

Technological Ecologies & Sustainability

CHAPTER	12
TITLE	Sustaining Community and Technological Ecologies: What Writing Centers Can Teach Us
AUTHORS	Jeanne Smith Jay D. Sloan
OVERVIEW	<p>Technology succeeds pedagogically when it supports, enhances, or otherwise extends the social fabric of a community; it fails, proves unsustainable, when it violates the expectations, rules, or needs of that community. Perhaps because they are so invested in the notion of social networks, writing centers have much to teach us about the appropriate uses of technology. Writing center theory and practice—with its emphasis on writing (and learning) as process and on knowledge as a collaborative construction—can shed much light upon constraints under which a balanced, sustainable technological ecology might operate.</p> <p>In this chapter, we discuss our experiences with distance-education systems, course-management interfaces, online writing labs, and various other technologies utilized within writing centers. We provide both cautionary tales (e.g., those that describe threats to community that ensure the failure of technology use) and also offer advice for those interested in best using technology to enhance learning within and beyond the writing center.</p>
TAGS	audience, chat, collaborat*, collaborative construction, communit*, community of writers, community-appropriate technology, computer networks, course-management, discourse community, discussion, disrupt, distance education, drill-focused computer software, ecolog*, email tutoring, enhance, face-to-face, hybrid identity, igital interactions, interdependent relationship, Jay D. Sloan, Jeanne Smith, knowledge-making, learning, miscommunication, misreading, multiliteracies, multimodal, network tutors, online tutorials, online writing labs, optimistic pragmatists, OWL, participation, recursive processes, relationships, social networks, supplement*, sustain*, teachable moments, technolog*, technoprovacateur, threaded, traditionalist, tutee, tutor, uncritical, uneasy relationship, videoconferencing, video-conferencing, virtual meetings, virtual, visionar*, voice-over-IP services, writing as process, writing centers
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	development on all eight KSU campuses. He served on the Executive Board of the East Central Writing Centers Association, and is a co-founder of the Northeast Ohio Writing Centers Association.
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Sustaining Community and Technological Ecologies: What Writing Centers Can Teach Us

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In utilizing the metaphor of technology as ecology, the organizers of this collection have made an important distinction. Rather than envisioning educational technology simply as an endless stream of innovative gadgets, computer programs, and networking devices that we can simply drop into our pedagogical toolboxes, the metaphor suggests a much more intricate and interdependent relationship between the technology itself, the instructors who attempt to capitalize on it, and the students who ultimately must make use of it. The challenge of the metaphor, however, lies precisely in that which is so often ignored: the simple truth that the success or failure of technology in education is inescapably tied to the dynamics of the very human system into which it is introduced. Technology succeeds pedagogically when it supports, enhances, or otherwise extends the social fabric of a community; it fails—that is, proves unsustainable—when it violates the expectations, rules, or needs of that same community. Perhaps because they are so invested in the notion of social networks, writing centers have much to teach us about the appropriate use of technology. Writing center theory and practice, with its emphasis upon writing as process, and upon knowledge as a collaborative construction, along with its insistence upon the value of face-to-face interaction, can shed much light on the constraints under which sustainable technological ecologies might operate.

In this chapter we, as writing center directors, discuss our experiences with distance education systems, course-management spaces, online writing labs, and various other technologies utilized in and around writing centers to provide both cautionary tales and helpful advice. It is our belief that the successful pedagogical implementation of technology will always increase the level of interaction among participants in a learning community. The assumption here is that pedagogically valuable feedback on writing, for example, must be found in an interplay between writer and audience. Uncritical adoptions of technology, however well-intentioned, can violate that social compact, throwing us back into a lecture-based model of learning and, in writing, to a misplaced fixation simply on error. Writing centers are deeply invested in fostering community. To create sustainable technological ecologies, we must find that delicate balancing point where community is supported by technology; then we can talk intelligently about using technology fruitfully in both the classroom and the writing center.

WARY TRADITIONALISTS, VISIONARIES, AND OPTIMISTIC PRAGMATISTS: APPROACHES TO COMPUTER TECHNOLOGIES IN WRITING CENTERS

Roberta Buck and David Shumway (2002) noted that “writing centers have for years endured an uneasy relationship with technology,” largely because of the “sense that at bottom technology, particularly asynchronous online response to paper submissions, violates the very foundation of writing center philosophy” (n.p.). To fully articulate our claims about what writing centers can teach us about technological ecologies and community sustainability, we need to review these philosophies and troubled history.

Prior to the 1970s, most writing centers in academia existed as remedial writing “labs” operated as fix-it shops to help “bad writers” clean up problems with grammar and mechanics. The contemporary writing center, however, little resembles its ancestors due to two transformative movements in the field of rhetoric and composition. Starting in the mid-1970s,



process movement theorists like Linda Flower (1979), Sondra Perl (1980), Nancy Sommers (1980), and Muriel Harris (1989) helped shift the pedagogical focus of writing teachers from an emphasis on the end-product of writing to the complex, often recursive processes of writing. As a consequence, writing center tutors became important as experienced writers—as what Kenneth Bruffee (1995) called “knowledgeable peers”—able to help fellow students negotiate complexities of the writing process.

In the mid-1980s, the social constructionist movement began to radically challenge pre-existing notions of the nature of knowledge. As Bruffee (1987) described it, “knowledge is a social construct. . . intrinsically the common property of a group or else nothing at all” (p. 44). Composition theorists like James Berlin (1988) and David Bartholomae (1995) argued that rather than an act of self-expression, writing is an act of knowledge-making within a specific discourse community. The individual writer must master the discourse of his or her community, and, thus, learning to write is, to a great extent, learning to operate by the rules and expectations of community. Of particular significance to writing centers was the emergent interest in collaborative learning, which social constructionism inspired. Utilizing the important metaphor of learning as “conversation,” Bruffee (1995) argued for the particular value of face-to-face peer interaction as a means of entering the discourse communities of academia: “peer tutoring provides a social context in which students can experience and practice the kinds of conversation that academics value” (p. 91). Significantly, then, the role of the writing center tutor as a knowledgeable peer expanded to include the sharing of *multiple* specialized knowledges—not only knowledge about the writing process, but also about the rules governing entrance to various academic discourse communities.

