"A Noiseless Patient Spider": Whitman, Wikis, and the Web
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1 A NOISELESS patient spider,
I mark’d, where, on a little promontory, it stood,
isolated;
Mark’d how, to explore the vacant, vast surrounding,
It launch’d forth filament, filament, filament, out of
itself;
Ever unreeling them—ever tirelessly speeding them.

2 And you, O my Soul, where you stand,
Surrounded, surrounded, in measureless oceans of
space,
Ceaselessly musing, venturing, throwing,—seeking the
spheres, to connect them;
Till the bridge you will need, be form’d—till the ductile
anchor hold;
Till the gossamer thread you fling, catch somewhere,
O my Soul.

From the Walt Whitman Archive,
http://www.whitmanarchive.org/published/LG/1871/poems/234

Like the spider in his 1871 poem, Whitman spent his poetic
career more often than not poetically isolated, in solitude "launch[ing]
forth filament[s] … out of [him]self.' By 1871, he had published four
editions of Leaves of Grass that were ridiculed, despised, and now and
then admired by critics but primarily ignored by the average American.
Thus, although his spider-web image maps so nicely onto the now
quaint term the "World Wide Web," it seems impossible that even the
visionary Whitman could even have conceived of, much less hoped for,
the wide-reaching demand for his poetry or the democratizing access
to it offered by the Internet in general and the Walt Whitman Archive
(www.whitmanarchive.org) in particular.

Though I think most of us, myself included, still believe that the
web never will or should completely replace the book either for
scholarship or teaching, the Internet undeniably is an increasingly
legitimate and even compulsory haven for scholars and students. For
authors such as Whitman who wrote and published multiple versions of sprawling texts, it is in many ways an ideal medium—a web, if you will. For most serious readers of Whitman, the Whitman Archive has become an essential daily tool. It does, indeed, seem to operate as his hoped-for bridge: ductile—ininitely malleable, changeable, flexible, expandable—but also an anchor—solid, stable, strong.¹

As a democratic (no passwords or academic affiliations required), comprehensive, scholarly, and accessible space, the Whitman Archive has radically changed how scholars read and work with Whitman’s poetry, and it has fundamentally changed how I teach it, too. What I aim to show here is that, while our own dog-eared hard copies may never lose their allure, for teaching purposes they are no longer the only or even the best manifestations of some literary texts.²

I developed the upper-division course I’ll discuss here—"Literature and the Digital Archive: Walt Whitman"—in an attempt to answer questions that had been keeping me from fully taking advantage of digital literary archives in the classroom: Is it viable,

¹ Brett Barney et al, members of the team responsible for building and maintaining the Whitman Archive, also use the web metaphor to describe the challenges of collecting, encoding, and posting Whitman’s widely-spread manuscripts in their essay "Ordering Chaos": Whitman’s “manuscripts have never been all in one place. As early as his teenage years, Whitman had begun a practice of ceaselessly launching forth texts, sending out letters, essays, and poems to friends and publishers. ... Currently, Whitman manuscripts are found in over seventy repositories, and Whitman scholars have been forced to travel widely to understand the depth and breadth of his manuscript legacy. The project we have undertaken, part of the Walt Whitman Archive, removes this barrier in Whitman scholarship. ... We are creating ... one place where a scholar ... can go to search through the myriad documents and find exactly what is needed” (1–2).

² In 2001, the online journal MITHologies, which is associated with the Maryland Institute for Technology in the Humanities, published a special issue titled "Reflections on The Classroom Electric." The Classroom Electric (http://www.classroomelectric.org/intro.html) is an online teaching resource that pools information from the Whitman Archive and the Emily Dickinson Archive and also offers short essays, teaching suggestions, syllabi, and other teaching materials that use these Archives. Articles by Ed Folsom, Susan Belasco, and Stephanie Browner are especially useful. My course did not use The Classroom Electric, in large part because my university is on the quarter system, which necessitates a very streamlined course. Here, then, I discuss only how I used the Archive’s “main” site alongside our course wiki. However, I highly recommend TCE and the special issue of MITHologies to professors looking to incorporate both the Archive and TCE in the literature classroom.
academically sound, and/or pedagogically effective to ask students to access not only secondary but also primary texts online? How can students effectively engage with literature in the absence of hard copy texts that they can underline, highlight, and otherwise mark up? How can we design effective assignments and materials for such courses? How can digital archive-based courses honor traditional pedagogical values of literary explication and exploration? What might be gained—and lost—by teaching literature electronically? And last, but definitely not least, how technologically savvy must we and our students be to make such courses work?³

In “Literature and the Digital Archive,” I asked students to use technology both to engage with literature and to respond to it. The course invited humanities students, so often forgotten in discussions of teaching with technology, to confront literature beyond static editions and outside of hallowed anthologies. And, I wanted a response arena for students that would be as ductile and anchored as the Whitman archive itself. Thus, we combined our use of the Whitman Archive with a wiki interface online as well as a course Blackboard site (an online educational course supplement similar to WebCT and Moodle), (particularly classroom activities and the wiki assignment) and share student feedback. and I'll also discuss this course wiki assignment at some length in this essay. In the following pages, I discuss the course's design, schedule, and assignments Throughout, I focus on how my own perceptions and students' reported experiences might help other instructors looking to incorporate similar methods or mediums.

