Keywords: Wiki; Network; New media; Collaboration; Critical interaction; Authority

1. Introduction

For the past decade, the field of computers and writing has focused on literal and metaphoric networks as possible pedagogical models. Networks can socialize the writing process, readily providing real audiences for student writing and emphasizing the situatedness of each piece of rhetoric among a constellation of others. By viewing writing as a networked activity, students focus on the connectivity and complexity of rhetorical situations rather than understanding writing as the decontextualized product of a single, isolated worker. By viewing *teaching* as a networked activity, we focus on the collaborative nature of our professional work and on reciprocal relationships with our students. Given these apparent benefits, our hopes for composition are increasingly turning towards the network. Rice (2006) summarized this direction succinctly: Asking "What should college English be?" Rice answered, simply, "The network" (p. 133).

Our increasing focus on networks coincides with a growth in the pedagogical technologies that support such interactions. In growing numbers, rhetoric and composition teachers are using blogs, listservs, discussion boards, and web sites. Simultaneously, we are providing

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critical rationales and frameworks for the incorporation of these technologies in teaching, explaining how and why to use networked technology in the composition classroom (see, for example, Barton, 2005; Lunsford, 2006; Wickliff & Yancey, 2001). Fundamentally, these pieces ask how, or whether, networked technologies can help us teach more effectively. A second approach to the study of technology in the classroom is to focus on the challenges that new technologies present to established pedagogical methods (see, for example, DeWitt & Dickson, 2003; Eldred & Toner, 2003; Moxley & Meehan, 2007). This type of work encourages teachers to reexamine and redefine their goals for the classroom, asking and demonstrating how established teaching practices can be stretched and strained with the introduction of new technological practices. Though there is clear overlap between these two approaches to researching classroom technologies, this article primarily participates in the second. Like Eldred & Toner (2003), DeWitt & Dickson (2003), and Moxley & Meehan (2007), I begin with the premise that new technologies challenge, often in productive ways, long-held assumptions in the field of computers and writing. The increasing perception of a "networked" pedagogy as a productive possibility can and should encourage us to reexamine the goals and beliefs under which we operate, even as we discuss how new technologies may help meet those goals. Such reexamination gives us an opportunity to make visible, and subsequently reevaluate, the received wisdom of our field concerning the definition of writing, models of authorship, classroom authority, and more.

Wikis are a particularly productive site for this examination for a number of reasons. First, as a web-based technology they clearly participate in network culture. Wikis have steeply increased in popularity since their initial application as spaces in which computer programmers could collaboratively develop and share code. Now such web sites as Wikipedia and WikiHow have put the technology to a variety of literacy uses, developing massive, and popular, resources of collective information, aggregating copious amounts of text as well as a variety of multimedia elements. As Purdy (in press) observed, the online presence of Wikipedia is nearly inescapable (Wikipedia sites often appear first on Google searches for a wide range of issues) and serves as a testament to the growing popularity of wikis. Despite this popularity, academia often lags behind, both in its acceptance of resources such as Wikipedia and in its use of wiki software (see, for example, Cohen, 2007; Purdy, in press). Given the drastic break between popular network culture's acceptance of these online writing environments and academia's resistance to them, analyzing the challenges that wikis present to traditional methods of teaching promises to provide a constructive tension. This is particularly clear when we examine new modes of composition, which can broaden significantly in the new media environment provided by wikis, and when we explore the critical interaction that can occur in wiki communication between students.

A second reason wikis are a particularly helpful lens through which to re-view assumptions about composition is that they enact an ambitious version of hypertext. Unlike standard web pages or any other networked software, wikis provide a completely user-editable environment and thus align closely with early hopes for hypertext, which envisioned a space in which the author and reader roles could merge (see Johnson-Eilola & Selber, 1996). To this point, that vision has been relatively limited; readers "author" web pages in that they can follow a hypertext document's linking structure, but the structure and content are still ultimately provided by an author. Wikis can more thoroughly integrate the roles of author and reader.

Any reader of a wiki can create, change, or delete the content of a given page or network of pages. This is a significant adjustment of the rhetorical situation—one in which the division between a text's author and recipient begins to blur in literal and often dramatic ways – and thus calls into question traditional ideas about the authority of writers and readers. On wikis, collaborative authorship can be a given rather than an exception, and the relationship between participants in a wiki space can change accordingly.

Finally, although wikis combine a number of features and functionalities from technologies currently in use, they also stand alone in certain ways. The most notable of these unique characteristics, and the ones that I will return to throughout this paper, are editability and page histories. The editability of wiki pages is their primary marker of uniqueness, giving any user the same rights over content as any other user. Obviously, this can put wikis in a constant state of flux—they can be changed literally as often as they are read. Page histories push against the complicating tendency of editability, allowing users to see not only the most recent version of a document but also its development over time. Each of these features creates specific challenges to general pedagogical practices and can encourage teachers to reevaluate assumptions about composition.