If this collaborative learning ethos has come to define the space and practices of the contemporary writing center, it also accounts for the troubled relationship that writing centers have often enjoyed with new technologies. For instance, in the early 1980s, writing centers were almost universally resistant to the use of drill-focused computer software to teach writing, precisely because it both tended to focus primarily on end-stage writing processes, and because it was seen as disconnected from community (see, for further discussion, Coogan, 1995; Hobson, 1998; Inman & Sewell, 2000; Palmquist, 2003). Writing center responses to more recent technologies, particularly online and networking technologies, have been more divided, however. Although the number of online writing labs (OWLs) has steadily increased over the last two decades,¹ the central question they present is still a complex and unresolved one: Do newer, networking technologies impede the kind of collaborative interactions that the writing center considers vital to learning, or do they offer us new mechanisms and new arenas for collaboration with students, perhaps more accessible than face-to-face tutorials?

In response to this central question, writing center theorists and practitioners have articulated a broad range of viewpoints over the last 15 years. Most of these claims, of course, belong to particular moments in the discussion, and are therefore not absolute, but provisional. They also obviously overlap, as it’s possible to be quite skeptical about the benefits of one technology and quite optimistic about those of another. Opinions change radically, too, as a technology develops, the context of its use changes, or the need for it increases or decreases. In surveying the history of this debate, however, we can delineate three clear perspectives on technology in the writing center community. On one side of the continuum are the views of those we might characterize as *wary traditionalists*. Few who share this conservative

¹ The International Writing Centers Association, which began posting links to “Writing Centers Online” on its organizational Web site in 2004, currently lists 138 online college and university writing centers. While the list is evidence of the ever-growing number of OWL’s, because it is voluntary, it is not a comprehensive accounting.



perspective are thorough Luddites, however. Most concede that Web-based technologies may be useful in any number of ways—for instance, in heightening the visibility of the writing center, giving it both an online face for Internet-proficient students and simultaneously appealing to what Stuart Blythe (1996) called “technology-happy administrators.” And they certainly admit the value of utilizing Web technologies to disseminate writing center instructional material and to provide links to external writing resources that student writers might find helpful. It is not surprising, then, that because even these most cautious members of the writing center community accept these technologies as beneficial that the more rudimentary form of online writing labs—static, informational OWLs—are quite common.

The traditionalist’s belief in the value of more interactive technologies—for use in actually conducting online tutorials—is far more limited, however. To the extent that they endorse them at all, these practitioners tend to see online tutorials as a supplemental form of engagement at best. In “The Electronic Writing Tutor,” for example, Joyce Kinkead (1988) was excited by the possibility that technology might offer a way to assist students who cannot make use of the writing center’s regular services due to time and distance issues. Yet she was careful to note that although online tutoring “offers an additional way for helping writers write, the electronic tutor cannot duplicate the comprehensiveness of the writing center tutorial or the value of face-to-face dialogue” (p. 5). Similarly, Michael Spooner, in a 1994 debate with Eric Crump in *The Writing Lab Newsletter*, insisted that “encountering a student over a text is best done face-to-face”:

The teacher or tutor is most helpful to the student when they create a student-centered, non-directive, response-oriented, conference-style dynamic. Call it a Rogerian presence. And it is hard enough to construct this presence in a face-to-face encounter with a student; I’d argue that it will be impossible on line for all but the most accomplished of tutors. (p. 7)

On the other side of the continuum are the views of *visionaries* in the writing center community who, as Eric Crump (1994) described in his debate with Spooner, “start from somewhat different assumptions about the future of writing, and how that future will affect writing centers” (p. 6). Crump argued that we will eventually “live in a world in which writing will tend to take place on computer networks rather than in print, and OWLs are really first steps, baby steps, towards preparing for that eventuality” (p. 6). For Crump, however, this cultural shift actually represented a fruition of the writing center’s belief in collaborative learning: “To a greater extent than is possible in print, writers in networks are *conversing* as opposed to *essaying*, and that’s a pretty significant difference when it comes to how we help writers develop” (p. 6). As J. Paul Johnson (1995) noted, these “technoprovocateurs” (a term borrowed from Crump) in the writing center community, “assume a conception of literacy that looks less tied to print culture. . . . [For them] academic literacy seems more a matter of participating in literate networks than of expressing individual thought” (n.p.). These visionaries believe, then, that writing centers should exploit the freedom of their decentralized position in academia by embracing both new technologies and a post-print age, by subverting what Johnson saw as the traditional academic insistence upon “papertext.”

Similarly, others have predicted that as our understanding of what constitutes a “text” changes, so will writing center practice. Although not a “technoprovocateur,” John Trimbur (2000) claimed that the increased use of technology is forcing us to redefine literacy “as a multimodal activity in which oral, written, and visual communication intertwine and interact” (p. 29). Consequently, Trimbur argued that writing centers will become “multiliteracy centers,” and our

work will, if anything, become more rhetorical in paying attention to the practices and effects of design in written and visual communication—more



product oriented and perhaps less like the composing conferences of the process movement. (p. 30)

It is perhaps exactly because of this radical potential for change, that Michael Pemberton (2003) asked whether writing centers “should plan to redefine themselves—and retrain themselves—to take residence in the emerging world of multimedia, hyperlinked, digital documents” (p. 9). Pemberton considered several possible responses to this question, but by way of conclusion suggested something of a strategic retreat:

Ultimately, we have to ask ourselves whether it is really the writing center’s responsibility to be all things to all people. . . . If we diversify too widely and spread ourselves too thinly in an attempt to encompass too many different literacies, we may not be able to address any set of literate practices particularly well. (p. 21)

Not surprisingly, the vast majority of writing center practitioners occupy a large middle ground on these questions, who we might call *optimistic pragmatists*. They believe that writing centers must embrace new technologies if they are to remain relevant to student writers and their needs. Yet these practitioners also know what their own daily experience tells them—although many students are indeed tech-savvy and readily adapt to new texts and new technologies, others (often the more marginalized students who seek out the writing center) are still firmly positioned on the computer-less side of the digital divide. Even Trimbur (2000), who argued that multiliteracies are inevitable, stressed that one major challenge facing writing centers in the future will be “develop[ing] more equitable social futures by redistributing the means of communication” (p. 30). Further, although these pragmatic optimists see that academic culture is itself in flux and its discourses increasingly shaped by technology, they also recognize that academia is not ready to abandon written text; academia is still largely dominated by a traditional papertext culture. Writing centers, therefore, cannot afford to adopt extreme positions of either rejecting technological advances or becoming wholesale technoprovocateurs.

