

Annotated Bibliography

CCCC Committee on Best Practices in Online Writing Instruction

The following is an annotated bibliography of scholarship pertaining to Online Writing Instruction (OWI). The CCCC Committee on Best Practices in Online Writing Instruction has gathered, reviewed, and annotated webtexts, articles, and books from 1980 through early 2008 that help us better understand those approaches and strategies that are most effective in OWI. Readers are asked to send corrections or annotations of more recent bibliographical entries to Keith Gibson at keith.gibson@usu.edu.

The items have been divided into four categories to facilitate searching: (1) OWI Pedagogy; (2) OWI Technology; (3) E-learning; and (4) Online Writing Centers.

Quick Search Key Words: collaboration, new media, online conferencing, online writing instruction, peer tutoring, teacher training, technological literacy, user-centered design, writing processes

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OWI Pedagogy

Alexander, Jonathan. "Digital Spins: The Pedagogy and Politics of Student-Centered E-Zines." Computers and Composition 19 (2002): 387-410.

Alexander recounts and analyzes how e-zines were used in first-year writing courses to enhance students' rhetorical sensitivity to considerations of audience. More specifically, by analyzing existing e-zines, submitting articles to those e-zines, and collaboratively assisting the writing instructor in creating a course e-zine, students gained much ground in becoming aware of how discourse communities function and in considering the impact of an audience's interests and expectations on their writing. Moreover, in working with e-zines, students tapped into a writing process that moved their work away from simple imitation and parody of discourse cues and toward a self-directed development of invention, discovery, and rhetorical sophistication, often facilitated by a continuing focus on document design, interactivity, and content. Finally, on their own initiative, students began exploring ways to use writing to provoke an audience to consider alternative views, a project that encouraged some students to re-conceive their work with e-zines as a political endeavor.

Alexander, Jonathan, and Marcia Dickson. Role Play: Distance Learning and the Teaching of Writing. Cresskill, NJ: Hampton Press, Inc., 2006.

Alexander and Dickson's edited collection examines the impact of distance learning on writing courses in higher education. Seeking not merely to train faculty to work in online environments, the emphasis of the chapters is instead on "serious discussion of the development of effective means of conveying information, developing knowledge, [and] perfecting skills." The book draws on philosophical, theoretical, and practical concerns, and is developed on the belief that the roles and performances of faculty and students are very significant, as both parties renegotiate approaches to teaching, learning, and education in a distance setting. Its chapters are organized into three sections: (1) changes in students' and teachers' roles and performances; (2) changes in writing processes and pedagogy; and (3) the need to build community among remote students and instructors.

Allen, Nancy. "Designing an Electronic Writing Classroom." IEEE Transactions on Professional Communication 39 (1996): 232-238.

This article describes Allen's thoughts on setting up an electronic writing classroom. She provides details for each of the four stages: (1) establishing a plan; (2) developing a room design; (3) working within budgets; and (4) maintaining a smoothly running computerized classroom. Allen focuses on administrative work and explains the nuts and bolts of funding and physically building a computer classroom. She does not address the effectiveness of such classrooms, which makes the article of somewhat limited usefulness for OWI.

Barrett, Edward. "Collaboration in the Electronic Classroom." Technology Review 96.2 (1993): 50-55.

Barrett describes MIT's first classroom reliant on a "fully distributed computing environment"—network with files, software, e-mail, and other technologies. The Networked Educational System (NEDS) allows the classroom to be "always in session" due to the communications matrix on which it is built. One key feature for the students is the ability to exchange drafts outside of class; the teachers found the students became better, more helpful reviewers. They commented on the students' "sense of sharing": the system "allows more collaboration on technical reports or proposals. Students see how their input affects another's performance." Barrett comments that "students sometimes seem to prefer the old-fashioned red marks of hard-copy grading to the pop-up windows of the online annotation facility." The teachers were pleased with the system, noticing that despite roughly the same amount of time spent on grading essays, they tended to make longer, more substantive comments. One teacher noted that the "guided collaborative efforts fostered by online teaching result in more mature writing by students"; another stated: "more of my students are writing as adults."

