Computers and Writing Centers
A Selected Bibliography

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THOSE WHO HAVE WORKED IN WRITING CENTERS FOR MANY YEARS MAY REMEM-ber when their centers received a handful of Apple IIes or IBM PCs with a pair of 5$\frac{1}{2}$-inch floppy disk drives, no hard drive, and an impressive (at the time) 256 kilobytes of random access memory. As the scholarship that chronicles the marriage of computers and writing centers illustrates, many writing center directors did not at first know what to make of computers—or how to use them. Often, directors used the machines to keep records of student traffic, to give computer-assisted instruction in the form of grammar and syntax drills or, at best, to introduce student writers to word processing. The articles and essays from this time—the late 1970s to the mid-1980s—are pragmatic, consisting of hardware and software reviews, advice on how to set up a user-friendly computer lab, or sometimes hostile backlashes against the new technology as counterproductive to the writing center mission. In his 1979 *Writing Lab Newsletter* article Richard C. Veit compares and contrasts human and machine-assisted instruction (i.e., auto-tutorial programs) and comes down on the side of "humanistic labs." Of human tutors, Veit says, "even without training, they have more to offer students than the programs and machines" (2). In a 1987 *Writing Center Journal* issue dedicated to computers, Fred Kemp likewise challenges the notion that computers can or should replace the human tutor.

Even as writing center practitioners grew comfortable with computer technology, maintaining the human element in writing center interactions continued to be a central concern. By the late 1980s few scholars were advocating computer-assisted skill and drill programs. Instead, most sought to understand how computers impacted student writers' composition processes and how best to facilitate the writers' efforts. In a 1987 *Writing Center Journal* edition dedicated to computers, Pamela B. Farrell portrays the computer as neutral ground on which student and peer tutor negotiate a more fruitful collaboration. In the same issue of the journal, Jeanne Luchte examines the computer's role in student writers' prewriting, organizing, and drafting processes.

As free-standing computers with limited memories gave way to networks, the relationship between writing centers and computers continued to evolve. A few writing centers, including Joyce Kinkead's at Utah State University, began experimenting with the interactive possibilities that electronic mail offered. In a 1987 *College Composition and Communication* article, Kinkead notes the benefits of this approach to tutoring, including convenient, 24-hour-a-day access to assistance for nontraditional, shy, or fearful students who find it difficult to visit the writing center during operating hours. Since then, such innovations in computer technology as the World Wide Web have brought corresponding innovations in writing center design and practice. The most noteworthy, perhaps, was the creation of the online writing lab at Purdue in the early 1990s. Other OWLs soon followed, providing assistance ranging from online handbooks to consultations with cyberspace tutors. These consultations which began as asynchronous conversations (e.g., with the student submitting a text or question at 2 a.m. and the tutor replying at a more civilized hour) have in some cases become synchronous (or real-time) conversations in a virtual writing center located in a Multiple-User Dimension (MUD) or MUD-Object Oriented (MOO). As Muriel Harris says in a 1995 interview published in *Composition Studies*, "Writing centers have been incredibly inventive about reaching out. They're student-centered environments, and the *Writing Lab Newsletter* is filled with articles describing various writing centers that have inaugurated innovative activities" (Mullin 39).

As in the days when computers and writing centers first intersected, the introduction of OWLs, MUDs, and MOOs to writing center operations in the 1990s has brought an abundance of scholarship that ranges from enthusiastic acceptance of these new tutoring venues (and advice on how to set them up) to pieces that caution about pedagogical and ethical perils that cyberspace tutoring can pose (including the blatant editing of student papers). As before, one of the principal concerns of writing center specialists has been how to maintain in cyberspace the human element that so enriches face-to-face tutorials—in short, how cybertutors can overcome the lack of facial and verbal cues from student writers. In a 1994 *Writing Lab Newsletter* article, Jeffrey S. Baker questions the ethics of online tutoring because electronic dialogue does not permit the "conceptual indeterminacy" and potential creativity of verbal conversations (6). In a 1995 *Computers and Composition* article, David Coogan reflects that email tutorials collapse "the self into text where it becomes a rhetorical construct, not a social given" (171). For the most part, though, Coogan supports email tutoring because it closely reflects today's social constructivist views about the collaborative production of knowledge.

To make the best use of virtual writing centers, Diana George contends, writing center specialists will need to construct new theories on electronic discourse that inform the teaching of writing. In her 1995 article in *Computers and Composition,* George says, "We cannot simply add computers to a writing center any more than we can simply add tutoring to a computer" (334). A number of writing center professionals also point to the need for theory to inform tutoring in virtual environments,

and in a 1997 *WCJ* article, Stuart Blythe attempts to delineate such a theory by examining the implications of three existing theories of technology—instrumental, substantive, and critical. As Blythe explains, instrumental theories "see technology as neutral" (95) while substantive theories see technology as the product of "a unique cultural system" and the shaper of "social structure and human endeavors" (95-96). In the end, he espouses the critical theory—which avoids important pitfalls of the other theories—as democratic and empowering, and therefore most relevant to the mission of the writing center. Since the critical theory is based, in part, on the notion that need drives technological development, Blythe argues that writing center professionals will have to get more involved in the design of computer software (either directly by learning to write programs or indirectly by having programmers write programs aimed at facilitating collaborative learning).