What is needed instead, these pragmatic optimists have argued, are clear-sighted, judicious visions of and uses for new technologies supported by continuous research to help define best practices. In a paper presented at the Conference on College Composition and Communication in 1992, Valerie Balester envisioned a then still “imaginary” future in which communication technologies could make writing centers more truly collaborative by dispersing the authority of the one-to-one tutorial across larger writing groups committed to sharing and collaborating across texts. The tutor would become but one voice in this larger collaboration. Because the technologies used to link students would also produce written transcripts, researchers would be able to “catch far more of the interaction than ever before.” At the same time, Balester noted, “the nature of the interaction will change because of the computers, and that will be something in itself to research.” (p. 7).

Since Balester’s early 1990s presentation, pragmatic optimists in the writing center community have experimented with the pedagogical uses of technology in many ways. For instance, in a 1995 special issue of *Computers and Composition* devoted to writing centers and computers, David Coogan noted optimistically that “e-mail provides an alternative model where writers can inhabit alternative writing spaces.” Nonetheless, he ultimately concluded that, “in many ways, I don’t feel ready to recommend e-mail to writing centers” (p. 179), noting that it requires a measure of commitment to one’s writing and to the time-consuming negotiations of asynchronous communication that many students just don’t have. Yet, in 2002, only 7 years later, the International Writing Centers Association Press produced James A. Inman and Clinton Gardner’s *OWL Construction and Maintenance Guide* on disk, a self-described “CD-ROM resource created by online writing center professionals for online writing center



professionals.” Michael Pemberton was so impressed by the comprehensiveness of this collection that in 2003 he claimed that there may be little need for further work in this area “for quite some time” (p. 14).

Clearly, Balester’s “imaginary writing center” of 1992 has been re-envisioned and recreated many times by pragmatic optimists within the writing center community, and there is no evidence that their efforts are slowing.² The majority of writing center professionals remain committed to exploring and exploiting technology to enhance student learning. But these efforts are still largely shaped by their steadfast belief that student learning is about connection to, and collaboration within, community. For this reason, writing center practitioners continue to privilege the face-to-face tutorial. It is in the live, side-by-side exchanges of tutor and student that writing center professionals see community operating most fluently and fluidly. For them, the intimacy of the physical space of the tutorial, at least potentially, is mirrored in an intimacy of interpersonal communication.

Within the workings of a live tutorial, both tutor and student have ready access to a complex body of information encoded in a range of communicative acts—the written text being shared, the conversational exchanges that take place, the displays of body language—all of which are more easily read and interpreted face-to-face. Should uncertainties arise for tutor or student, the potential for immediate clarification always exists in live conversation. The tutor can readily adapt to both cognitive and affective responses in the student (comprehension and excitement, confusion and frustration, etc.), and the student finds a sense of safety and trust in the immediate, personal attentions of a “knowledgeable peer,” in a relationship that makes it easier to share, shape, and further explore ideas. As suggested in the philosophical overview above, writing center practitioners hold very ambitious goals for the writing center tutorial. It is a space where knowledge is collaboratively constructed through the shared authority of peers. Phyllis Lassner (1994) characterized the face-to-face tutorial as a space in which “neither the tutor nor tutee are designated as subject or object, but enact a fluid process of selves” (p. 158).

Such personal exchanges are significantly complicated in technologically negotiated tutorials. Unlike the face-to-face session, there is both the problem of access to technology and an initial learning curve to overcome; both tutor and student must have the resources to become technologically adept. Further, the roles and communication practices of both tutor and student will be altered by the nature of the technology itself. In the asynchronous online tutoring (via email) that began to appear in the 1990s, for example (which represented the next step in OWL development—from the informational to the interactive), tutor and student existed only in text, and their textually encoded “conversational” exchanges of necessity spread out across days, rather than the minutes required in a live tutorial. Coogan (1995) attempted to argue for the benefits of these radical transformations. Email tutoring, he claimed, allows for more honest and open exchanges than are possible face-to-face, allows the tutor and student more time to consider and respond, allows for more questioning of each other’s ideas and opinions, and enables an “invigorated” tutorial in which the “social energy of reading a person” is directed into “the reading of a text” (pp. 176–179).

As noted above, however, even Coogan himself seemed finally unconvinced of his own arguments. For the writing center community, the positive affordances of asynchronous, email tutoring did not fully and finally outweigh the negatives. Collaborating via written text is

² Recent discussions on WCenter, the email discussion list of writing center professionals, reveal a current, evolving interest in synchronous online tutorials, and the various technologies that might best enable them, such as Wimba, AskOnline, WCOOnline, Adobe Connect, Skype, Blackboard, and even virtual writing centers in Second Life.



cumbersome and demanding work, requiring a far greater investment of time, a precious resource in most writing centers as well as in the lives of student clients. And miscommunications and misreadings are both far more likely and more difficult to remedy. Further, it is not only writing center professionals themselves who judge asynchronous communications less desirable. Despite the apparent convenience of asynchronous tutorials for students (e.g., not having to come physically into the writing center, being able to work on one's own schedule), usage rates in most writing centers reveal that, given their choice, students prefer live tutorials over the email tutoring available through many OWLs. Asynchronous tutoring thus remains, as Joyce Kinkead predicted in 1988, primarily only a supplement to live, face-to-face tutorials. Time will tell whether newer, synchronous technologies will fare any better, but the experience of writing center professionals to date suggests that the litmus test of viable and sustainable information and communication technologies continues to be whether or not they enhance community and communal functions. The doubts of the wary traditionalists, the soaring aspirations of the visionaries, and the steady investigations of the optimistic pragmatists continue to revolve around this central concern.

CAN YOU HEAR ME NOW? THE MUFFLING OF COMMUNITY

With this as our disciplinary backdrop, we—both of whom consider ourselves optimistic pragmatists with perhaps visionary leanings—now move into specific stories of our writing centers as we have negotiated particular technologies and laid them side-by-side with what we know of best practices in writing centers. The four stories we tell include (1) a discussion of teaching a "Tutoring Writing" seminar as a distance-education course; (2) one perspective on the benefits of a course-management system for tutor development and training; (3) a different perspective focusing on the drawbacks of a course-management system; and 4) a discussion of navigating asynchronous and synchronous online tutoring. We tell these stories to further illustrate the ways in which communication and information technologies can either disrupt or enhance, upset or sustain, a community of writers and writing center practitioners.