**Technology in the "Literature and the Digital Archive" Course**

"Literature and the Digital Archive" was a combination single-author immersion course and online research methods course. The

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³ Even Ed Folsom—one of the Archive's founders and co-editors—has acknowledged the difficulties of teaching literature with the Internet, stating that "the real challenge is to absorb these tools effectively into classes on American poetry … the new technology has forced me to rethink, in some fundamental ways, how I can most effectively teach students to read poetry" (1). Folsom suggests innovative and pedagogically exciting ways to use the Archive's manuscripts, and I urge readers to consult his and other early recordings of teacherly engagement with the Archive in the MITHologies issue referenced in the previous note.
course was restricted to upper-division English majors at my large state university, California Polytechnic State University (Cal Poly) in San Luis Obispo, CA. We used a computer classroom; each of the 16 students had his/her own Mac computer station, with an instructor station and projection screen at the front of the room. The course did not have any technology prerequisites, and students did not know that they were registering for a technology-heavy class. Because this was a 10-week quarter-system course (as opposed to a longer semester-system course), we focused almost exclusively on Whitman's poetry. With another six to eight weeks in a semester, I would also consider his major prose works. We used the following forms of technology throughout the quarter.

The Walt Whitman Archive

The Walt Whitman Archive was our exclusive course "textbook" for both primary and secondary readings. The Archive is especially useful for a seminar with advanced undergraduates, because it includes all available published editions of the primary texts (Whitman's *Leaves of Grass* and other writings), extensive manuscripts, biographical material, correspondence, contemporary (nineteenth-century) criticism for each printed edition, current criticism by Whitman scholars, an image archive and sound archive, and teaching resources.

I have become so accustomed to using the Whitman Archive and other online literary archives almost daily that, frankly, it never occurred to me that this would be entirely new terrain for my students. Results from my first anonymous survey of the students (I used Blackboard to gather information anonymously from students throughout the quarter) revealed the depth of my ignorance on this count. We sometimes assume that our students are more

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4 While I did ask students to order a hard copy of Whitman's writings (the Library of America paperback edition, titled *Walt Whitman: Poetry and Prose*), we only used it in class once—when we "lean[ed] and loafe[d] on the grass" outdoors for a group reading of "Song of Myself"—and my final survey showed that most of the students either never or very rarely used the hard copy for class purposes.
technologically savvy than we are—and, in many ways, this is probably true—but they are not necessarily familiar with technology as a tool for reading and researching literature. According to my first survey, before my class, seven of my 16 students had never even heard of literary digital archives; six had heard of them but never so much as visited a home page; and three had only rarely used them—with two of these three mentioning that their only experience was in another class I'd taught, in which I required students to visit the marvelous William Blake Archive (www.blakearchive.org).

Students' initial reactions to learning how heavily we'd be relying on the Whitman Archive were mixed at best. One student commented, "As an English major who has been hauling around huge anthologies for four years, I am very excited to explore the work of one of my favorite authors in a very different way.' But others revealed significant anxiety about the online medium. In fact, in response to the question, "What was your initial reaction upon learning that we'd be relying so heavily on the Archive?," 11 of the 16 students in the class answered more negatively than positively. One noted a fear that "our relationship with Walt Whitman [will be] partly contained behind a screen of lights, which [will] make the experience less enjoyable.' Several confessed that they even considered dropping the class. Perhaps this comment best represents their initially mixed feelings: "My initial reaction at hearing about our focus on the archive was, 'Dude, Walt Whitman would storm Cal Poly shaking his staff and sounding his barbaric yawp, with his black raincoat streaming in the wind of his rage, if he were alive and caught word of this.' I admit that I am sometimes a knee-jerk Luddite but have come to accept the value of technology, and after deeper consideration I warmed to the idea of the archive.'