As Blythe acknowledges, his article "leaves many questions unanswered" (105). One could say the same about the directions the writing center-computer relationship will take in the future. However, as the body of scholarship represented in this bibliography makes clear, as computer technology continues to evolve, writing center professionals will continue—in the interest of their student writers—to experiment with and wrestle with the practical and theoretical implications of this technology. I hope scholars find the bibliography useful in their pursuits. In any case, I must mention that it attempts to cover works from 1995 on, with only a sampling of works prior to 1995. For a complete bibliography of articles involving writing centers and computers, please see the Educational Technology section (and other sections) of *Writing Centers: An Annotated Bibliography*, (Greenwood, 1996), compiled by Christina Murphy, Joe Law, and me. Finally, I must thank Dr. Robert Royar for sending me a copy of the winter 1995-1996 issue of *ACE Newsletter*, which is dedicated entirely to articles exploring the writing center-computer connection.

ADMINISTRATIVE ISSUES

Crump, Eric. "Online Community: Writing Centers Join the Network World." *Writing Lab Newsletter* 17.2 (1992): 1-5.
Reviews the sense of isolation felt by writing center directors in distant parts of the nation and how WCenter, an email distribution list for writing center specialists has brought the profession together. Contends that WCenter gives writing center specialists to express concerns, discuss practical and theoretical issues, and enjoy a sense of community that conventions and print publications cannot, by themselves, provide.

Hobson, Eric. "Coming in Out of the Silence." *Writing Lab Newsletter* 17.6 (1993): 7-8.
Endorses WCenter, the email distribution list, as an invaluable source of information, advice, community, and easy communication for writing center specialists. Also discusses WCenter's potential as a research tool.

Holmes, Leigh Howard. "Expanding Turf: Rationales for Computers in Writing Labs." *Writing Lab Newsletter* 9.10 (1985): 13-14.
Suggests that the addition of computers to a writing lab can help disabuse professors and administrators of the notion that the lab serves only remedial writers, in part because

tutors can focus their efforts on assisting students of all abilities who are in the process of composing papers. Argues that computers help make the writing lab the hub of word processing and other activities related to composition."

Kinkead, Joyce. "The Electronic Writing Tutor." *Writing Lab Newsletter* 13.4 (1988): 4-5.

Discusses the advantages of using an Electronic Tutor" to meet the needs of nontraditional students whose jobs, distance from campus, and family responsibilities prevent them from using the writing center during regular hours. Presents email tutoring as a useful additional service writing centers can offer students with special needs, not as a replacement for face-to-face tutoring.

McKenzie, Lee. "The Union of a Writing Center with a Computer Center: What to Put in the Marriage Contract." *Writing Lab Newsletter* 14.3 (1989): 1-2, 8.

Examines the problems posed by the arranged marriage" of a writing center with a computer center administered by a social sciences department. Problems include dividing the responsibility for supervising the center, sharing access to computers, and training students to use the computers.

ETHICS OF ONLINE TUTORING

Baker, Jeffrey S. "An Ethical Question About Online Tutoring in the Writing Lab." *Writing Lab Newsletter* 18.5 (1994): 6-7.

Examines the ethics of online tutoring, citing problems that can occur because of the lack of face-to-face contact. Suggests that online tutoring can lead to students' misunderstanding of complex concepts raised by tutors and to students' incorporating a tutor's written response into their papers. Expresses concern about the inability of online dialogue to replicate the conceptual indeterminacy" and potential creativity of verbal conversations.

Crump, Eric. "A Dialogue on OWLing in the Writing Lab: Some Thoughts on Michael Spooner's Thoughts." *Writing Lab Newsletter* 18.6 (1994): 6-8.

Contends that the changing nature of writing—from print to electronic media—will inevitably change the nature of tutoring. Argues that writing centers must continue to provide face-to-face tutoring while exploring the new computer technologies and the possibilities they offer for online tutor-student interactions.

Spooner, Michael. "A Dialogue on OWLing in the Writing Lab: Some Thoughts About Online Writing Labs." *Writing Lab Newsletter* 18.6 (1994): 6-8.

Sees computers as primarily positive in writing instruction, but argues against a too-eager adoption of online tutoring because of the value of face-to-face contact between tutor and student. Considers facial expressions, tone of voice, gestures, and pauses for thought as essential aspects of the writing conference that online tutorials lack. Also raises ethical issues about the potential for online tutorials to become merely editing sessions.