Story 1: Distance Education

Several years ago, the directors of the various writing-support services (writing centers, academic skills centers, etc.) on all eight of Kent State University's campuses formed a new committee as a venue for collaboration and the sharing of resources. Because our eight campuses differ widely in size and resources, Jay was asked by the group if he'd be willing to share his "Tutoring Writing" course with campuses unable to offer such a tutor training course themselves. He agreed, and in both fall 2004 and fall 2005, "Tutoring Writing" was offered as a distance-learning course across multiple KSU campuses.

From the start, Jay was concerned that community-building be a central aspect of his course. Becoming a good tutor requires not only exposure to the extensive scholarship of writing center theory and practice, but also continuing opportunities to collaborate with peers—discussing tutoring concepts, sharing tutorial experiences, brainstorming, problem-solving, and mentoring. A long-time believer in the primacy of face-to-face collaborations, Jay was anxious to find technologies that would foster, as much as possible, the live exchanges of his class community. Thus, after reviewing the various distance-learning technologies available at Kent, he chose to use V-Tel, a room-based video-conferencing system. Reasoning that a pure Web-based course could not offer much peer-to-peer interaction beyond that possible in discussion boards and email, he rejected that option. And although Learn-Linc, a PC-based video-conferencing system, would allow students to see and hear the instructor, there were no opportunities for students to interact with each other beyond those found in a Web-based course. That left V-Tel.



V-Tel is, of course, an “old” technology. It emerged in the late 1980s and was picked up widely at institutions with satellite locations or regional branch campuses as a means of offering a wider array of courses and instructors to a larger body of students than could be had otherwise. A room-based system, V-Tel utilizes a central station from which the instructor can control the video broadcast, switching from live camera feed, to videotapes/DVDs, to transparencies, to computer files, or to the Web. Each V-Tel lab at each campus location has, in addition to such a station, two large video monitors, one showing the instructor (or other media on display) and the other showing, at any one time, one other V-Tel lab on one other campus. Two large video cameras are located in the room: one at the back focused on the instructor, and the other in the front focused on the classroom. Students have access to individual computers and microphones. A student with a question or comment can tap the microphone, and the large camera in the front of the room automatically pivots to focus on that student, broadcasting image and voice to the other campuses.

Jay was hopeful that the technology would enable communal functions, despite the obvious difficulties. One problem was the logistical issue of how to distribute course materials across remote campuses; in addition to V-Tel, Jay chose to use Web CT Vista as a course-management tool. Jay developed an extensive Vista site that would allow student Web access to course materials from the regional campuses as well as from their homes. On the site, Jay posted folders filled with a wide range of content: “Welcome and Tech Support,” “Course Syllabus and Calendar,” “Course Handouts and Assignments” (as Microsoft Word files); “Course Readings” (as PDFs); and a “Research and Resources” folder filled with links to writing center-related research databases, Web sites, and conferences. Students’ final research projects were also posted to the site, making it a course archive as well. Jay also added interactive elements, including weekly threaded discussions and internal email accounts for student use. Although he struggled with it for two semesters, Jay ultimately concluded that the V-Tel technology was, despite its apparent connectivity, ultimately inimical to the functions of community building and the goals of writing center pedagogy.

The technology was unreliable; on more than one occasion, the electronic bridge between campuses failed, interrupting class sessions as technicians struggled to reestablish the link. And, at least once, they were unable to reconnect, effectively ending the class session altogether. Another issue was the quality of the video and sound. The camera images of the lab classrooms were fuzzy and dim; it was very difficult to distinguish which student was speaking, especially because the camera tracked so slowly that a student would often be finished with a comment before the image came into focus. Exasperatingly, there was also a 2-second lag in sound, generating many apparent interruptions when more than one person attempted to speak. Because students on the various campuses could not see or hear each other clearly, they couldn’t take turns as they would have in a regular classroom. One of the most frustrating aspects of the V-Tel classroom was the inability to monitor the various classrooms effectively. Only one lab was visible at a time, and because cameras were microphone-activated, Jay could not even select the lab to show on screen. The degree to which this technology complicated and interfered with social interactions quickly came to be seen as *the* mark of its failure by the students and instructor alike. Students did not perceive the V-Tel classroom as “real,” despite the fact that they did indeed meet in “physical classrooms”—the V-Tel labs on each campus. Something essential was clearly missing.

One student noted, “I really do not like V-Tel. It diminished my learning. I can only imagine how it would have been if you were here teaching [the entire semester] instead,” seeming to indicate that the physical presence of the instructor would have made a vital difference in the experience. In anticipation of this problem, Jay had actually traveled from campus to campus through much of the semester, broadcasting from a different location each week and trying to bolster a sense of community as he went, but this seemed only to highlight the problem. One student claimed, “when you visited the class and when we talked in person, it gave me a



better feeling about what was happening in class. During a normal class session, it seemed dry and stalled most of the time due to the lack of student–teacher interaction.” Another said, “frankly, I disliked the technology used. I felt disruptive asking questions and it felt ‘clunky.’ [Class] was so good when you were here; we could all converse without having to chime in on the microphones. The V-tel created minor confusion and you felt far away.” In the V-Tel classroom, then, conversation—the lifeblood of community—had become difficult; V-Tel muffled and obscured it. And, as a result, student learning was diminished, and their willingness even to ask for clarification ebbed. As their sense of community dissipated, with it went the sense of being seen, heard, or valued. As one student commented, “it is really hard for me to participate the way I would like, and it is not intimate at all.”

As student word of mouth darkened, Jay found that the use of V-Tel technology not only failed to foster the multi-campus, KSU-wide tutoring community he was trying to establish, but it also disrupted his own writing center community on the Stark campus. In the years prior to the change to distance learning, Jay’s enrollment in the Tutoring Writing class on his campus averaged 10–12, a strong showing which ensured that his writing center would continue as a vital community. During fall 2004, the first year of the distance-learning offering, that number dropped to 6, and by the second year, to only 4. Jay found it increasingly difficult to recruit students to the course, and thus the future of his own campus writing center was put at risk.

For these reasons, Jay finally abandoned the distance-learning version of his course. Although he knows that students still gained something from his course, he now knows as well that the true functions of community are not easily emulated via V-Tel technology. Luckily, the negative effects on his writing center community were temporary. Jay’s tutoring writing class rebounded quickly, with 11 students in the class in fall 2006, and 11 registered for fall 2007. He regrets that he is no longer able to offer the course to students working in writing centers on the other Kent campuses, but is satisfied that, in his class and in his writing center at least, community is once again operating fully, richly, and effectively.