Despite these indicators that wikis might illuminate certain aspects of composition pedagogy, and despite the increasing frequency of their use in composition classrooms, wikis have been largely absent from the published conversation in the computers and writing field. A quick glance at the WPA listserv shows that many teachers in rhetoric and composition currently use wikis to teach. Each inquiry sent out on the list about how to use a wiki, or even what one is, generates a flurry of listserv activity in which people exchange ideas and experiences with wikis. Mike Palmquist's mention of wikis in his 2003 piece on computer support for writing programs correctly predicted their increasing prevalence (p. 407); two years later, pieces by Barton (2005) and Garza & Hern (2005) gave more sustained attention to the function of wikis in composition. More recently, a flurry of articles on wikis as a forum for collaboration and debate (see, for example, Carr, Morrison, Cox, & Deacon, 2007; Laurinen & Marttunen, 2007; Moxley & Meehan, 2007; Schovczon, 2007) and public scholarship (see Purdy, in press) addressed increasingly more specific pedagogical and academic uses of wikis. Purdy explicitly mentioned that wikis have the potential to challenge existing assumptions in computers and writing, "putting into practice and extending writing studies' ideas about production, collaboration, authorship, and revision" (Purdy, in press). Yet to this date few of these pieces have described the broad range of potential pedagogical applications for wikis, and none have fleshed out a general approach to wiki use as a means of understanding assumptions about writing.

It is this idea of wikis as a challenge to traditional pedagogy that I take up in this article. More specifically, I use wikis as a lens through which to reexamine four areas that are of interest to current composition pedagogy: new media writing, collaboration, critical interaction, and online authority. In each of these sections, I ask not *whether* to use wikis in composition (a question that can only be answered with attention to specific pedagogical goals and institutional contexts) but rather *how* their use can complicate ideas within the field of computers and writing, simultaneously solving old problems and raising new ones. By looking carefully at wikis, their uses in teaching, and what they reveal about networked interaction, I highlight those assumptions that wikis make apparent. By looking at examples drawn from this community and from my own experience teaching with wikis, I show how and where wikis can challenge,

reify, and adjust the goals of composition teachers. Beginning with an introduction to wiki software and its possibilities for classroom use, I then turn to a rich description of teaching with wikis and how that teaching can illuminate the field of computers and writing.

2. What is a Wiki?

Simply put, wikis are user-editable web sites. By clicking the "edit" button on any wiki page, readers can add or delete text, create new pages and links, and otherwise modify the content of a single page or a network of pages. The important difference between a wiki and most web design platforms is that wiki users can edit from within any web browser—specialized knowledge of a web-composing program like Dreamweaver is not necessary for wiki use. Though early versions of wiki software required users to understand basic web programming, more recent wikis have made the process both more intuitive and more design-friendly. Modern wiki interfaces require knowledge of relatively few commands and no specialized software. Because they can be easily be customized by both teachers and students, wikis can be a potentially ideal venue for online writing assignments in composition courses.

Many readers who have not taught with wikis or used them personally are nonetheless familiar with Wikipedia, the (in)famous user-editable encyclopedia started by Jimmy Wales in 2001. As a free online encyclopedia with over two million articles in English, Wikipedia has become a central resource for Internet users. Unlike print encyclopedia entries, Wikipedia entries are not approved before they appear on the site and can be edited by any reader; the standard editing practices of Wikipedia are community-based and community-enforced. Some laud the encyclopedia for relying on this collective knowledge rather than the elitism of a board of editors, but institutions like Middlebury College, whose history department recently banned students from citing Wikipedia (Cohen, 2007), increasingly recognize Wikipedia, and wikis in general, as sources of potentially false information that is essentially only as good as the last person who edited it. The same doubt that the Middlebury history department has shown towards Wikipedia is a common attitude towards using wikis as class web sites or as the basis for academic research. Many English departments are understandably hesitant to officially sanction wiki use in composition classes, fearing that a disruption in classroom structures will automatically result from use of user-editable sites.

Despite this fear (or maybe because of it), an active community of wiki users has sprung up within rhetoric and composition, claiming that wikis enable the networked pedagogy that composition should be adopting. Purdy pointed toward this happy marriage between wikis and composition, explaining that "Wikipedia exemplifies many of the tenets of composition that the field purports to value," including collaboration and emphasis on continual revision and communal knowledge formation (Purdy, in press). Although wikis are not yet commonplace in English departments, they have a significant and growing presence. The home pages of English department wiki programs tend to reflect the optimism of the user community: the pages claim running a course wiki "allows readers and visitors to interact with each other in countless ways," presumably without the premeditated structure of a traditional classroom (Barton, 2007); they are "open to the entire University community" (TAMUCC Wiki, 2007); wikis enable students to "discover facts, interpret texts, author articles and essays, share ideas,

and improve their research and communication skills collectively" (SUNY Geneseo Wiki, 2006); and "to be able to edit at any time, to be able to make connections to others' work, to be able to arrange work in new ways, to be able to work with more than one version of a piece of writing" (More About Wikis, 2007). Along with this optimistic, democratic language, current wiki users often share a sense of exploration. The rationale behind Wayne State University's composition wiki, for example, "is to try and figure out *why* others find this type of writing space so attractive as well as to figure *how* we, too, can use it for new kinds of purposes" (More About Wikis, 2007). The rationales offered by these homepages indicate the variety of pedagogical goals that can be facilitated by wiki use.[1]