HARDWARE AND SOFTWARE

Kock, Christian, and Lotte Rienecker. "A Writing Lab in Copenhagen, Denmark." *Writing Lab Newsletter* 20.9 (1996): 4-6, 8.

Among other topics, discusses the development of two computer-assisted composition programs—*Scribo* (written by Rienecker) and *The ToolBox* (written by Kock)—being used in this university writing lab.

HISTORICAL PERSPECTIVES

Mason, Richard G. "Computer Assistance in the Writing Lab." *Writing Lab Newsletter* 6.9 (1982): 1-5.

Defines computer-assisted instruction (CAI) and discusses its uses in the writing center. Though the word processing and text-analysis programs mentioned are obsolete, writing center specialists will find Mason's discussion of the challenges CAI may pose for writing centers in the future of historical interest.

Mullin, Joan. "Interview with Muriel Harris." *Composition Studies/Freshman English News* 23.1 (1995): 37-53.

Among other topics, this online interview touches on the creation of Purdue's online writing center. Harris states that the OWL is, in reality, only a small part of her writing lab's operation and doesn't seem to be meeting a student need as a way to engage in tutorials." Harris adds she is rethinking the OWL concept in hopes of improving student-tutor interactions.

PROGRAM DESCRIPTIONS

Campbell, John, and Greg Larkin. NAUWriter: "A Total, Automated Writing Environment." *EDU Magazine* 48 (1988): 11-13.

Describes NAUWriter, a computerized writing instruction program developed by an English professor and a computer specialist at the Northern Arizona University. Used in an English department writing lab and other campus facilities, NAUWriter includes an electronic editor that helps student writers focus on such issues as audience, purpose, and stance.

Douglas, Michael A. "A Successful Individualized Writing Lab Module." *Journal of Developmental Education* 16.3 (1993): 24-26.

Reports results of a year-long study of a computer-assisted learning programs designed by teachers to help underprepared students prepare for a state-mandated writing exam. Study shows an improvement in the percentage of students who passed the exam.

Feeman, Jeffrey. "The High School Writing Center: A Place Where Writing Is Fun!" *Thrust for Educational Leadership* 16.5 (1987): 21-22.

Describes the set-up of a high school writing center equipped with a Macintosh computer lab. Discusses the center's purpose, goals, software, staffing, and computer training sessions for students and teachers.

Kinkead, Joyce A., and Jeanette G. Harris. *Writing Centers in Context: Twelve Case Studies.* Urbana: NCTE, 1993.

Eight of the twelve profiles of individual writing centers include sections detailing the hardware and software that each center makes available to student writers. In an overview chapter, Kinkead also discusses the increasing use of computers in writing centers.

Lasarenko, Jane. PR(OWL)ING AROUND: An OWL by Any Other Name." *Kairos: A Journal for Teachers of Writing in Webbed Environments.* 1.1 (1996) <http://english.ttu.edu/kairos/1.1/ owls/ lasarenko/prowl.html> (10 June 1997).

Offers a taxonomy of OWLs, placing online writing labs into three categories: those that merely advertise a center's existence, those that provide handouts, information, and links to other OWLs, and those that provide a full range of tutoring services online. Reviews 14 online writing labs.

Reiss, Donna. "From WAC to CCCAC: Writing Across the Curriculum Becomes Communication, Collaboration, and Critical Thinking (and Computers) Across the Curriculum at Tidewater Community College." *National Writing Center Association Page.* 2 July 1996. <http://www2. colgate.edu/diw/NWCA/WCResources.html>. (4 Aug. 1997).

This brief article describes the creation of a campus-wide literacy program involving computer-assisted instruction at Tidewater Community College. Also available at <http://www1.infi.net/tcc/tcresourc/faculty/dreiss/wachis. html>.

RESEARCH

Bush, Jonathan. "The OWL Resource Page." *Purdue Online Writing Lab.* <http://owl.english. purdue.edu/owl-bib.html> (10 June 1997).

Explains the concept of the online writing lab and offers a five-page annotated bibliography of scholarly research on online writing labs. Divides entries into three categories: issues and implications, narratives, and pedagogy.

Litton, Guy, et al. "Writing Centers in Transition." *National Writing Center Association Page.* <http: //www2.colgate.edu/diw/NWCA/WCResources.html> (5 August 1997).

Gives results of survey interviews with 27 writing center directors on such topics as funding, tutor training, number of students served, and computer services provided to student writers. Also available at <http://www.twu.edu/ as/engspfl/owl/owl4.html>.

Jordan-Henley, Jennifer. "A Snapshot: Community College Writing Centers in an Age of Transition." *Writing Lab Newsletter* 20.1 (1995): 1-4.