Batson, Trent. "Computers and Research: ENFI Research." Computers and Composition 10.3 (1993): 93-101.

Batson's seminal research into *Electronic Network for Interaction*, or ENFI, marks the first networked classroom environment in 1985 at Galludet College in Washington, DC (see also computer-mediated communication [CMC] or networked classrooms). ENFI enabled deaf students to discuss their ideas textually, which radically changed how those students communicated in the classroom and eliminated—to some degree—the need for the close proximity and visual contact that hand-signing requires. In this article, Batson describes an empirical study of ENFI-related writing by employing three different analytical methods (situated evaluation, close reading of two student essays, and a standard Educational Testing Service [ETS] writing sample analysis) to learn more about how ENFI affects student writing and its institutional effect. He speculates that evidence of apparent transfer of social talk to writing may signal a different sense of audience on the part of the ENFI-taught writers.

Becker, Henry Jay. "Using Computers for Instruction." Byte. February 1987: 149-162.

In examining elementary and secondary school uses of computers for instruction, Becker finds that more than 50% of computer time in elementary schools is spent on computer-assisted instruction with only 12% spent on programming. By high school, that time changes to 50% programming and 16% computer-assisted instruction. They find that while boys use computers more than girls, it is mainly in the before- and after-school hours (3:1). During school hours, use is about even. They also find that students with higher abilities overall, especially at the high school level, are much more apt to use computers. They recommend classroom activities that take into account the complexities of teaching a heterogeneous group in large group settings.

Blair, Kristine, and Cheryl Hoy. "Paying Attention to Adult Learners Online: The Pedagogy and Politics of Community." Computers and Composition 23 (2006):

32-48.

Blair and Hoy describe the evolution of an online writing course for non-traditional students. They consider whether OWI poses different challenges for adult students than for traditional student learners, and they examine whether adult students can easily become members of the “virtual community.” The authors argue that adult students have a more difficult time with these communities, and this difficulty poses extra challenges for the instructors. These challenges translate into what Blair and Foy call “invisible labor” for online teachers of non-traditional students, and they argue that our notion of online writing pedagogy must include explicit recognition of building communities for traditional and non-traditional students. These observations are important for understanding best practices for OWI in a variety of contexts.

Blair, Kristine L., and Elizabeth A. Monske. "Cui Bono?: Revisiting the Promises and Perils of Online Learning." Computers and Composition 20 (2003): 441-453.

Blair and Monske review the history of vacillating attitudes about the role of technology in teaching writing. From the early “egalitarian narratives” of evenly distributed power among teachers and students to the challenges posed to students in networked writing spaces, they argue that it is now instructors who have the least power in networked environments. Blair and Monske claim that the “rhetorics of distance education (stressing access, convenience, and immediacy) empowers [students] and potentially disenfranchises” and even “exploits” teachers. Some universities market distance education in a way that leads students to expect teachers to work with them 24/7. The authors ask readers to consider "Cui bono?" or "who benefits" from online education.

Blythe, Stuart. "Designing Online Courses: User-Centered Practices." Computers and Composition 18 (2001): 329-346.

Blythe argues that online teachers must think like designers, and he points out that designers of web courses must understand the pedagogical, political, and ethical implications of their designs. He compares systems-centered and user-centered models for designing online courses, noting that these two models embody inherently different value systems. He argues that the user-centered model for course design is more appropriate for OWI because it more closely matches the values of teachers, and he presents a number of strategies for implementing such user-centered design in OWI.

Blythe, Stuart. "Meeting the Paradox of Computer-Mediated Communication in Writing Instruction." Teaching Writing with Computers: An Introduction. Ed. Pamela Takayoshi and Brian Huot. Boston, MA: Houghton Mifflin Company, 2003. 118-127.