My personal experience with wikis began when my department instituted a pilot program for teaching with wikis. In this program, the first-year composition course adjusted many components of a traditional writing class to function on a wiki while maintaining the goals of teaching argumentative writing and critical thinking. The courses were networked together by numerous links as well as by a common syllabus (posted, of course, on a wiki). Course readings were all available online and linked directly from the wiki. Students posted responses and papers to the wiki, and in many cases teachers commented and graded on the wiki as well. Throughout the semester, it became clear that while there can be significant drawbacks to wiki-based teaching, it can also enable teachers to contrast, complement, and supplement more traditional pedagogical methods. The following sections outline some of the major interactions I see between wikis and composition pedagogy, loosely categorized into four areas: new media composition, collaborative writing, critical interaction, and online authority. These interactions highlight reasons to take wiki writing seriously.

3. Challenging assumptions

3.1. New media composition

The process of writing on a wiki can immediately challenge traditional definitions of writing. Creating a new wiki page might involve a multitude of composition practices, from the formalism of sentence and paragraph creation to web design and hypertext, possibly including other elements like images, audio, and video. Most rhetorically successful wiki pages use some combination of these types of composition to maintain interest and easy navigability. Although other technologies for online writing may offer similar inclusion of new media elements, wikis are different in at least two important ways. First, they require little specialized knowledge and no specialized software to manipulate multimedia elements—with wikis, new media composition can occur in any web browser. Second, a blank wiki page's complete lack of structure can highlight that the inclusion of multimedia elements is a rhetorical choice. Though some online spaces (such as blogs) allow users to easily post images and video, the structure of that

[1] It is likely that when this article appears in print a number of these sites will have fallen into disuse, or that their content will have changed significantly. This is clearly one of the consequences of analyzing highly editable, changeable texts like wikis. It also points to larger institutional contexts for wiki use—a number of university wiki programs are headed by specific individuals and may be abandoned if that individual leaves the university.

posting is generally quite limited to pre-existing frameworks. Many blogs have a format that encourages writers to post images, but that format may not allow users to radically change the design of a post or to include a variety of new media elements. The blankness of an empty wiki page can encourage writers to view everything they put in that space, including new media, as a rhetorical choice. Essentially, the technology can open writing to easy and rhetorically sensitive incorporation of new media elements.

The field of computers and writing has been gesturing toward such an expanded definition of writing for some time now (see, for example, Lunsford, 2006; Sorapure, 2006; Williams, 2001; Wysocki, Johnson-Eilola, Selfe, & Sirc, 2004; Yancey, 2004). As early as 1997, Lester Faigley observed an impending turn towards multimedia composition: "If we come back to our annual convention a decade from now and find that the essay is no longer on center stage, it will not mean the end of our discipline" (p. 40). Of course, a decade after Faigley's prediction our departments are still overwhelmingly concerned with essay genres, adding multimedia compositions to their syllabi hesitatingly if at all. Though wikis will not necessarily change this focus, they can allow teachers interested in challenging traditional definitions of writing to easily incorporate new media into the writing classroom—even in the context of traditional essay genres. Although the formatting choices of the paper essay are so ingrained as to be unconscious, composing the same essay in a wiki page may raise concerns about readability and audience response that encourage students to acknowledge the importance of media in conveying an idea. The mere act of composing an essay in a new, online space easily sparks discussion about the function of and possibilities for various design decisions.

Of course, as well as re-framing the composition process of traditional essays, wikis enable more blatantly multimedia assignments. Teachers could (for example) easily use wikis to enact Sirc's (2004) web-based "box text" assignment, in which students post a variety of multimedia items to a web site before explaining their connections and juxtaposition, or to compose Lunsford's (2006) Program in Writing and Rhetoric assignments that focus on the multimedia delivery of argument. Moreover, wikis could enable students to complete these projects without extensive knowledge of designated web programming software.