Story 2: Course-management Systems: One Perspective

Had Jay not attempted teaching via the V-tel system, he would not have discovered the value of another technology, one initially adopted to play only a minor, supporting role. Not only did the Web CT Vista course-management system help resolve some of the student confusion created at the outset by V-Tel, it has also proven remarkably helpful to students even now that the Tutoring Writing course is limited to Jay’s campus. Students remain consistently enthusiastic about it, and continue to see its value in supporting their community. As one student noted, “I think that Vista is an excellent external source. It is a well organized Web site that we can go to when confused.”

Having this Web-based course-management system allows for the flow of information within the community, particularly the posting of course materials, which are then always available to students. Students have even asked to retain their access to the site even after the course has ended. As they continue to develop as tutors, and as undergraduate researchers in the writing center, they frequently revisit the site to consult readings and other resources. Jay has had former students, now in graduate school at other universities, ask to renew their access. Under continual development for several years now, the site has become a substantial archive of tutoring-related materials, not the least of which are student research projects. These offer new tutors an important pool of student work to help guide their growth as tutors, and their emerging research agendas as well.

Further, within the confines of the course, the internal discussion function on Vista creates an interactive space for tutors to “talk” about readings, about tutoring, about course projects, and



about whatever is on their minds. Jay asks for a volunteer discussion leader to both initiate and wrap-up a tutor discussion each week, allowing for more student control over the conversations than can usually be found in standard, instructor-mediated classroom discussions. Also, because these discussions are threaded, students have no difficulty revisiting (or even reopening) specific conversations held earlier in the semester. Additionally, though they are no longer in the course themselves, senior tutors in the writing center retain their access to the site, and they, too, are invited to listen in and contribute to ongoing discussions. In this way, the conversations occurring on the site parallel and extend the live conversations actually occurring in the center itself. Here, too, the text of these ongoing discussions can be kept across semesters and years as a living archive of useful student thinking about tutoring.

The internal email accounts provided on the course-management site have also proven to be an enormous asset in sustaining efficient communications within the class community. Because the site accounts are separate from students' university accounts, they are not subject to the server space restrictions that constrain their regular email. Students and the instructor can exchange emails with sizeable attachments without the problem so often encountered with external student accounts: bounced emails and "over quota" error messages. Further, because these accounts lie behind the restricted access of the site, they are more easily kept free of clutter and spam. Vista email is thus more efficient and focused. What is clear about Jay's use of the Vista course-management system is that, unlike V-Tel, it is supportive of communal functions, and for that reason, it has proven to be an easily sustainable technology. In many ways, it extends the exchanges and conversations of the community, making the discussions even more fluid, flexible, and efficient than they are in face-to-face communications alone.

Story 3: Course-management Systems: A Different Perspective

An early adopter of various technologies in the classroom, Jeanne tried to extend her success with the university's course-management system to the writing center. Although a writing workshop classroom has many elements in common with a writing center, it is a very different social ecology. A writing center is more self-consciously cooperative than most classrooms, authority is very deliberately shared, and knowledge is constructed collaboratively as student-tutors work with student-clients. Ellen Strensky (1995) noted that a director's role in relation to the tutors with which she works is multifaceted and complex, characterized by the "quasi-pedagogical, quasi-administrative activity of staff development" (p. 247) that lends itself well to electronic communication. Neither wholly instructional, wholly collegial, nor wholly administrative, digital communication technologies can contain elements of all three roles. The director's most important function is as a coach and resource person to support tutors, and this relationship must be mirrored in the online world. Learning about her own role in the social ecology of the writing center has allowed Jeanne to use an online workspace effectively, but not without a false start.

Given the ubiquity of online communication and social-networking software—IM, MySpace, LinkedIn, Facebook, Ning, Flickr, YouTube, and more—in students' lives; knowing that communicating and networking is arguably how students use the Internet most; and knowing that collaboration is at the heart of writing center work, Jeanne tried to use the available campus technology, the Web CT course-management system, as a way to network tutors efficiently. Even before meeting her tutors, she created a staff work space in the course-management system, with areas for discussions, chats, tutor-development resources, access to important forms and handouts, links to instructor course materials, and a calendar of events. Thinking that reducing the number of face-to-face meetings would make collaboration



easier for her time-pressed staff, she replaced every other weekly face-to-face meeting with an asynchronous virtual staff meeting inside the discussion tool in the course-management system.

At first, the response to the virtual meetings was positive; online discussions were robust and multi-layered, with topics ranging from how to break the ice in a session with a reluctant writer, to revising the writing center's Web pages, and even to creating a writing center T-shirt design. Over time, however, tutors began to perceive the face-to-face staff meetings as optional because there was an online space for discussion. Then, as the novelty of the new writing center Web space began to fade, so did participation in the virtual discussions held in the course-management system.

But this doesn't mean that tutor interactions ceased to occur. Rather, the tutors' online interactions through instant messaging, email, social-networking software, and even cell phones outside of the writing center were simply more appealing than any course-management system the university could provide. Much as a writing center director is a curious hybrid of teacher, boss, and administrator, undergraduate writing center tutors are curious hybrids—neither wholly teachers nor wholly students. Because peer tutors must negotiate this in-between identity, the peer-to-peer influence in writing center work is very strong. Top-down models of management and technology use violate the dynamics of the peer-to-peer mentoring network. The tutors adopted their own approaches to using information and communication technologies outside of the context originally created within the course-management system.

After looking closely at the mentoring relationships that characterized the tutors working in the writing center, Jeanne learned not only that online discussions failed to create the collaborative atmosphere she wanted, but she also learned that even regular staff meetings could not do that. The collaborations she wanted to occur happened, instead, in the daily face-to-face working and social relationships among the peer tutors, which were then reinforced in meetings. Teachable moments happen in a writing center whenever a tutor encounters a situation that seems new to her, and she turns to fellow tutors and to the director for help. The ways tutors interacted with each other and with Jeanne in the writing center were much more natural and collaborative than anything online or even face-to-face meetings could duplicate, and they had the advantage of being in the moment and emerging when and as needed. The technologies Jeanne used needed to support those relationships and the collaboration already present.

Because the course-management system has tracking features, Jeanne could analyze which parts of the electronic workspace were used, by whom, how often, and when. Looking at how the tutors actually used the Web space showed that they valued the online space for their own purposes: catching up on discussions they missed, recalling what was decided at a meeting, accessing important archived documents, and locating support resources. Jeanne decided to follow the online needs of her staff as she did in her center—by behaving online more as her social role as a coach and mentor-to-the-mentors dictated, by providing what tutors needed, in the moment. Jeanne was right to believe that the tutors were quite comfortable interacting and maintaining community online. But she needed to use the technology they most wanted to use and were already incorporating into their daily lives to support the community building that was already going on, and to find ways to extend and enhance it.