Luckily for the success of the class, this student was not alone in "coming around" in his/her feelings about the Archive. By the time I conducted my final anonymous survey in the last week of class, student opinion had notably changed since the early days in the quarter. Instead of 11 of 16 students responding negatively to our use
of the Archive, at quarter's end, fully 16 of 16 students responded positively to the question, "If I teach a Whitman class again, would you recommend that it use the digital archive?.' In one student's words, "The archive offers an alternative and interesting way of studying rather than simply reading books and handouts.' Ultimately, I think that the smart distinction this student makes—between "studying" and "mere reading"—is what sold the students on the Archive's centrality to discussions of Whitman. For instance, in the final survey, multiple students mentioned the rewards of studying manuscript versions of poems side-by-side with different published versions, images, and criticism. Also, as the professor, I was delighted that the Archive's vast holdings allowed me to easily assign a wide array of different readings for any one class day without needing to assemble a course packet, as seen in this screen capture of one week's reading assignments:
This day’s schedule includes critical short essays, poems, Whitman and Emerson’s correspondence, and images. (We didn’t cover all of these poems in one day, of course, but I like to have students read widely to prepare for more deeply focusing on individual texts in class).

When all was said and done, students reported that their use of the many different areas of the Archive led them to feel more like “scholars”—active members of the field—and less like “students.” Many did, however, remark that they at times missed the familiarity of a book in their laps, especially considering Whitman’s insistence that his book...
is, in fact, a tangible representation of himself. (In fact, he commands in "Whoever Your Are Holding Me Now in Hand" that his readers "thrust" his text "beneath [their] clothing" to keep it with them—physically and as a directive presence—at all times http://www.whitmanarchive.org/published/LG/1867/poems/23. Now, of course, readers could thrust their iPhones beneath their clothing and thus access his entire oeuvre digitally and instantly, so perhaps this is a moot point).

Blackboard

In addition to the Archive, I used Blackboard technology throughout the course to organize and present course materials. Unlike the public wiki (see below), Blackboard provided a private online location accessible only to me and enrolled students. On the Blackboard site, I posted what I call "nitty-gritty" course materials, including the syllabus, reading schedule, gradebook, announcements, and the like. Blackboard also hosted our discussion board, and I set up course assignments there so students could submit files electronically on Blackboard in addition to on our wiki (described below). This "double-submission" helped alleviate students' (and my) concerns about the reliability of the wiki site. Perhaps most importantly, I used Blackboard's survey tool to collect data and feedback from students anonymously (the aforementioned surveys), so that I could monitor their experiences using the Archive and the wiki.

The Wiki

The final technology-based element of the course was our wiki, which can still be viewed online at http://engl449--whitman.wikispaces.com/ENGL449--Whitman.Home.

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5 For a review of the literature concerning wikis as educational tools, see Parker and Chao. Their review of how wikis enhance learning in the "cooperative/collaborative paradigm" and the "constructivist paradigm" is especially helpful for those seeking a pedagogical underpinning for the use of wikis in the classroom. See also Will Richardson's *Blogs, Wikis, Podcasts, and Other Powerful Web Tools for Classrooms*, Corwin Press 2008.
A wiki is a website that features user-generated content; in other words, there is no central arbiter or authority on a wiki—its users regulate themselves and each other. Therefore, its credibility (or lack thereof) is determined by the quality of updates posted by its users. Peter Duffy and Axel Bruns offer one useful definition of wikis, noting that "wiki pages can be interconnected, organized as required, and are not presented by default in a reverse-chronological, taxonomic-hierarchical, or any other predetermined order. … [they are] spatial structures that are infinitely expandable" (5). Thus, wikis are especially well suited for humanities classrooms, in which discussions frequently continue throughout an entire quarter or semester, making rigidly chronological online "discussion boards" less than desirable. For assessment purposes, most wikis allow the professor to track who contributed what and when, making "the evolution of a written task" easily visible (Duffy 6). But, perhaps most importantly for teachers of literature and writing, wikis are collaborative, creative compositional tools that invite students to "define the process of production itself" (Garza and Hern⁶) rather than work within more familiar models that produce, not surprisingly, familiar results.

The most famous—or infamous, according to many academics—wiki is, of course, Wikipedia, a point driven home by my first survey results, in which 12 of 16 students mentioned Wikipedia as their only prior contact with wikis. Of these 12, only two realized that Wikipedia contained user-generated content, and not one of the students had ever contributed to any wiki. In fact, four claimed never to have even heard of them.

Clearly, we were starting from virtually ground zero, and many of the students initially reported that they were not happy about it. The wiki assignment seemed too new, too unstable (they were worried about "messing up" the wiki pages), and too "tech-y" for many of them.