Gives results of a nationwide survey of community college writing center directors, including information on computer equipment and software. Indicates that as of 1995, 85% of community college writing centers made computers available to student writers.

STARTING A COMPUTERIZED WRITING CENTER, OWL MOO, OR MUD

Ericsson, Patricia, and Tim McGee. "The Virtual Writing Center: An Owl Flies at Dakota State University." *ACE Newsletter* 9.4 (1995-1996): 18-19.

Describes the creation of an online writing lab at Dakota State University and outlines the positive results of its first year of operation. Claims tutors have learned to avoid editing student papers, which are emailed to the OWL, and primarily address structure or logic of essays and answer specific questions about mechanics or citation styles.

Harris, Muriel. "Hatching an OWL (Online Writing Lab)." *ACE Newsletter* 9.4 (1995-1996): 12-14.

Recounts the creation of the Purdue Online Writing Center, including the coining of the term OWL, and candidly discusses the changes made and challenges faced as the OWL developed. Advises others who consider establishing an OWL to be flexible and to realize that electronic conferences cannot entirely replace face-to-face tutorials. Also mentions that future plans at Purdue may include offering hypertext tutorials and synchronous interactions between tutors and students.

Harris, Muriel, and Michael Pemberton. "Online Writing Labs (OWLs): A Taxonomy of Options and Issues." *Computers and Composition* 12 (1995): 145-59.
Explains the advantages and disadvantages of various technologies writing centers can use to take their services online. Discusses email, Gopher, the World Wide Web, newsgroups, synchronous chat systems, automated file retrieval systems and the factors to consider in choosing among them. Such factors include network security, computer illiteracy, institutional missions, writing center missions, computing center priorities, and programmers' attitudes.

Hoger, Elizabeth. "Identifying and Analyzing Audience Need for an Online Writing Lab." *ACE Newsletter* 9.4 (1995-1996): 5-6.
Examines the political and practical barriers to creating an online writing center and offers suggestions on how to overcome these barriers. Among other suggestions, urges directors to begin by determining the need for an OWL by seeking relevant information on courses and computer access from program directors, instructors, and students.

Kimball, Sara E. "The Undergraduate Writing Center at UT Austin Goes Online." *ACE Newsletter* 9.4 (1995-1996): 7-8.
Describes the establishment of an online writing lab at the University of Texas at Austin, which includes a Multi-User Domain (MUD) for synchronous discussions between tutors and student writers. Suggests the MUD allows for distance learning and encourages a sense of play in student writers.

Langston, Camille. "Resistance and Control: The Complex Process of Creating an OWL." *Kairos: A Journal for Teachers of Writing in Webbed Environments.* 1.1 (1996) <http://english.ttu.edu/ kairos/1.1/owls/Langston.html> (10 June 1997).
Recounts the efforts of a graduate student writing center director to establish an online writing center on her campus. Describes problems (ranging from apathy to active resistance to the OWL concept) with academic computer managers and others in the bureaucracy. Suggests that those seeking to start an OWL first muster support from those with the power and skill to help.

Nelson, Jane, and Cynthia A. Wambeam. Moving Computers into the Writing Center: The Path to Least Resistance." *Computers and Composition* 12 (1995): 135-43.
Urges writing center professionals to lead the way in integrating computer technologies into campus writing programs by collaborating with experts across the disciplines to develop appropriate electronic writing environments. Suggests that through such collaborative efforts as online writing labs (OWLs) and computer classrooms, writing centers can shape future directions of writing instruction.

Palmquist, Mike, and Jon Leydens. "The Campus Writing Center as the Focus for a Network Supported Writing Across the Curriculum Program." *ACE Newsletter* 9.4 (1995-1996): 15-17.
Explains how the creation of an online writing lab led the Colorado State University Writing Center to play a central role in the university's writing-across-the-curriculum program. Outlines the services the center provides, including multimedia instruction software and tutoring via electronic mail.

Palmquist, Mike, Dawn Rodrigues, Kate Kiefer, and Donald E. Zimmerman. "Network Support for Writing Across the Curriculum: Developing an Online Writing Center." *Computers and Composition* 12 (1995): 335-53.

Describes the formation of a writing-across-the-curriculum program housed in a writing center and supported by online tutoring sessions, instructional software, and network communication tools. Notes that offering these services transformed the writing center from an exclusively drop-in to an online facility. Outlines the steps taken in creating the online center.

Pitel, Vonna J. "Making the Writing Center Feel at Home in the Library." *Book Report* 10.2 (1991): 38-39.

Discusses the development of a computerized writing center in a high school library, through the collaborative efforts of the teacher and librarian. Describes how the library provided support for the writing center.

Rickly, Rebecca. "Locating the Writing Center in the Aviary." *ACE Newsletter* 9.4 (1995-1996): 22-24.