Prior to Jeanne's creation of the staff online workspace, the writing center did not have ready access to writing program instructors' syllabi and assignments, and it did not have a large repository of resources for tutors to consult when working with clients, an organized archive of meeting notes, tutor development handouts, workshop materials, or a repository for tutor-created projects that everyone in the writing center could access at any time. Tutors needed



access to this information to work with clients as collaborative partners, and to model information-gathering and problem-solving. The ability of the course-management system to organize resources and make them available at any time made it a valuable tool in the writing center—one that the tutors turned to frequently in sessions and on their own. Even as the use of the online discussion space for virtual meetings slowed, the use of the archived discussions and resources grew.

Jeanne now uses technology to support, enhance, and extend the activities of her writing center. Meeting twice a week with her staff to make sure everyone has access to one weekly face-to-face meeting, she posts all meeting materials on the course-management system, and discussions continue between meetings in the online space. This use of technology enhances an important goal of keeping the staff in communication, and sustains a sense of community that starts in the daily work of the writing center, develops in the weekly meetings, and extends itself between meetings through technology.

Just as tutors need to learn to occupy a curious hybrid identity between student and instructor, Jeanne needed to learn how to be a coach to coaches, and to occupy her hybrid identity online and in the physical space of the center. Failing to understand the middle ground of the cross-space social relationships is what caused Jeanne to misapply a technology in a traditional top-down manager mode. Jane Nelson and Cynthia Wambeam (1995) pointed out that “instructional computing demands a far different relationship between people and technology than does administrative computing” (p. 138). Because writing center directors straddle the instructional and administrative worlds, we can provide insight into the ways people use technologies across these spaces.

Story 4: Asynchronous versus Synchronous Online Tutoring

Our last story briefly examines some approaches to online tutoring, but because work with online tutoring recalls the historical positioning of writing centers as fix-it shops, we must first provide a bit more background to introduce the issues surrounding asynchronous and synchronous online tutoring. Since their inception, writing centers have struggled to define themselves as collaborative spaces for conversations about writing, rather than as proofreading repair stations, where students passively wait to have their texts “checked” for “correctness.” Stephen North (1984) rallied the writing center community when he said, “our job is to make sure that writers, and not necessarily their texts, are what get changed. . . our job is to produce better writers, not better writing” (p. 438). And, fortunately, over time, writing centers have successfully shed the campus image of drop-off editing services.

But, as we see it, online writing labs have renewed this struggle for many writing center directors, with many writing centers working hard to avoid constructing their online spaces as mere handout-delivery services, and many writing center directors struggling to craft ways for online tutoring to be as rich and conversational as face-to-face tutoring. At the same time directors see the potential of email, for instance, to improve student access to writing center tutors, we also see the potential to move backward in our pedagogy even as we move forward with technology. Muriel Harris (2000) articulated the problem this way:

the invitation to students to engage in e-mail tutoring seems to bring with it the student tendency to ask a grammar question that reduces tutoring to grammar fixing, the Band-Aid approach to healing wounded grammar that writing centers battle against. Equally prevalent in having an e-mail service is the tendency for students to e-mail a paper with no accompanying contextual information about the assignment or the student’s concerns. (p. 198)



Tutors, as well as clients, are affected by the limitations of asynchronous technology. Even the most experienced tutor may struggle to interact with a client who is not physically present. Because an email-based OWL, according to Nelson and Wambeam (1995), has “only a limited capability for synchronous writing. . . the chances for this kind of conversation evolving into requests for editing seem high to most Writing Center staff” (p. 139). At Jeanne’s campus, a review of the tutor–client exchanges on her center’s email-based OWL showed that, without extensive training and retraining, even the best tutors found themselves editing student texts in email much more than they did in face-to-face sessions.

As technology has progressed, many newer options for collaborating online have emerged: chat, videoconferencing, voice-over-IP services, and virtual meeting software. The new tools seem to promise a way to provide online support for collaboration and learner-centered pedagogies. Harris and Michael Pemberton (1995) foresaw the potential of such real-time interactive technology:

Synchronous chat systems *are interactive, realtime* systems. Depending on the sophistication of the technology involved, students and tutors can converse electronically, view a draft on screen, and/or share files and references online with one another as they collaborate. Again, depending on the sophistication of the technology available, it is foreseeable that several students and/or tutors could link simultaneously, all working on the same document in different ways. (p. 153)

Understandably, these now-available features are attractive because synchronous communication seems closer to a face-to-face meeting than asynchronous email exchanges. Jeanne’s writing center began to experiment with one such system, hoping to link tutors at the Kent campus to clients at a regional campus during times when the regional campus writing center experienced overload. The application’s impressive array of features included live video, audio, chat, and a shared desktop. In theory, it permitted the very interactions most valued in a writing center session. In practice, however, the software was difficult to install and maintain, poorly documented, and counter-intuitive.

Tutors tested the system over an academic year, wrote their own documentation manual, trained a core staff to run the virtual writing center, gained the enthusiastic support of a regional campus writing center director, and launched a marketing campaign to publicize the new OWL to students on the regional campus. However, more than a year after starting the project, not one student at the regional campus had used the new OWL. The regional campus students wanted more face-to-face-tutoring time with local tutors, not a computer link to remote tutors. In addition, because Jeanne’s campus was exploring other collaborative learning tools, and the package she had worked to develop could potentially lose its institutional support, she suspended the original project while investigating other interactive options. The center has returned to email tutoring with a renewed emphasis on continual staff development so as to ensure that asynchronous sessions remain focused, as North (1984) urged, on the writer and not the writing.

Tutors can learn to interact in email in ways similar to conversations in the writing center. According to David Coogan (1995), email tutoring, “another form of facilitative commentary, stresses the same idea of engaging the writer in a conversation—to open writing rather than to close it” (p. 176). Rather than using the commenting feature of word–processing software to mark up a text, a tutor might use the highlighting tool and refer to sections of the text in his open-ended questions in an email to the student. He might place fewer, directive comments in the text itself (or perhaps none at all), and instead ask leading questions of the writer in the email, opening the client to possibilities, and engaging conversation about his writing. “By turning their papers into acts of communication,” Coogan (1995) claimed, “e-mail can give



students a genuine audience to break down the barriers between academic writing and conference talk” (p. 179).