⁶ Garza and Hern's "webtext" article uses composition theory (primarily, they expand John Trimbur's ideas about "the means of production and delivery") to theorize how and why wikis are ideal for collaborative writing projects.
The first survey results showed that while seven of the 16 students were at least somewhat looking forward to using the wiki, more—eight—were "worried," "apprehensive," "petrified," "daunted," "confused," "doubtful," and concerned that the wiki just seemed like "a lot more work" than traditional writing assignments. Like the Archive, though, the wiki eventually won them over. At the end of the course, fully 16 out of 16 students replied "Yes" (albeit sometimes with useful qualifications) to the question, "If I teach a Whitman course again, would you recommend that it use wikis?"

A note on the particular wiki interface that I chose: when designing the class, I decided against using the wiki function in Blackboard, because Blackboard's wikis are limited to enrolled students and faculty at a single institution. Instead, I chose to use Wikispaces, a free open-access site that targets academic users, because it allowed me to "enroll" outside readers. (Kenneth Price, co-editor of the Whitman Archive, was one of these outside readers; it was very motivating for the students to know that he might "peek in" on their work at any time). With Wikispaces, the instructor sets up the site as s/he wishes and then invites students and others to join via email. Anyone browsing the Internet can view the site, but only "enrolled" users can actually contribute to and change the wiki pages. Students created anonymous usernames to protect their identities online.

Within Wikispaces, I was responsible for the design, maintenance, updates, and daily "clean-up" of our wiki pages,8 and students contributed all content as they completed class assignments. I designed the wiki with two major goals in mind: ease of use and clarity. I wanted the students to be able to focus on their work without worrying about how to navigate within the wiki or about whether or not they could "screw it up." Our course wiki pages included one main access

7 These qualifications included suggestions about the number and length of wiki assignments, the subject categories and headers, and the design of the wiki pages.

8 One drawback of the wiki assignment is the amount of work required of the instructor; in addition to the time spent learning simple HTML and setting up the site, I spent hours every week during the course keeping it organized, clean, and clear.
page ("Home"); five basic navigation pages (Announcements & Tips, Introduce Yourself, Link to the Archive, Log of Archive Problems, and Suggestions for the Archive); seven "content" pages, which focused on different Whitmanian themes (Arts & Culture, Environments, Nation & Democracy, Poetry & Poetic Form, Sexuality & Desire, Spirituality, and You & I, focusing on the relationship between the poet-speaker and the reader); and six subtopic pages within each "content" page (Themes & Patterns, Criticism by Whitman's Contemporaries, Current Criticism, Key Texts, Key Passages, and Close Readings). The following linked menu appeared on every page of our Wikispaces site, so that students could easily navigate within the wiki:

![Linked Menu](image)

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To add content to the wiki, students completed an assignment that asked them to gather information from the Archive about a specific edition of *Leaves of Grass* (say, the 1856 version). I created a very simple Microsoft Word template that they could fill in when completing the assignment; this document can be seen in Appendix A, along with a rubric in Appendix B that I created to help them fulfill assignment expectations.

The wiki assignment asked students to dive deeply into the Whitman Archive in order to gather information, sort it, evaluate and analyze it, and re-present it to the class in a more concise, more easily manageable manner in writing. Before the first wiki assignment was due, we spent a great deal of class time discussing just how vast the Whitman Archive is—and, by extension, just how difficult it is for any one student to become comfortable with even a tiny corner of it. I explained repeatedly that the theory behind the wiki assignment was to divide this Archive exploration project among the students, allowing each to become a relative expert on a couple of topics within Whitman's poetry through the process of gathering (in the Archive) and reporting (in the wiki) on different themes that appear throughout all editions of his poems. For the 1855 (the first) edition, every student in the class completed a wiki assignment. After that, about one-fourth of the class completed a wiki assignment for each edition. Overall, each student completed two wiki assignments. Originally, as seen in the rubric, the wiki assignment also included a formal presentation element; the students were to spend about 10 minutes in class summarizing their findings. However, we quickly found that a more organic full-group discussion facilitated by the "reporting" student was a more successful, more interesting, and more engaging way to bring each individual's wiki work into class discussion.

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9 This points to the need for flexibility in a course like this one. I'd originally designed the assignment thinking that each student would complete FIVE wiki assignments! When it became clear that that would be entirely too much work—to the point where it would become arduous and counterproductive rather than pedagogically sound—I reduced this to two wiki assignments.
It's important, though, to note—again—that students did feel a great deal of anxiety about the possibility that they (or another student) might somehow destroy or erase work already published on the wiki. Thus, I asked students to submit their completed MSWord documents on Blackboard to ensure that I would grade a "clean" version of their assignment, one that was not subject to technological breakdowns or human error on the wiki pages. Then, they submitted their work on the wiki as well, so others could read and respond to it. In their final survey, multiple students commented that the double-submission was absolutely necessary to their comfort with the wiki technology—they felt safe working within the wiki, because they knew they couldn't fundamentally harm their own or other students' work or grades.