The possibilities provided by this flexibility can be illustrated by looking at the simple example of student wiki home pages, which often utilize multiple modes of communication. Many course wikis include separate home pages for each student to customize, posting his or her work and other information (as in a portfolio). Such home pages are composed with specific goals in mind—they attempt to present links and information clearly, to entertain the audience of teacher and classmates, and to introduce the readers to the student. Students rarely attempt to meet these goals with simple textual efforts; rather, they include images, design elements, and other hallmarks of new media composition to accomplish their goals. The significance of this flexible personalization is that students become more invested in their compositions and often pride themselves on creating and maintaining pages that are better able to represent them as individuals than paper journals or pre-formatted online writing spaces. Indeed, students in my classes have been able to construct their home pages as Payne (2005) wished students could within the CMS (course management system) environment of programs such as Blackboard:

> by submitting URLs that counter . . . dominant cultural rhetorics with subversive and alternative discourses, by uploading pictures that represent their identities in more complex ways than a standardized corporate headshot (say, pictures of their surrounding physical home spaces), and by disrupting the 'about me' genre encouraged by Blackboard. (p. 497)

The fact that wiki pages do not begin with a determined template leaves them open for such uses, unlike the more structured environment of blogs and CMS personal pages that tend to limit composition to filling out a series of text boxes.

Although students writing on wikis are certainly influenced by the expectations of the structured environments with which they are already familiar, the flexibility of the wiki can encourage students to depart from such expectations. The ability to easily include multimedia elements using just a web browser is a significant affordance of wikis, one that holds great potential to stretch current definitions of writing. Creating wiki home pages, essays, and other assignments as new media texts can lead students to a more interactive participation with their writing, using a variety of media to accomplish rhetorical goals.

3.2. Collaborative writing

What little has been written about wikis in computers and writing scholarship has dealt primarily with the technology's collaborative capabilities (see, for example, Barton, 2005; Carr et al., 2007; Garza & Hern, 2005; Moxley & Meehan, 2007). Due to their user-editable nature, wikis carry with them notions of authorship that confound composition's tendency to insist on, and assume, a single author. Although some wiki services can be customized to limit editing of individual pages, such limits work against the fundamental openness of the software. Barton (2004) referred to this limiting as a departure from "pure wikis," which do not limit editing capabilities and, therefore, do not limit authorship. On a pure wiki, each reader/writer has the same editing privileges and, thus, the same authority over the text. Moreover, each reader/writer has access to the same current version and the same history of edited versions, overcoming a significant material difficulty that faces productive collaboration outside a wiki environment. Given these features, wikis can challenge the practice of single authorship and help overcome the spatial and temporal hurdles to productive collaborative writing.

The challenge wikis make to the single author model is particularly illuminating because the field has repeatedly recognized its own limitations with regard to single authorship but has yet to shift significantly toward a more fluid model. As early as 1990, Lisa Ede and Andrea Lunsford argued that collaboration has enormous and largely untapped potential to support the teaching of rhetoric as a social process. Ede and Lunsford observed that English studies generally accepts collaboration as a beneficial activity "in every stage of the writing process except for drafting" (p. 9), and they traced this tendency to the ideal of the individual author who writes a personal and monological text.

The tendency to idealize the individual author is inevitably encouraged by writing technologies that have not always been conducive to collaboration. The difficulty of exchanging and merging drafts using handwritten copies, word processors, or email has prevented the easy back-and-forth within the text that most collaborative projects require in order to truly integrate the words of more than one author in the drafting phase. Wikis can enhance this process significantly. The most current working version of the document is always posted on the site, and

the history of recent versions of a page is available to all collaborators through version links.[2] Additionally, the easy creation of new pages and links can allow for conversations between collaborators to grow around the central document and explicitly address difficulties in the collaborative process. In a discussion of wiki use in a political science course, Carr et al. (2007) described this aspect of wikis as "transparency," one of the ways in which classes "negotiate" collaborative writing (p. 270). Because each version of the collaboration is transparent to collaborators and teachers through page history and through explicit discussion of the process, wikis facilitate easy tracing of collaborative development and, ultimately, meta-commentary about the nature of collaboration, both on- and offline. Carr et al. explained:

> The transparency, openness ... and ease of use of wikis constitute powerful affordances for collaborative process writing. At the simplest level, transparency of the writing process allows for timely intervention by educators and peers to ensure that students receive useful feedback and guidance at early and intermediate stages in the process. At a deeper level, this transparency reveals endemic challenges in facilitating collaborative process writing that are not unique to online interventions. (p. 280)

Essentially, the transparency of the technology encourages students to understand and reflect upon their collaborative activity, and reflection is an important part of negotiating collaborative work. And as Carr et al. noted, the transparency of working on wikis can lead students to approach collaboration more reflectively even when they are writing offline.

Barton further described the reflection that surrounds wiki collaboration in "The Future of Rational-Critical Debate in Online Public Spheres" (2005). He argued that wikis present writing not as a product but "as a process of rational-critical debate towards a specific goal" (p. 187) and ultimately as the ideal public sphere: "Using wikis, a community of rational-critical debaters could develop documents that would represent their truly collective interests; any private interests would quickly be deleted by the vigilance of other wiki participants" (p. 187). Although Barton's language here may be overly optimistic about the possibility for wikis to create a space free from social constraint, he perceptively pointed to one of the most exciting possibilities for wiki use, enabling teachers to answer Ede & Lunsford's (1990) call to experiment with collaboration in all phases of the writing process. Thus, as a transparent means of collaboration, wikis can encourage the "real learning" that "occurs in interaction" between students (p. 121).