Describes the justification for an online writing lab and discusses the problems the director faced, including training cybertutors to respond effectively to submissions from student writers. Asserts that the OWL augments rather than replaces the face-to-face tutorials carried out in the writing center, allowing students to access help at their convenience. Also available online at <http://www-personal. umich.edu/~barthes/aceowl.html>.

Schipke, Rae. "Plugging the Writing Center into the Future." *ACE Newsletter* 9.4 (1995-1996): 1-2.

Argues that in order to make the most effective use of current computer technologies, a writing center director must first consider the resources, student needs, and tutoring philosophy specific to his or her institution. Also raises pedagogical and practical challenges directors may face as they introduce electronic learning environments to their campuses.

Selfe, Cynthia. *Creating a Computer-Supported Writing Facility: A Blueprint for Action.* Advances in Computers and Composition Studies. Houghton: Michigan Technological University, 1989.

Offers practical advice on establishing and maintaining a computer-supported writing center. Divides the process into three major sections: Planning for a Computer-Supported Writing Facility," Operating a Computer-Supported Writing Facility," and Improving a Computer-Supported Writing Facility."

Simons, Susan, Jim Bryant, and Jeanne Stroh. "Recreating the Writing Center: A Chance Collaboration." *Computers and Composition* 12 (1995): 161-70.

A writing center director, instructional designer, and computer coordinator discuss their cooperative effort to integrate computers into a community college writing center. Chronicles their search for a teaching/learning theory on which to base writing instruction via computer.

THEORY

Blythe, Stuart. "Networked Computers + Writing Centers = ? Thinking About Networked Computers in Writing Center Practice." *Writing Center Journal* 17.2 (1997): 89-110.

Examines the growing use of online services in writing centers and the varying perceptions writing center professionals have as to the value such services provide and the problems they pose. Contends that much of the scholarship about online and networked writing centers remains on the logistical rather than the theoretical level. Addresses three theories of technology—instrumental, substantive, and critical. Espouses critical theories of technology as democratic and empowering, therefore most closely reflecting the mission of the writing center.

Blythe, Stuart. "Why OWLs? Value, Risk, and Evolution." *Kairos: A Journal for Teachers of Writing in Webbed Environments.* 1.1 (1996) <http://english. ttu.edu/kairos/1.1/owls/blythe/ owl.html> (10 June 1997).

This hypertext presentation defines and explores the concept of the online writing lab. Discusses the arguments for and against the creation and use of OWLs, offers a theoretical overview, and provides links to other online resources.

Clark, Irene. "Information Literacy and the Writing Center." *Computers and Composition* 12 (1995): 203-09.

Argues that writing center personnel must become computer and information literate in order to help students make use of the ever-increasing wealth of available electronic information. Also suggests that anyone who wishes to have an important impact on students' literacy must play a part in creating the systems that deliver the information.

Collins, Paul. "The Concept of a Co-operative." *National Writing Center Association Page. National Writing Center Association Page.* 5 July 1997. <http://www2.colgate.edu/diw/NWCA/WC Resources.html> (4 August 1997).

Defines the idea of a writing cooperative—a group of writers who gather together to read and respond to one another's work—and compares it to the English coffeehouses of the eighteenth century. Argues that a cyberspace writing cooperative not only supplements a school's writing center but spreads its collaborative pedagogy throughout the campus. Sees the cyberspace writing cooperative, available to student writers at all hours, as the embodiment of Stephen North's original conception of a writing community.

Coogan, Dave. "The Idea of an Electronic Writing Center." *CCCC95 Online.* 20 Mar. 1995. <http:// www.missouri.edu/~cccc95/abstracts/coogan.html> (31 July 1997).

Examines the pros and cons of offering tutorial services over electronic mail. Discusses the methodological constraints of email tutoring and describes how such a program developed at the State University of New York, Albany.

Cooper, Marilyn M., and Cynthia L. Selfe. "Computer Conferences and Learning: Authority, Resistance, and Internally Persuasive Discourse." *College English* 52 (1990): 847-69.

Discusses the creation of a nontraditional discourse forum in which students discuss writing projects and issues via computer logs. Argues that this forum encourages students to resist traditional academic forms of language use because dialogues carried out on the computer are more egalitarian, shaped by students rather than teachers (who are cast in the role of peers rather than authority figures).

Denney, S. Erin, and Matthew J. Livesey. "Review of Internet Resources for Writing Centers." *Writing Center Journal* 16.2 (1996): 183-93.

Critiques three venues that offer online writing center services over the Internet: Gopher, the World Wide Web, and MOOs. Sees going online as a way to extend the impact of writing

center pedagogy beyond the walls of the center but cautions that the decision to provide online services calls for careful analysis of each center's goals, resources, and philosophy.