When training focuses on helping tutors recognize the differences between an editing session and a collaborative conversation over a piece of writing, it matters less whether that exchange takes place across a table or through email. The successful social ecology of the writing center and its ethos can be extended across time and distance by an older asynchronous technology, something the failed synchronous project did not accomplish on Jeanne’s first attempt. This does not mean Jeanne will cease to investigate the potential of synchronous technologies for use in the center’s OWL, especially as synchronous collaborative technologies are becoming more prevalent, institutional support for them is blossoming, access is (slowly) increasing, and student interest and comfort levels with such technologies is rising. Institutions are investigating, and investing in, online collaboration tools as they never have before, and our choices will improve dramatically in the very near future. At Jeanne’s campus, writing center staff have applied for grant funding to explore various new initiatives, including reviving the synchronous OWL project with an alternative software product. The difference now is that Jeanne approaches the OWL project understanding the user community’s needs; she applies for external funding, so that the development of the OWL does not drain the writing center’s already stretched resources; and, perhaps most significantly, she incorporates continual assessment of the project to examine how the technology impacts the social ecology of the writing center. This approach can be a heuristic for others, and perhaps can help to avoid expensive, disheartening false starts.

ASKING THE RIGHT QUESTIONS TO PILOT COMMUNITY-APPROPRIATE TECHNOLOGY

Because writing centers traditionally work with the most marginalized learners on campus—people with disabilities, people who do not have easy access to the latest technology, and people for whom English is a second language—our sensitivity to the marginalized makes us think, perhaps more than most people on campus, about the technological winners and losers, and to refuse to exclude learners as we move forward.

As we investigate new tools and pilot new initiatives, we all need to remember the lessons of the writing center. Technology needs to be simple for users and accessible. Without that simplicity, technology—regardless of what it has the potential to accomplish—can function as a barrier to rather than a path of access. As writing center professionals who specialize in collaborative learning and in serving a diverse campus population, we think our voices are important in campus conversations about technology. As higher education focuses on becoming more learner-centered, and further explores the potential of collaborative technologies, the people who specialize in the dynamics of collaborative learning can provide leadership.

It is imperative that those implementing new technologies understand the social ecology of the community that will use it. As Blythe (1997) noted, “we need ways to continue to work with technology without feeling that we are trapped into a choice between accepting whatever comes our way or remaining adamantly anti-technological and thereby running the risk of falling behind” (p. 102).

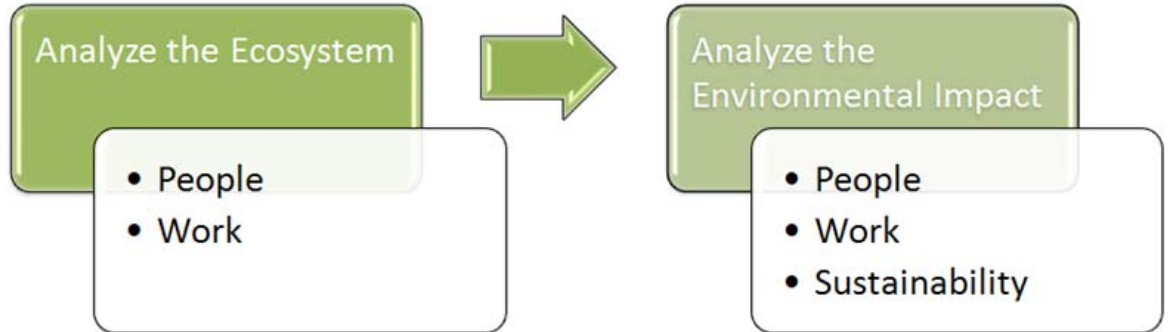
Looking critically about when, how, and why some of our best efforts have failed, and analyzing the common elements of our successes has taught us a great deal. Now we would never ask questions we used to ask: What technology is available to me? Or, How can I use this new technology in my work? Or, What is the newest technology available, and how can I train my people to use it? Instead, we ask ourselves, What are the core functions in my

group? What are the most important collaborative relationships in my community? What is the simplest, most sustainable, way to support them with technology?

When we think about technology now, we use a decision-making process. If we had thought about our uses of technology in this way before we made our mistakes, we both might have avoided some technological failures, and experienced more success from the start. It seems to us that a number of important questions should be asked *before* specific technologies are considered. When evaluating a new technology, these questions must be continually revisited. Our decision-making heuristic and sets of key questions appear in Figures 1 and 2 below.



Figure 1. Decision-making heuristic.



Analyze the Ecosystem		Analyze the Environmental Impact	
<ul style="list-style-type: none"> • Who are the people in the community? • What are their relationships to each other? • How does each relate to people outside the community? • What roles or functions do different group members play? • What work or knowledge does the community produce? 	<ul style="list-style-type: none"> • What makes the community a success? • What current modes of communication and/or collaboration do members use? • What are the needs of the people in the community? • What technologies are accessible to the people in the community? 	<ul style="list-style-type: none"> • How natural will this technology be to those who will use it? • For whom is access to the technology a barrier? Why? • How will the technology support what you do and what you value most in what you do? 	<ul style="list-style-type: none"> • What existing interactions and collaborations will this technology support or enhance? • What new interactions and collaborations will the technology make possible? • What alternative means exist to support and enhance these interactions and collaborations?
How will you maintain and support the technology?			

Figure 2. Technology-integration decision-making.

It is not enough to ask questions about the community before adopting a particular technology. We need to assess our efforts, change as needed in response to the community, and build upon successes. It is unrealistic to expect technological solutions to materialize complete with support personnel, and for those technologies to stay in place and remain functional



indefinitely. Understanding both why technologies fail and why they succeed should inform institutional support allocated to new technological initiatives. If a technology is imposed on a community as a top-down decision or if a technology is adopted without first understanding the interactions and collaborations within the community, it will fail, even when the motivations seem valid and the tools seem appropriate. On the other hand, if the community that will use the technology is well understood, if the community has a use for the tool that fits with its own theories and modes of working, and if the technology adopted can be supported by that community from the inside, it will succeed—even if it is not the newest, most-sophisticated technology available.