Wikis can be so effective at overcoming spatial and temporal difficulties with collaborative writing that a number of them are being used for large-scale collaborative projects over the course of years. Wikipedia is the most visible example of such collaboration, but on a more local scale composition programs such as the one at Bemidji State use wikis to facilitate collaboration between successive versions of a class. At Bemidji State, the WritingTheWikiProject serves as a continuous database collaboratively developed by students in an advanced English class informally called "Blogs and Wikis." The project's main page describes a space that "gives the classes that pass through the BlogsAndWikis wiki a shared task and point of focus,

[2] Google's web-based suite of office software applications, Google Docs, similarly facilitates collaboration. Users can work on a document simultaneously, and unlike some wikis, Google Docs has a very familiar word processing interface.

a common point of discussion, a way to leave a contribution behind for others to develop further (and a way to earn points for the course)" (WeblogsAndWikis, 2007). The WritingTheWikiProject contains information on beginning wikis and learning to negotiate the sometimes-intimidating process of collaborative writing. Like other database-oriented wikis, the WritingTheWikiProject outlasts the classes that modify it and mimics assignments in which students create web documents that are intended for use outside of academics. Like Wikipedia, these academic database wikis take advantage of the software's collaborative capabilities to encourage everyone to add knowledge, growing a more comprehensive set of information as the editing population increases.

With projects like those at Bemidji State and the ability to facilitate collaborative writing assignments, wikis challenge the mode of composition teaching in which unconnected assignments are written by individuals and read solely by the teacher. Wikis are, of course, not the only technology that can resist the single author model of composition, nor is collaboration continually necessary while using a wiki. But the affordances of wikis, particularly page history and public posting, can ease the collaborative process, promoting the difficult goal of assigning collaborative writing assignments.

3.3. Critical interaction

As students collectively examine and manipulate wiki writing, they not only give each other advice and criticism but also provide a real audience for each other's work, paving the way for the critical interaction that serves as the central justification for much wiki use in composition classes. Traditional methods of teaching composition encourage critical interaction between students during class time through discussions or group activities. A number of online writing tools aim to extend this interaction outside of class time and space; blogs, bulletin boards, listservs, and chat clients are only a few of the technologies that allow students to interact about course material from a distance. Wikis are a natural addition to this list. Furthermore, they offer an important, and complicating, feature that the other technologies do not: a near-complete lack of preexisting structure on an empty page or between pages. Unlike the formatted post/response structure of other technologies for critical interaction, wikis can allow students a wider variety of ways to respond to their classmates' thoughts and writing: by editing, by posting a response on the page, by posting a link to a new page, by posting outside links, etc. This lack of structure certainly challenges more common ways of fostering interaction, both in and out of the classroom. Ideally, this freedom could encourage the development of more natural and rhetorically savvy online conversations between students.

The challenge of encouraging critical thinking is not particular to wikis or to networked pedagogies. Most composition teachers deal with the question of how to encourage students to think critically about what they read and say rather than simply accepting or rejecting each author's claims. This critical attitude is particularly important for research projects that require students to enter an academic conversation—as Hess (2006) observed, students generally approach research as a potential source of facts or viewpoints that agree with theirs, largely failing to engage with other pieces of writing in substantive ways (p. 291). Similar attitudes hold fast when students are asked to critique and develop one another's written arguments to enter a textual conversation—either they agree and have no constructive criticism, or

they disagree and refuse to read the argument generously. As Barton (2005) implied, certain characteristics of wikis could pressure students to interact more genuinely with the words and ideas of their classmates (p. 187). Particularly, the fact that wikis begin as unstructured environments, created and developed collaboratively between the members of the community, could encourage students to interact more deeply and critically than they might otherwise.

The optimistic possibilities for such unstructured interaction were demonstrated by a pilot program at my university, which encouraged the use of wikis to foster critical interaction as a means of practicing argumentation. One aspect of this program required students in first-year composition classes to write to their class wikis frequently, posting daily journal entries as well as draft work and formal writing assignments. Students were encouraged to read and respond to their peers' posts, and all entries could be added to, edited, and evaluated by their classmates. This high level of interactivity with other students' writing and ideas had the potential to encourage students to respond to counterarguments and address various points of view in order to more effectively persuade their classmates. In the unstructured environment of the wiki, individual classes developed various rhythms and systems for posting and responding, with a wide range of success. Most found that the lack of structure on the wiki was both a benefit and a drawback: it offered increased possibilities for student interaction, but students often hesitated to lend their own structures to the completely open environment.