Course Banner

Because students often were working with all three of the course technologies simultaneously—the Archive, Blackboard, and our wiki—I wanted them to be able to identify their online "location" at a glance. Therefore, to differentiate between Archive pages and our own course pages, I created a simple Photoshop banner that I placed at the top of each wiki page and within our Blackboard site:
Technology training

We used these three technologies extensively (daily, in fact), but I aimed to keep our focus on course content; at the end of the day, I wanted this to be a course about Whitman's texts, not about the archive or the wiki. These technologies were meant to be tools ( mediums, to use one of Whitman's favorite images) to allow us to access and respond to Whitman's works as effectively, efficiently, and thoroughly as possible.

Therefore, I spent almost no in-class time teaching students how to use the Archive or how to work within the wiki environment. Our only rudimentary technology training took place during and immediately following our first class meeting, for which I designed two very simple introductory activities meant to familiarize students with the course's three technological interfaces.

The first activity took place in class. I asked students to locate a few items in the Archive and report on their findings in Blackboard's discussion board area. This helped familiarize students with the Archive's offerings, its search functions, and its limitations, and it also gave them a chance to navigate through the Blackboard site.

The second activity was a homework assignment that introduced them to the wiki interface. Students had to create a username and then post their answers to three simple questions on the wiki's "Introduce Yourself" page. These simple tasks gave them a no-risk opportunity to "click around," post and re-post answers, and get acquainted with the wiki's quirks and commands. (The "Introduce Yourself" page can be viewed at http://engl449--whitman.wikispaces.com/Introduce+Yourself).

This initial assignment proved to be a good test case for the students' use of the wiki overall, and it also revealed trends that I saw on the wiki pages throughout the quarter: answers ranged from the extraordinarily thoughtful to the intriguingly suggestive to the merely adequate to the downright incorrect. For instance, one student cleverly riffed on Whitman's exhortation in "Song of Myself" that we "look for him under
[our] boot-soles": "Once I stepped on something that turned out to be Whitman, he was just lying around waiting for me exactly like he promised. I guess he was lying on the ground because he got tired of standing up waiting for people to recognize him. Watch your step!"

Another, though, claimed that Whitman's greatest work was the "Song of Songs." Thus, I almost immediately became aware of both the rewards and risks inherent in using a public wiki.

**Snags and Snafus**

*The computer classroom.*

After the first class meeting, our class sessions settled into a relatively traditional lecture-discussion rhythm. Most sessions included some lecturing by me, cooperative close readings of the poetry (in large and small groups), a good deal of discussion (also in large and small groups), and regular short presentations by the students. In other words, though we were in a computer classroom, we didn't really need all of the technology in front of each student every day: by and large, ours were activities that go on in most literature classrooms daily.

And, as it turned out, the classroom itself proved to present the most serious challenge of the quarter. I had to work hard to ensure that we retained a sense of seminar-style camaraderie, as it was extraordinarily difficult to conduct discussions with the impediment of huge Mac screens in front of each student's face. I frequently asked students to pull their chairs (wheeled, fortunately) to the center of the room, merely so that we could maintain intimacy and eye contact during discussions—something generally taken for granted in seminars. This movement also eliminated the possibility of students web-surfing, email-checking, Facebook-hopping, and the like on their workstations, all of which activities admittedly were occurring in the early weeks of the quarter, before I learned to "manage" a computer classroom. Also, I learned that another effective "distraction deterrent" was simply to move *myself* to the back of the classroom to lecture and to lead discussions, so that students had to turn their backs on their
computers in order to face me. And, as described above, I frequently used small-group activities to combat the effects of the "cold" computer lab.

But, all of this physical movement didn't solve all of our problems, and this cold lab was actually anything but cold on most days. The course took place in the heat of the California autumn in the late afternoon, in a west-facing non-air-conditioned room that didn't even have shades on the windows. We sweltered uncomfortably on many days in a heat compounded by the many running computers and a (literally) blinding sunset slanting in directly at eye level (some of the students brought sunglasses!). To help bring the room's temperature down, I often asked students to keep their individual computers off during class (this also helped cut down on the extracurricular web browsing) and to focus instead on the instructor's computer and large projection monitor, which we used to display pages from the Archive and our wiki. Alternatively, when the room was just too uncomfortable for learning, I asked students to work in small groups in the library outside of our classroom until the sun was low enough in the sky for us to gather again in the regular classroom. (Luckily, collaborative small-group work already is a large part of my courses, so this was not particularly disruptive).