Farrell, Pamela B. "Writer, Peer Tutor, and the Computer: A Unique Relationship." *The Writing Center Journal* 8.1 (1987): 29-33.
Sees the computer as neutral ground," where a tutor and student writer can collaborate more or less as equals. Argues that composing on computers helps students relax about making revisions and encourages give-and-take dialogue between student writers and their tutors.

George, Diana. Wonder of it All: "Computers, Writing Centers, and the New World." *Computers and Composition* 12 (1995): 331-34.
Discusses the difficulties of fitting traditional educational models into the New World" of the information age. Argues that writing center practitioners and composition instructors need to construct theories about the nature of electronic discourse in ways that inform the teaching of writing.

Grimm, Nancy Maloney. "Computer Centers and Writing Centers: An Argument for Ballast." *Computers and Composition* 12 (1995): 323-29.
Argues that while writing centers and computer centers have different missions, and mergers between the two ought to proceed cautiously, both provide settings for extracurricular learning and institutional reform. Suggests that writing center professionals should work with computer professionals in order to accommodate students' differing educational needs.

Healy, Dave. From Place to Space: "Perceptual and Administrative Issues in the Online Writing Center." *Computers and Composition* 12 (1995): 183-93.
Discusses the effects on tutors and writing center directors of the move from a physical to a virtual writing center. Contends that moving online decenters the writing center and, among other effects, frees tutors from the constraints of time and place. Also explores practical and ethical problems involving scheduling, training, and supervision of tutors.

Johnson, J. Paul. Writing Spaces: "Technoprovocateurs and OWLs in the Late Age of Print." *Kairos: A Journal for Teachers of Writing in Webbed Environments*. 1.1 (1996) <http://english.ttu.edu/ kairos/1.1/owls/Johnson.html> (10 June 1997).
Points out that the term online writing lab" can stand for models ranging from a home-page that merely announces the existence of a center to a virtual space in which student writers and tutors carry on real-time conversations about writing. Describes several online writing labs, contending that they are changing the shape of literacy.

Kimball, Sara. Cybertext/Cyberspeech: "Writing Centers and Online Magic." *Writing Center Journal* 18.1 (1997): 30-49.
Discounts many of the conceptions writing center professionals have about the special nature of online tutoring, contending that some of the vaunted benefits of online tutoring are rooted in a magical" view of computer technology. For example, sees claims that virtual tutoring frees student writers from constraints of sex, race, age, and socioeconomic status as exaggerated. Embraces online tutoring, but cautions against a theoretically naïve approach to the evolving technology.

Mitchell, Margaret. "Initiated into the Fraternity of Powerful Knowers: How Collaborative Technology Has Ethically Legitimized Writing Centers." *Writing Lab Newsletter* 19.7 (1995): 11-13.

Contends that the recent movement toward computerized composition classrooms helps to validate the student-centered, collaborative-learning pedagogy of writing centers. Notes that email discussions by students in computerized classrooms means students are spending more time writing and responding to the writing of their peers. At the same time, teachers tend to exert less control over the email discussions than they do over oral class discussions—"exactly the things that writing centers had been promoting."

Selfe, Dickie. "Surfing the Tsunami: Electronic Environments in the Writing Center." *Computers and Composition* 12 (1995): 311-19.

Alerts writing center practitioners to the technological tsunami washing over higher education and reflects on the problems and opportunities computers present to writing centers. Argues that writing center practitioners must become conversant with MUDs, MOOs, the internet, and distance learning in order to avoid being overwhelmed by and to make intelligent use of such technological innovations.

Strickland, James. "The Politics of Writing Programs." *Evolving Perspectives on Computers and Composition Studies: Questions for the 1990s.* Ed. Gail E. Hawisher and Cynthia L. Selfe. Urbana: NCTC, 1991. 300-17.

Examines the political underpinnings that influence the teaching of writing via computer, including how computers have changed perceptions about teaching writing as a profession, the empowerment of student writers, and funding issues. Mentions writing centers as one site in which political issues and writing instruction intersect.

Veit, Richard C. "Are Machines the Answer?" *Writing Lab Newsletter* 4.4 (1979): 1-2.

Contends that newcomers to the writing center field tend to overestimate the effectiveness of machine-assisted instruction. Reviews the benefits face-to-face human contact between tutors and students and argues that humanistic labs" offer students acceptance, trust, and empathic understanding" that a machine cannot replace.

TRAINING TUTORS AND CYBERTUTORS

Chappell, Virginia A. "Theorizing in Practice: Tutor Training `Live, from the VAX Lab.'" *Computers and Composition* 12 (1995): 227-36.

Describes a tutor training program in which students participate in an email Party Line" to reflect on assigned readings in composition theory and apply theoretical concepts to their work as peer tutors in a writing center. Contends these discussions are more lively and far-reaching than individual journals in helping tutors to better understand and use collaborative pedagogy.