The tension between structure and freedom in wiki writing is illustrated by the first class I taught with wikis, which relied, perhaps too much, on the ability of wikis to facilitate critical interaction. A central assignment in that class required each student to create an individual wiki home page, which would then be linked to our main class page and serve as a center for the student's work on the wiki. Students were instructed to write journal entries on their pages three to five times a week and to read and respond to their classmates' writing. Other than that initial structure, I intended wiki interaction to be completely open-ended. What I found after a few weeks of this practice is that I had fostered a class of lurkers—they *were* reading one another's work (which was apparent from class discussion), but they were rarely (or, in some cases, never) commenting on their classmates' opinions. The exceptions to this were playful posts, which would accumulate dozens of responses. A student who wrote about his favorite TV show as a child spurred nearly every class member to list which children's shows were the best and why. Although I had no problem with the nostalgic TV discussion (and actually found it helpful to the class dynamic—the students relaxed a bit and acted more familiar with one another afterwards), I had hoped that a broader range of entries would spark similar interest and develop into debate. Most wiki posts, however, went conspicuously un-commented on and un-interacted with, particularly those dealing with serious or controversial subjects.

This breakdown of interaction on a wiki indicated to me that even as wikis can facilitate free conversation between students and classes, they also make visible how difficult that interaction is to foster. Wikis do not solve students' reluctance to engage in texts. Moreover, to that reluctance is added the visual and textual impression that the wiki page is a complete entity not in need of change, addition, or conversation. Here, the unstructured nature of wikis is a great drawback—there is no "respond" box to conveniently indicate that a reader should consider responding. Wiki sites often compensate for this by extending open invitations to their readers to encourage editing, and Purdy (in press) argued that such invitations indicate a hesitance on the part of readers to modify what look like finished pieces of writing. Interaction on a wiki,

though seemingly one of the natural consequences of user-editable software, must nonetheless overcome the same hesitancies encountered in attempts to encourage classroom conversation, as well as added hesitancies created by the lack of an overall framework for interaction.

In my class of lurkers, I eventually made an effort to encourage students to engage with wiki material more generally by adding structure to wiki interaction through "wiki forums." Centralized on the class's home page, the forums became the responsibility of a few students each week. Those students were responsible for posting prompts in the form of questions, arguments, quotations, or links for the rest of the class to respond to. Though the prompts covered a wide range of topics, overall they centered the class's attention and interaction on a few weekly points of interest, effectively focusing the interaction without stifling the class's voices. This was a compromise. The forum clearly limited the flexibility of interaction on the wiki, but it did allow me to choose the precise shape of that limitation—a choice I would likely not have been able to make on a blog or CMS. Most importantly, after a few weeks with the forum I found students more willing to comment on all journal posts, even those not posted on the forum. The addition of the forum had set the stage for wiki interaction more generally, and I found students engaging in a wide range of material by the end of the semester and more fully taking advantage of the technology's flexibility. This situation illustrates another pedagogical aspect of introducing technologies that are new (at least in an academic setting) to both the students and the teacher. Assignments must be designed and developed to "bridge the gap between individualistic and social conceptions of writing and technology" (Samuels, 2006, n.p.). Although wikis open space for unusual assignments (like the undirected journal responses), teachers will not necessarily be able to depart completely from students' expectations for a course. Tools like forum conversations serve as a helpful compromise between the students' push for structure and the general openness of wikis.

Of course, the interaction between students is not always positive. As with any online interaction, particularly one not mediated by the teacher, the wiki can become a platform for online flaming. This became a particular problem for one of my classes in which one student consistently angered his classmates online and in class. One of his particularly upsetting posts to our wiki began as a general inquiry about appropriate gender roles and devolved into a scathingly homophobic and misogynist argument, including slurs, stories, and generalizations that offended the rest of the class. In this instance, the free critical interaction that I had hoped the wiki would foster broke down. Before I even read the initial post, other students had responded with anger, and, in the process of defending his position, the initial poster made even more upsetting claims. Eichorn (2001) and McKee (2002) correctly observed that online flaming *can* open space for productive response and that the risk of flaming is a necessary factor in any online discussion, but the unstructured nature of the wiki may exacerbate conflicts over flaming (given, for example, that I had not found the new post on the day it was written and thus could not mediate the ensuing conversation).

Despite the potentially negative consequences of student interaction on wikis, the technology holds great potential to foster interaction in more positive, though admittedly complex, ways. A wiki's initial lack of structure provides an open space for conversations to develop and take place in ways that could greatly enhance interaction between students outside of class. Of course, this same freedom can be overwhelming to students and teachers alike—a caveat that helpfully reminds us that the benefits that wikis offer to composition are by no

means automatic. Wikis do not immediately *cause* students to engage critically through writing, but they can encourage practice of written communication in ways that are friendly to this goal.