Blythe offers both practical guidance and theoretical perspective on the place of CMC in writing pedagogy. With a focus on writing curricula, writers, and instructors of writing, the author challenges unrealistic and overly optimistic assertions of what CMC can accomplish, and argues that, “theory and practice must be in touch with one another if

technology is to be used successfully.” Blythe defines CMC as “communication that approximates in-class discussion” or “talk or informal correspondence between two or more individuals,” and his concern is with tools such as e-mail, chat rooms, and discussion boards. According to Blythe, although CMC does not typically “erase” gender, ethnicity, or socio-economic status, if it is integrated wisely, its advantages include the ease with which more students are involved in discussions, the opportunity for online journals and brainstorming, its use for peer review, and the ability to extend the temporal and spatial boundaries of the classroom.

Boynton, Linda. "When the Class Bell Stops Ringing: The Achievements and Challenges of Teaching Online First-Year Composition." Teaching English in the Two-Year College 29 (2002): 298-311.

Boynton draws on her experiences in a first-year composition course and discusses a series of online achievements and their corresponding challenges. She does this because “[b]eyond the challenges of technology and time, online teaching also elicits unexpected introspection about our role as instructors, our changing relationships with our colleagues, and our evolving perceptions about the students we serve.” She names these achievements and challenges as: (1) teaching online extends disciplinary horizons for faculty, but this demands a renegotiation of roles and responsibilities; (2) new course delivery systems generate conversations of what constitutes “good teaching,” but those who teach online may encounter skepticism from those who do not; (3) online courses may allow for more of a “partnership” with students, but this necessitates the surrender of previously held faculty authority; (4) there are often more “teachable moments” online because of the extended contact, but this can be overwhelming; and (5) courses conducted online allow a broader spectrum of students to participate, but because these students do not always succeed it is even more important to understand them.

Brady, Laura. "Fault Lines in the Terrain of Distance Education." Computers and Composition 18 (2001): 347-358.

Brady argues that while many universities have echoed the rhetoric of access and advancement common in commercial discussions of technology; in practice, distance education often reinscribes the “fault lines” of economic access that students already face. She describes her own experience teaching the same business writing course both online and in a face-to-face classroom. After assessing student feedback from the online version of the course, Brady identified three typical problems with teaching online: disparities in students’ access to technology, students’ perception that the course did not have a teacher, and high dropout rates. She uses Louis Althusser's "Ideology and Ideological State Apparatuses" to argue that distance education does not transform learning as it promises, but instead calls on teachers to perpetuate "existing social relationships" and inequities.

Brickman, Bette. "Designing and Teaching Online Composition." Teaching English in the Two-Year College 30 (2003): 358-364.

Brickman reports on “the development and implementation of an online writing course for advanced EFL students.” She reviews her preparation for online instruction and provides an overview of her course design choices; on the basis of her experiences, outlines a number of problems to avoid. (1) Faculty must be aware of “how difficult it is for students just starting their online courses,” and accordingly instructions and directions need to be very clear. (2) The tone of e-mail messages, because of the lack of non-verbal cues, may inadvertently appear abrupt to some students. (3) Faculty who are new to distance education often spend a considerable amount of time getting started, and must be prepared for “quirks in the Internet connections and course-management system.” Nevertheless, Brickman states that, “with the commitment, support, and patience of the institutional administration, faculty, and students, Internet courses can be effective modes of instruction.”

Cargile Cook, Kelli and Keith Grant-Davie, eds. Online Education: Global Questions, Local Answers. Amityville, NY: Baywood Publishing Company, Inc., 2005.

In this edited text, Cargile Cook and Grant-Davie examine best practices in online education through various lenses. They affirm that the pedagogy should drive the selected technologies and that online education in and of itself is neither better nor worse than traditional education. The book is divided into four sections represented by four “global” questions that authors attempt to address with locally situated best practices: (1) How do we create and sustain online programs and courses? (2) How do we create interactive, pedagogically sound online courses and classroom communities? (3) How should we monitor and assess the quality of online courses and programs? (4) How is our online education challenging our assumptions?

Daiute, Colette. "Can the Computer Stimulate Writers' Inner Dialogues?" The Computer in Composition Instruction. Ed. William Wresch. Urbana, IL: National Council of Teachers of English, 1984. 131-139.