For example, similar to Jay's use of the V-Tel classroom, Jeanne accepted the technology her university offered without considering it critically in relation to the people who would use it. As Cynthia Johaneck and Rebecca Rickly (1995) cautioned, "using this available technology in a writing center merely because it is available is a dangerous application of an otherwise valuable tool" (p. 244). The kinds of tutor–client interactions Jeanne valued could not take place using software that functioned as a barrier to the very students she was trying to reach. We must strive to understand what users need, and search for the tool that accommodates those needs. We should never accommodate our writing centers—or our most-valued best practices—to any particular tool for the sake of the tool itself.

We think it is better to use an imperfect technology that is accessible and under our control than to invest time, energy, and expense in more sophisticated technologies that we may be forced to abandon, or that are too difficult for users to adopt. We have learned not to reject new technologies, but to approach them more cautiously and on a smaller, pilot-project scale while continuing to enhance our use of familiar technologies through continuous training. Staff training is within our control whereas the campus network and the software selected to populate our servers, many times, are not.

Technology can be empowering and it can be marginalizing. As Blythe (1997) noted, "the trajectory of its development is not fixed, but ambivalent. It can follow several paths. The purpose of critical theory is to affect technological development so that it follows more democratic, empowering paths, and this should apply to education as well as to industry" (p. 104). Examining successful and unsuccessful applications of technology in a writing center—because of its focus on interaction and collaboration, and its focus on marginalized populations—highlights how technology and community intersect in an academic setting. Our continued efforts to develop small pilot projects in our writing centers, to assess by collecting feedback from users along the way, to adjust in response to user needs, and to publicize successes will all contribute to growing sustainable technologies on our campuses and will, we hope, help those on other campuses to imagine, theorize, and implement sustainable technologies.



REFERENCES

- Balester, Valerie M. (1992, March). *Transforming the writing center with computers*. Paper presentation at the meeting of the Conference on College Composition and Communication, Cincinnati, OH.
- Bartholomae, David. (1995). Writing with teachers: A conversation with Peter Elbow. *College Composition and Communication*, 46, 62–71.
- Berlin, James. (1988). Rhetoric and ideology in the writing class. *College English*, 50, 477–494.
- Blythe, Stuart. (1996, Spring). Why OWLs? Value, risk, and evolution. *Kairos: A Journal of Rhetoric, Technology, and Pedagogy*. Retrieved April 23, 2007, from <http://english.ttu.edu/kairos/1.1/owl/owlfront.html>
- Blythe, Stuart. (1997). Networked computers + writing centers = ? Thinking about networked computers in writing center practice. *Writing Center Journal*, 17 (2), 89–110.
- Bruffee, Kenneth A. (1987). The art of collaborative learning: Making the most of knowledgeable peers. *Change*, 19, 42–47.
- Bruffee, Kenneth A. (1995). Peer tutoring and the “conversation of mankind.” In Christina Murphy & Joe Law (Eds.), *Landmark essays on writing centers* (pp. 87–98). Davis, CA: Hermagoras Press.
- Buck, Roberta R., & Shumway, David. (2002). More talk, less fix: Tutor training in a facilitative online response pedagogy. In James A. Inman & Clint Gardner (Eds.), *The OWL construction and maintenance guide*. (CD-ROM). Emmitsburg, MD: IWCA Press.
- Coogan, David. (1995). E-Mail tutoring, a new way to do new work. *Computers and Composition*, 12, 171–181.
- Crump, Eric. (1994). Some thoughts on Michael Spooner’s thoughts. *Writing Lab Newsletter*, 18 (6), 6–8.
- Flower, Linda. (1979). Writer-based prose: A cognitive basis for problems in writing. *College English*, 41, 19–37.
- Harris, Muriel. (1989). Composing behaviors of one- and multi-draft writers. *College English*, 51, 174–191.
- Harris, Muriel. (2000). Making up tomorrow’s agenda and shopping lists today: Preparing for future technologies in writing centers. In *Taking flight with owls: Examining electronic writing center work* (pp. 193–202). Mahwah, NJ: Lawrence Erlbaum.
- Harris, Muriel, & Pemberton Michael. (1995). Online writing labs (OWLs): A taxonomy of options and issues. *Computers and Composition*, 12, 145–159.
- Hobson, Eric. (Ed.). (1998). *Wiring the writing center*. Logan: Utah State University Press.
- Inman, James A., & Gardner, Clint. (Eds.). (2002). *The OWL construction and maintenance guide*. CD-ROM. Emmitsburg, MD: IWCA Press.
- Inman, James A., & Sewell, Donna. (2000). *Taking flight with OWLs: Examining electronic writing center work*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Johanek, Cynthia. & Rickly, Rickly. (1995). Online tutor training: Synchronous conferencing in a professional community. *Computers and Composition*, 12, 237–246.
- Johnson, J. Paul. (1996, Spring). Writing spaces: Technoprovocateurs and OWLs in the late age of print. *Kairos: A Journal of Rhetoric, Technology, and Pedagogy*. Retrieved April 23, 2007, from <http://kairos.technorhetoric.net/1.1/owl/johnson.html>



- Kinkead, Joyce. (1988). The electronic writing tutor. *Writing Lab Newsletter*, 13 (4), 4–5.
- Lassner, Phyllis. (1994). The politics of otherness: Negotiating distance and difference. In Joan A. Mullin & Ray Wallace (Eds.), *Intersections: Theory-practice in the writing center* (pp. 148-160). Urbana, IL: NCTE Press.
- Nelson, Jane, & Wambeam, Cynthia. (1995). Moving computers into the writing center: The path to least resistance. *Computers and Composition*, 12, 135–143.
- North, Stephen M. (1984). The idea of a writing center. *College English*, 46, 433–446.
- Palmquist, Michael. (2003). A brief history of computer support for writing centers and writing across the curriculum programs. *Computers and Composition*, 20 (4), 395–413.
- Pemberton, Michael A. (2003). Planning for hypertexts in the writing center. . . or not. *Writing Center Journal*, 24 (1), 9–24.
- Perl, Sondra. (1980). Understanding composing. *College Composition and Communication*, 31, 363–369.
- Sommers, Nancy. (1980). Revision strategies of student writers and experienced adult writers. *College Composition and Communication*, 31, 378–388.
- Spooner, Michael. (1994). Some thoughts about online writing labs. *Writing Lab Newsletter*, 18 (6), 611–618.
- Strensky, Ellen. (1995). Virtual staff meetings: Electronic tutor-training with a local e-mail listserv discussion group. *Computers and Composition*, 12, 247–255.
- Trimbur, John. (2000). Multiliteracies, social futures, and writing centers. *Writing Center Journal*, 20 (2), 29–32.