3.4. Online authority

When composition classes use wikis to facilitate interactions between students, host class documents, and develop student writing, notable shifts in authority can occur. Since each visitor to a wiki space has equal privileges to add, modify, or even erase content, the authority in that space can be more equally distributed between teacher and students than it would in a traditional classroom (or other online venue). Students can change documents like the syllabus, assignment sheets, and their classmates' final papers—none of which would be possible without the editability provided by wikis. Ideally, this ability could encourage students to set boundaries for themselves and maintain their own space, taking increased responsibility for the structure and content of their learning rather than simply responding to a teacher's pre-set agenda. But it also has the potential to undermine teacher authority so thoroughly that basic tasks (such as reading and responding to a student's work) become nearly impossible. In any case, the changes to authority taking place on a wiki make visible our always-messy attempts to balance teacher and student authority.

The reshaping of authority on wiki spaces highlights a largely unspoken (though sometimes criticized) assumption of many college teachers and administrations: the teacher should maintain control over classroom interactions, communications, and content, continually mediating between the students and the subject matter at hand. Composition scholarship has, to various degrees, attempted to lessen the split between teacher and student authority in order to "encourage students to use language to resist as well as to accommodate" (Cooper & Selfe, 1990, p. 847; see also, Kent-Drury, 1998; Podis & Podis, 2007), but the teacher remains the ultimate authority in other issues. For example, even as Podis and Podis (2007) suggested that teachers ought to minimize the authority divide between themselves and their students, these authors explicitly claimed that teachers ought to reserve "primary authority in such matters as selecting readings, making assignments, and determining who receives course credit" (p. 125). It is exactly in these areas (of readings, assignments, and even grading) that wikis can trouble teacher authority while empowering students—by bringing those processes into a user-editable setting and making them available to all students. Though I don't mean to imply that a networked pedagogy involving wikis completely levels classroom authority (this is impossible given the designations of "teacher" and "student" and other institutional forces), wikis do threaten to complicate authority, even in areas that have traditionally been strongholds of teacher power. Purdy described the effects of editability succinctly: "A text's initial author does not have the final say in what that text is supposed to communicate. . .. Not only are texts designed to have multiple authors, but knowledge is framed as up for debate by any interested party" (Purdy, in press). Wikis frame anything posted on them as "up for debate," embodying our field's increased interest in leveled classroom authority.

Understandably, the lack of authority involved in teaching with wikis is a prime sticking point for teachers considering using the technology. Teachers rightly worry that students could

maliciously or accidentally change segments of the wiki, deleting important class information or their classmates' work in ways that fundamentally threaten the progress of the course. This is a possibility, and it is one of the main risks inherent in using wikis. However, the software does include a feature that helps mitigate the effects of using an ever-changing course web site: The ability to view a page's history and, if necessary, to revert to an older version of the page pushes against the open ability to change any page. Even if a student were to delete another student's paper, simply by accessing the list of recent changes the original post could be restored. This ability to revert to earlier versions of a given page does not ultimately restore authority to the teacher, however. The teacher cannot continuously monitor all pages on a wiki to correct malicious or accidental changes, even if it is simple: Throughout a semester, students may create hundreds of new links. To compensate for this challenge, the "soft security" model employed by mass collaborative web sites like Wikipedia may also function in class wikis (Richardson, 2006, p. 61). Soft security, according to Will Richardson, indicates a distribution of responsibility in which keeping the site free of extraneous material and vandalism results from "the group's best effort, not any one person's" (p. 61). The students share authority with the teacher, "monitor[ing] the content that is added and make[ing] the necessary edits and revisions" (p. 64). Thus, the identity of teachers using wikis in a networked classroom can be decidedly less authoritative than that in a traditional classroom. Student identities can change simultaneously, taking on more responsibility and (hopefully) a more active role in the creation of class spaces. Of course, although Richardson's (2006) soft security model is an accurate description of one type of community interaction that wikis make possible, it is by no means an automatic product of wiki use. Idealistic reliance on the proper functioning of the soft security model can be naïve. As my experience creating the wiki forum indicates, students may resist open-ended assignments and may want the teacher to take an active role in shaping course content.

Students' sense of online authority may also be affected by the perception of online interaction as anonymous; students who are shy in class may be more willing to assert themselves on the wiki. Wikis offer the ability for writers to appear completely anonymous, known to readers only by pseudonyms. It is important to acknowledge that this anonymity is sometimes an illusion, but it is nonetheless attractive to many students and thus merits attention for both its more positive and more harmful effects on online interaction. One of the most successful wiki activities in my class, and one that reflects the challenges wikis present to representations of online authority, has been using the wiki as a space for draft editing. During the first semester I taught with wikis, an unfortunate class cancellation meant that my students were going to miss a draft workshop day. They had found previous workshops helpful, however, so I wanted to find some way to facilitate their exchanging and commenting on drafts. I opened draft space on the wiki where students could voluntarily place drafts—the only "price" of posting a draft was that you then had to edit at least two of the other posted papers. This relatively simple assignment quickly became an overwhelming success, with students eventually requesting wiki draft workshops even when we *did* have time for their in-class counterparts. Because the space was voluntary, the self-selecting students who posted were willing to devote time to editing their peers' essays in return for help on their own. Many spent hours in the draft space—inserting questions, suggestions, and corrections that ranged from the mundane to the deeply engaged—and generally improved the