Childers, Pamela B. "Using Basic Technology as a Writing Center Tool to Train Tutors." *ACE Newsletter* 9.4 (1995-1996): 3-4.

Describes a tutor training program in which high school peer tutors carried on email discussions among themselves and with writing center specialists across North America. Contends that email discussions were valuable, in part, because the tutors had to express themselves in writing without making use of facial or verbal cues.

Clark, Irene L. *Writing in the Center: Teaching in a Writing Center Setting.* 2nd ed. Dubuque: Kendall/Hunt, 1992.
This tutor training manual includes a section on using computers in writing instruction.

Johanek, Cindy, and Rebecca Rickly. "Online Tutor Training: Synchronous Conferencing in a Professional Community." *Computers and Composition* 12 (1995): 237-46.
Describes a synchronous conferencing system (*Daedalus INTERCHANGE*) that Ball State University's writing center uses in training tutors. Claims that INTERCHANGE and other synchronous conferencing systems can support the goals of the training program by enhancing tutors' sense of community, encouraging them to participate in policy decisions, and allowing them to practice conversing in a virtual setting that combines elements of oral and written communication.

Kemp, Fred. Getting Smart with Computers: "Computer-Aided Heuristics for Student Writers." *The Writing Center Journal* 8.1 (1987): 3-10.
Takes issue with the notion that computers can or should replace the human tutor and argues that computers are merely tools, intended only to extend human understanding, much as telescopes extend human vision." Views computers as most useful to writers in word processing and in fulfilling a heuristic function. Describes several heuristic programs (*Topoi*, *SEEN*, *Writer's Helper*, *Idealog*, *LOGO*) that might augment human tutorials.

Meyer, Emily, and Louise Z. Smith. *The Practical Tutor.* New York: Oxford UP, 1987.
This textbook for tutor training provides detailed discussions of many aspects of tutoring, including working with computers in the writing center.

TUTORING IN ELECTRONIC ENVIRONMENTS

Andrews, Deborah C. OWL: "Online Writing Wisdom." *Business Communication Quarterly* 58.2 (1995): 9-10.
Profiles the operation of the Purdue University Online Writing Laboratory, in particular how universities and businesses around the world access the OWL's handouts on writing memos, resumes, and cover letters.

Coogan, David. "Email Tutoring, a New Way to Do New Work." *Computers and Composition* 12 (1995): 171-81.
Chronicles a tutor's experience with tutoring via email, demonstrating the benefits and uncertainties of commenting on student compositions without face-to-face contact. Reviews ways in which writing centers previously made use of computer technology—e.g., autotutorial programs and word processing—and argues that email tutorials closely reflect today's social constructivist views about the collaborative production of knowledge.

Cullen, Roxanne, and Sandra Balkema. "Generating a Professional Portfolio in the Writing Center: A Hypertext Tutor." *Computers and Composition* 12 (1995): 195-201.
Describes how a writing center uses a hypertext tutorial program to help students of various disciplines develop professional portfolios. Argues that, among other benefits, developing the hypertext tutorial has helped to maintain the writing center's primary role in the campus's writing-across-the-curriculum program.

Franz, Amelia F. Love and Enchiladas: "Students, Text, and Ownership in a High School Computer Writing Lab." *ACE Newsletter* 9.4 (1995-1996): 11-12.
Argues that the computer literacy encouraged in the writing lab builds students' self-esteem, gives them a greater sense of text ownership, and often leads to a better overall attitude toward writing.

Harris, Muriel. From the (Writing) Center to the Edge: "Moving Writers Along the Internet." *Clearing House* 69.1 (1995): 21-23.
Outlines the types of online services being offered by various writing centers. Suggests that email, MOOs, and internet resources are potent tools for learning in the writing center and will continue to enhance and change, in unpredictable ways, the character of tutor-writer interactions.

Jordan-Henley, Jennifer, and Barry Maid. "MOOving Along the Information Superhighway: Writing Centers in Cyberspace." *Writing Lab Newsletter* 19.5 (1995): 1-6.
Describes a Cyberspace writing center that links tutors at the University of Arkansas—Little Rock to students at Roane State Community College (TN). Argues that the resulting MOO (a multi-user, real-time, synchronous computer link) disrupts the traditional classroom hierarchy, gives students more responsibility for their own learning, and enhances narrative and computer programming skills.

Jordan-Henley, Jennifer, and Barry M. Maid. "Tutoring in Cyberspace: Student Impact and College/University Collaboration." *Computers and Composition* 12 (1995): 211-18.
Describes and evaluates the impact of an experimental program in which students at Roane State Community College (Tennessee) visit a cyberspace writing center and engage in synchronous conferences with graduate student tutors at the University of Arkansas—Little Rock. Contends that many of the skills tutors have developed in face-to-face tutorials apply to cyberspace tutorials. However, also notes key differences in style and affect of tutorials due to the lack of facial and verbal cues.