I must admit that, in the midst of the pedagogical contortions I had to go through to make the computer classroom work, I sometimes doubted the wisdom of teaching the course at all—or at least I questioned the ways I'd chosen to do so. It seemed, often, like it just would have been easier to teach Whitman the time-tested way: with a book and a board. It seemed clear to me that, as long as the instructor and students can use one computer and projector at the front of the room (for lectures, group and individual presentations, Q&A sessions about assignments, and the like), it's just not desirable for each student to have his/her own workstation. At least this is what I thought during the first half of the quarter, when the sun blazed at its hottest.
However, as the quarter wore on and the heat went down and we learned to work around the setting sun, I became more enamored of the computer classroom. For example, the students' ready access to the Archive's manuscripts, criticism, and other resources helped them offer extraordinarily high-level readings of the poetry. In small group circumstances, for instance, I could have four student groups working online for the first half of class, given a task of garnering ideas and resources about a specific poem. One group investigated the biographical and historical background of the poem, one group studied its various manuscript versions, one group compared its various printed versions, and one group completed denotative and etymological research of its key words and considered Whitman's use of the same words in other poems. When all of the groups came back together, they could offer carefully researched and textually grounded line-by-line interpretations rather than the overly generalized and speculative line readings that sometimes occur in classroom settings.

Throughout the quarter, we also used the wikis in lieu of or alongside the Archive as repositories of information for full-class discussion and small-group activities. For any edition of *Leaves of Grass*, each student would have completed at most one wiki assignment, and each wiki assignment focused on only one theme (e.g. sexuality, spirituality, nation, etc.). This meant that students came to know certain editions and themes very well individually but had very little exposure to others. To remedy this shortcoming, in class, I would ask each small group to choose any poem from the edition in question. Their task, then, might be to find ALL of our chosen themes in that poem (or prove their absence). For these activities, the work already completed in the wikis was invaluable. The small groups used the wikis to avail themselves of what their classmates had already found and organized: the best secondary sources, biographical notes, and contemporary reviews in the Archive as well as the most pertinent passages of poetry. I also found that students very much enjoyed bouncing their close reading ideas off of those already included in the
wiki pages. As the professor, it was intensely satisfying for me to witness the students engaging deeply not only with the Archive’s primary and secondary resources but also with their peers’ "published" work in the wiki. I think they came to respect each other as intellectuals, and I think the best students in the class pushed their classmates to be better. And, at the end of their small-group "research" and analysis, when each group presented its reading of the poem to the class, I noticed that their camaraderie and interplay was noticeably better than in other full-group discussions in more "traditional" classrooms. I believe this was because they were reading and responding to each other’s critical readings and ideas, not just those of far-distant, fuddy-duddy scholars and critics.

In the end, I’ve come to believe that it’s possible to teach a course such as this one successfully in a computer classroom, but the instructor must be willing to fight—daily—not only the distractions of the Internet but also, potentially, problems with the room or the equipment. For those who simply don’t see the benefit of doing so daily, the best solution would be to teach this and similar courses in a traditional classroom on most days and reserve a computer classroom for the first day of class and for specific computer-centered group research or exploratory activities such as those outlined above. The computer classroom simply affords too many effective and engaging pedagogical opportunities to lose it altogether. Logistically, this sort of arrangement can be extraordinarily difficult, as computer classrooms can be very hard to come by whether they’re being scheduled for a whole quarter/semester or just a few days (hence the late-afternoon mind-

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10 Other in-class activities in this course included: side-by-side analyses of different editions of the same poems, with attention to changes/emendations made by Whitman; manuscript studies, with the goal of showing that Whitman’s “fluid” poetry was actually painstakingly and repeatedly revised; comparisons of contemporary and modern criticism and interpretation of the poems; and students’ praise and "corrections" of the perceived strengths and weaknesses of each others’ wiki assignments (this activity came late in the quarter and gave them the chance to employ tactful criticism). All of these activities were "fed" by the wikis, which helped to make the Archive less intimidating. It was impossible to deal with the entire Archive in one class period; it was, however, possible to deal meaningfully with one wiki page in a class period.
melting time assigned to my course to start with). But, in a perfect world, this blend would be ideal.

The Archive is down!

Also in a perfect world, technology would always function perfectly. By the time I taught this class, I'd been using the Archive regularly for many, many years. I used it extensively while completing my dissertation and other writing projects, with nary a snafu. I'd never, in fact, personally seen the site "down." I was dismayed, then, when it did, indeed, go completely down for about five days during the first two weeks of my class.¹¹ In a quarter-long course, five days can be an eternity, and I was forced to change not only wiki assignment deadlines but also the course schedule in its entirety. I was particularly grateful during this time for the compassionate consideration of Ken Price at the Archive, who kept me updated daily and helped alleviate our anxiety.