final drafts of papers significantly. The asynchronous and written nature of the commenting allowed a series of comments to build around one issue, leaving a record of various opinions. Many editors disagreed with each other, and those disagreements were expressed and worked through in the shared online space in ways that the traditional oral draft review session rarely facilitates.

According to the students in my class, part of the success of the online draft workshop space was due directly to students' perception of online space as anonymous and to the authority conveyed by that anonymity. Although assumptions of online anonymity often mask important facets of identity (see, for example, Pagnucci & Mauriello, 2003) students' online interactions are sometimes predicated on their perceptions that this environment is more anonymous or less threatening than the traditional classroom. In the context of the wiki, this perception can lead to an increased willingness to critique peers and a simultaneous openness to taking criticism. Another benefit of this peer-revision exercise was its use of a series of texts rather than a verbal exercise. As Hewett (2000) has argued, the content and results of such text-based peer revision are qualitatively different from the content and results of oral revision exercises. Warning teachers to align the medium for draft sessions with the sessions' goals, Hewett observed that "speculating and conversing hypothetically and abstractly about writing-in-progress may be more challenging in an online than an oral environment," whereas students may be able to "suggest concrete revisions about content, form, or process" well both online and orally (p. 284). Thus, taking advantage of the ability of wikis to facilitate online draft work may be used to meet specific revision goals.

Although wikis cannot completely overturn the hierarchies inherent in the classroom, they may make students feel more empowered to speak out, both against the teacher's authority and in response to their peers' writing. The ability to change and edit any course documents posted to the wiki threatens confusion and complication, but it also offers the possibility of more active student participation in learning, giving students the easy ability to talk back to both their teachers and their peers. Overall, the issue of online authority is greatly complicated by wiki use in ways that highlight how messy the process of balancing authority really is.

4. Conclusions

Given this analysis of wikis in light of new media composition, collaborative writing, critical interaction, and online authority, I argue that wiki use could encourage change in our approaches to writing. It could broaden the definition of writing to include new media elements and deep collaboration. It could complicate the already-tangled relationships between teacher and student authority, encouraging us to purposefully rethink and negotiate those relationships. Most importantly, wiki use could help us realize and enact a more fully social view of writing in which each text is, plainly and literally, connected to and developed by a number of people.

The social turn in composition studies has been progressing for decades now, offering a vision of writing as always deeply embedded in social ideologies and cultural contexts. Johnson-Eilola and Selber (2008) observed that technologies participating in the "cultural

commons" are particularly supportive of this shift. Such technologies "follow out the logic" implied by the social turn by connecting people to one another and to valuable information, in a variety of contexts, through writing (Johnson-Eilola & Selber, 2008). The networked pedagogies created by using wikis clearly support the vision implied by this turn, ideally encouraging writers to be more aware of the social contexts within which they write and the rhetorical possibilities for written communication.

This idealistic vision of wikis' potential is unlikely to be fulfilled completely, and I do not intend to present wikis as a sweeping solution to pedagogical problems. But considering the drastic changes and complications suggested by the vision can nonetheless push us into a productive reexamination of our pedagogies. Even the basic aspects of wiki use described by this article indicate a number of areas in which wikis speak to current composition pedagogy. While the current article contributes to the emergent conversation both about the potential of wiki use and about the field of computers and writing, it is only the start of what I hope will be a long line of questioning about the use of wikis and their potential to challenge assumptions. As interest in wikis develops, future analyses promise to yield continued challenges and illumination. How do shifting teacher/student authorities on a wiki affect relationships during class? Do students who interact critically on a wiki bring that skill to class? How does the addition of a public audience affect composition done on a wiki? Do wikis encourage, inhibit, or redefine plagiarism? Can they be approved of institutionally despite obvious security risks? Does the wiki act as a bridge to, or a substitute for, more difficult new media skills such as web design? What shapes students' affective relationships to wikis as an online space? Does the potential presence of spam or advertising in a wiki threaten its efficacy as a composition medium? How can wikis participate productively in each phase of the writing process? Such questions are only a few of the many connections between wikis and composition pedagogy that remain to be considered. Ultimately, whether or not wikis become a standard of composition pedagogy, their current popularity in the field (and in culture) shows that their study has incredible potential to inform the writing and teaching processes they interact with. Despite the inevitable obstacles involved, English teachers should continue to experiment with the networked pedagogies that wikis can support.

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