Kinkead, Joyce. Computer Conversations: "Email and Writing Instruction." *College Composition and Communication* 38.3 (1987): 337-41.
Explores the use of email as a teaching and tutoring tool. Describes a tutoring program in which a tutor responds, via email, to questions posed by nontraditional students who cannot make regular visits to the writing center. Reviews some of the advantages and disadvantages of this approach.

Klem, Elizabeth, and Charles Moran. "Computers and Instructional Strategies in the Teaching of Writing." *Evolving Perspectives on Computers and Composition Studies: Questions for the 1990s.* Ed. Gail E. Hawisher and Cynthia L. Selfe. Urbana: NCTE, 1991. 132-49.
Examines how the advent of computer technology has changed the character of composition and the teaching of composition. Offers strategies for addressing the needs of student writers composing on computers. Mentions computerized writing centers as one venue in which such teaching occurs.

Leff, Linda Ringer. "Computers and Writing Centers—a Marriage Made in Cyber-Heaven?" *ACE Newsletter* 9.4 (1995-1996): 19-21.
Describes how one writing center, dissatisfied with available software, designed its own set of user-friendly computer tutorials aimed at two different audiences: ESL students and first-year composition students. Contends that these programs, which are continually updated, have effectively combined computer technology and humane writing instruction.

Littleton, Bonnie. "Choose-Your-Own-Link' Fantasy Adventures." *ACE Newsletter* 9.4 (1995-1996): 10.
Describes a project in which an English teacher and writing lab supervisor had her students compose a fantasy story in hypertext markup language. The story allows readers to choose among various characters, settings, and plots. Argues that the assignment required students to draw on their story writing abilities while learning to use hypertext.

Luchte, Jeanne. "Computer Programs in the Writing Center: A Bibliographical Essay." *The Writing Center Journal* 8.1 (1987): 11-19.
Reviews contemporary scholarship linking writing centers and computers and explores how the new technology changes the way people teach, tutor, and write." Suggests ways that writing centers can use computers in helping students at all stages of the writing process—prewriting, organizing, drafting, revising, and proofreading. Also reviews relevant software programs.

Moody, Susan. "OWLs and ESL Students." *Kairos: A Journal for Teaching Writing in Webbed Environments* 1.1 (1996) <http://english.ttu/kairos/1.1/owls/moody.html> (10 June 1997).
Takes a brief look at eight online writing centers that offer help to English as a Second Language students. Points out that most of the available help involves grammar instruction and contends that more comprehensive online resources should be developed for ESL writers.

Morgan, M.C. Hands Off: "Ten Techniques for Tutoring on Word Processors." *National Writing Center Association Page.* 9 September 1995. <http://www2.colgate.edu/diw/NWCA/WC Resources.html> (4 August 1997).
Outlines a hands-off approach to tutoring on the word processor that fosters independence and self-discovery in student writers. Aims primarily to allow the student writer to retain full control of a developing text. Also available at <http://cal.bemidji.msus.edu/English/Morgan/Docs/TenTechniqueshtml>.

Scharton, Maurice. "The Third Person: The Role of the Computer in Writing Centers." *Computers and Composition* 7.1 (1989): 37-48.
Uses four case studies to examine the role of the computer in facilitating personalized writing instruction in tutorials. Suggests that computers act as mediators between tutor and student, enhancing one-to-one relationships, encouraging flexibility of thinking, and keeping the focus of the tutorial on issues of composition rather than grammar.

Simons, Susan. CAI: "Instruction and Change in the Writing Center." *Writing Lab Newsletter* 20.1 (1995): 11, 16.
Sees the increased use of computers in composition as empowering to student writers because composing on a word-processor helps students discover that text is fluid and writing

is a recursive process. Argues that insight into how computers are affecting the writing process allows tutors to intervene much more intelligently."

Swartz, Patti Capel. "Integrated Language, Integrated Writing: The Writing Center as Classroom." *ACE Newsletter* 9.4 (1995-1996): 8-9.
Describes a composition course which meets one class period per week in the writing center's computer cluster. Argues that this approach fosters collaboration and discussion of writing, encourages revision as the text develops, and leads to greater visibility for the writing center.

Wood, Gail F. "Making the Transition from ASL to English: Deaf Students, Computers, and the Writing Center." *Computers and Composition* 12 (1995): 219-26.
Describes five tutoring sessions with a deaf student (whose first language is American Sign Language). Tutor and student communicate in written English, via computer, in an attempt to decrease the student's dependence on ASL while expressing his thoughts. Notes an increase in fluency in written English and less reliance on signing before writing.