Fortunately, this "black hole" in the Archive led to one of my most important flashes of insight in terms of teaching a class with digital archives. Because the Archive can feel a bit distant and too technological to students—too far from the "warmth" of the printed page—it's important to work hard in other ways to establish intimacy among students and between students and texts. When the Archive went down, we spent two full class periods (200 minutes) on the campus lawn, reading the entirety of the 1855 "Song of Myself" aloud. (I had originally planned to do this in the classroom, with us reading directly from the Archive). As we "lean'd and loafe'd on the grass" together, we had the chance to engage with Whitman's poetry in the open air, as he himself requests in his poems. And, at provocative points in the text, I could stop and point out to students how these lines related to the topics set aside as wiki pages. The students already were working on their first wiki assignments at this time, and they were forced during these outdoor class days to go beyond quick word

¹¹ I have never since seen the site down!
searches on the Archive to find relevant passages for their wiki assignments. I'd never teach a similar class again without this initial group read-through, as it was so essential both for their intellectual engagement with the text as well as for rapport-building among the students.

Lessons Learned

While the foregoing already has addressed many of the questions with which I began, I'll return to them now with a few final comments.

1) Is it viable, academically sound, and/or pedagogically effective to ask students to access not only secondary but also primary texts online?

As I soon learned, this is a huge question that, in my naiveté, I thought I could answer by teaching just one course using digital archives. I will not pretend now to have all the answers nor to say that digital archives would work for all or even most literature classes. For Whitman, though, the answer is a definite Yes. Online texts can be a bit of a headache (especially when the "text" disappears, as when a site goes down), but their searchability, vast content, and ease of use are certainly worth the effort. I have taught Whitman without the Archive in survey courses for both majors and non-majors, and I think Archive might be more intimidating than helpful for such courses. While I would briefly demonstrate the Archive's holdings in a survey class, I wouldn't necessarily require my students to use it; Whitman is already confusing enough for most students when they first encounter his poetry. But, I cannot imagine teaching an upper-division or graduate-level seminar on Whitman without using the Archive as a fundamental element of the course. It's not just bells and whistles—it radically changes the depth and breadth with which we can understand the poet and the poetry.
2) How can students effectively learn literature without hard copy texts that they can underline, highlight, and otherwise mark up?

In my experience, they can't. The best solution would be to combine hard copies and digital archives. The majority of students in my class ended up printing out many if not most of the assigned readings, so our use of the Archive didn't save many trees (in fact, it multiplied the use of paper, as they'd already bought a hard copy of Whitman's works). So that our printouts would be easier to use in class, I created .pdf files of many assignments so that we'd all have the same pagination to refer to during discussions.

3) How can we design effective assignments and materials for such courses?

The same principles apply to Archive and wiki assignments that apply to more traditional assignments. Are the assignment's goals and purposes clear? Are the grading criteria clear? Do assignments "grow" and "build" on each other so students are doing higher-level work at the end of the course than they were at its inception?

In designing assignments for this class, I imported what I already knew after teaching literature for ten years. The assignments and materials were meant to engage students with the texts by encouraging careful close reading; to ask students to consider historical, biographical, ethical, and other issues alongside and within the primary texts; to require that students interact with each other to enlarge their understanding of the texts; and to encourage students to add their own voices to the critical conversation about Whitman's poetry.

These goals mirror those of more traditional literature courses. The only real difference was the imperative to clearly explain the technological aspects of the assignments. In classes such as this one, instructors must anticipate significant anxiety on the part of their students and work to alleviate this by offering step-by-step directions,
by providing alternative modes of assignment submission, and, most importantly, by remaining flexible in the face of the unexpected.

Whether your instructional style favors lectures, discussion, small group work followed by presentations, weekly short reports from students, or any combination of the above, there's a way to make the Archive work for any teaching style. I did all of the above at various points in the course, and these activities were always at least as effective if not more so than similar activities I've run in more traditional classes. The question, then, in my opinion, should not be "Should I use digital archives in my class?" but "How should I use them?"

As for the wiki assignment, I learned what other researchers have also learned: wiki assignments can be intimidating at first, but they invite students and teachers to meet on mutually created common ground. As S. Pixy Ferris and Hilary Wilder put it, the wiki helps "bridge the gap between teachers and students" because its "information is neither fixed in format (as it was in the print age) nor limited to locale (as it was before the print age) but still changeable to meet the needs of the community." In other words, wikis work in the classroom for some of the same reasons that digital archives work in the classroom: they allow information—and learning—to be malleable, moveable, adaptable to different students' learning styles and personalities, and, ultimately, retractable or expandable based on professor and student comfort and engagement.

4) How can digital archive-based courses honor traditional pedagogical values of literary explication and exploration?

As Ed Folsom points out in his article on "webbed sight," digital literary archives are especially helpful in asking students to consider texts beyond one static manifestation. Thus, "literary explication and exploration" are, in my opinion, radically improved when students offer their interpretations after considering the poet's manuscripts, notebooks, revisions, and letters. The Archive makes this sort of literary "investigation" both easy and rewarding.
5) **What might be gained—and lost—by teaching literature electronically?**

I'll let my students answer this one. One student said that "a class like this one should have had a more personal approach to Whitman," while another reported the opposite—that the Archive's "pictures and manuscripts almost bring Whitman back to life and they allow us a special connection with him." Some commented that the Archive is "overwhelming," while others called it "convenient" and said it "has everything one would be looking for when doing a research paper." (The latter statement is, I think, both positive and negative: the Archive has so much information that it might discourage students from wider-reaching searches through the brick-and-mortar library or the MLA bibliography.)

The wiki assignment received similarly mixed but primarily positive reviews—but some with reservations. In the course's final survey, 16 of 16 students recommended that I use wikis again in similar future classes, but three did report significant caveats (these included the amount of work required, the way the work was implemented in class meetings—this student wanted to review the wikis in more detail, and I wanted to use them more sparingly in class—, and the wikis' "overwhelming" amount of information—the wiki pages ultimately did become, almost like the Archive, sprawling and huge). Positive comments included student reports that the wikis helped them "retain more information," made "comparing and sharing ideas and work with classmates much easier," and helped students make "deep dive[s] into the text.'

In short, like any text, assignment, or classroom activity, digital archives and wikis reach some students better than others. The challenge, then, is for individual instructors to manipulate them to fit their own teaching styles and preferences and to effectively reach as many students as possible.
6) And last, but definitely not least, how technologically savvy must we and our students be to make such courses work?

This might, perhaps, be the most comforting of all answers for English professors: Not very. It's possible to make excellent use of the Archive with little more than rudimentary click-and-drag and search skills, and wikis can be set up with, admittedly, a great deal of time but very little technological savvy. Nearly every English instructor I've discussed this course with says the same thing: "That's great for you, but I don't know enough about technology." To this I answer, "Yes, you do," and I strongly encourage all of us to consider how the Internet—Whitman's "measureless oceans of space"—can help our students to more fully capture the "gossamer threads" of literature flung ceaselessly by their literary forebears.


Date accessed 20 January 2009.


Appendix A: ENGL 449 Fa07 (Literature and the Digital Archive: Whitman)

Directions: For each of your wiki assignments, compose your answers here or in a similar format. In this document, you can use any design elements that seem appropriate to you (sentences, bullets, charts, etc.), but be aware that some of them may not reproduce in the same way on wikispaces. You may have to experiment a bit to see what works there. DO NOT compose online in wikispaces, or you might lose

When you’re done,
1) submit this MSWord version on Blackboard as an attachment under the “Assignments” tab. Name your document like this: LastnameTopicYear.doc (e.g., SmithSpirituality1856.doc). [[Before you submit your MS Word version, you can delete everything before “Your name” below.]]

2) cut and paste your answers into the appropriate wikispace online.

Your name:
Your topic:
Your edition (year):

1. THEMES AND PATTERNS
Type your findings here.

Estimated length: a few sentences to a few paragraphs, single spaced.

2. CRITICISM BY WHITMAN’S CONTEMPORARIES
Type your findings here.

Estimated length: a few sentences to a few paragraphs, but probably no longer than a page. single spaced.
3. CURRENT CRITICISM
Type your findings here.

Estimated length: a few sentences to a few paragraphs, but probably no longer than a page, *single spaced*.

4. KEY TEXTS
Type your findings here.

*Tips for titles:* For “Song of Myself,” give section numbers and/or first lines in lieu of titles.

Remember to give the poem’s final title as well as its title in your assigned year (e.g. “Whoever Your Are Holding Me Now In Hand” was originally Calamus #3).

*Estimated length:* none, but edit to give just the most important ones. Shoot for between five and ten titles (fewer for shorter reading assignments, more for longer assignments).

5. KEY PASSAGES
Type your findings here, including a brief summary/paraphrase of each passage.

*Tips for key passages:* You can include very short passages (under five lines) in their entirety. Otherwise, you can include line numbers and/or key word search phrases instead (perhaps the first line and the last line of your selected passage).

*Estimated length of each summary/paraphrase (including why this is a key passage):* a few sentences per passage, *single spaced*. 
6. CLOSE READINGS
Type your findings here.

Tips for close readings: Remember you have extra time to complete your close reading—it’s due the Monday following the deadline for the rest of the wiki assignment.

Estimated length: At least one page long but no longer than two, single spaced.