In a multiple case study of 12 year olds, Daiute examines how children interact with a word processing/composing aid software. While all students report enjoying writing on computer more than on paper, those who had written a lot before they used the computer were able to work more quickly on paper, even after substantial computer practice. She also found that some students became dependent on the software for their writing. This study, which took place in 1984, reported on students who had very little background using computers; as such, it can help OWI teachers whose students regularly come from backgrounds with less access to computers.

Davis, Boyd H., and Chang Ye-Ling. "Long-Distance Collaboration with on-Line Conferencing." TESOL Journal 4.2 (1994): 28-31.

Davis and Ye-Ling report on the collaboration between teachers and students at Taiwan's National Kaohsiung Normal University (NKNU) and the University of North Carolina-Charlotte (UNCC). The article explains how to develop a collaboration like this one (i.e., swapping syllabi and comparing calendars, among other activities) and the effects of such

teamwork on English language learning (ELL). The authors find that the intense exposure to English throughout the semester seemed to help the Taiwanese students with their English, and the presence of a real English-speaking audience made their writing more relevant and more helpful. One of the teachers noted that the “most important feature of our exchanges is the chance for students to become consciously collaborative members of a discourse community they create.” Davis and Ye-Ling offer useful evidence that online writing and collaborating can have some significant practical consequences in ELL settings.

Day, Michael. “Teachers at the Crossroads: Evaluating Teaching in Electronic Environments.” Computers and Composition 17 (2000): 31-40.

Day analyzes the risks incurred by teaching with technology, particularly as they bear on achieving promotion or tenure from committee members who may measure their work with technology by standards designed for face-to-face teaching and print publications. For example, Day describes the “electronic panopticon in academia,” a dynamic in which promotion committee members may observe class exchanges and documents online without teachers knowing they have done so and thus without providing teachers an opportunity to provide a clear context for that work. After outlining other such problems of teaching with technology, Day compiles a list of questions that teachers should ask of their evaluators when teaching with technology, and he suggests guidelines for evaluating such teachers.

de Montes, L. E. Sujo, Sally M. Oran, and Elizabeth M. Willis. "Power, Language, and Identity: Voices from an Online Course." Computers and Composition 19 (2002): 251-271.

de Montes, Oran, and Willis analyze the role of race in online class discussions, focusing on three incidents recorded in the transcripts of an online course for a master's degree in which race became an implicit or explicit factor in the conversation. Using symbolic interactionism and critical theory as a method of qualitative data analysis, the authors ask, "[H]ow can we invite all members of an electronic learning community to participate equally and sensitively so that no one is silenced or privileged?" Reaffirming the work of other scholars, the authors claim that "computers are not culturally neutral but amplify the cultural characteristics that are taken for granted by those who develop them, promote them, and use them," often reconstituting existing social inequities. The authors recommend that both students and teachers develop the skills to recognize and critique social injustices enabled by online environments in order to change them.

DePew, Kevin Eric, Teddi Fishman, Bridget Fahey Ruetenik, and Julia E. Romberger. "Designing Efficiencies: The Parallel Narratives of Distance Education and Composition Studies." Computers and Composition 23 (2006): 49-67.

DePew, Fishman, Ruetenik, and Romberger place current online distance education courses in the historical context of writing studies to illuminate best practices in OWI. The authors note a common rhetoric of efficiency—efficiency of cost and efficiency of

pedagogical mode—in past and present promotion of distance education courses, and they question whether this emphasis encourages best practices. This rhetoric, they argue, tends to support the devalued practice of Current-Traditional Rhetoric rather than “pedagogical principles of dialogism, collaboration, and an emphasis on process” common among most current writing curricula. If the goal is to provide the same type and quality of writing online as students are offered face-to-face, the authors argue, then more work needs to be done in order to articulate and ensure equitable and effective teaching and learning environments online.

DePew, Kevin Eric, and Susan Kay Miller. “Studying L2 Writers’ Digital Writing: An Argument for Post-Critical Methods.” Computers and Composition 22 (2005): 259-278.

Since digital writing studies and second language (L2) writing studies have developed separate and different methodological traditions, De Pew and Miller offer post-critical methodologies, as articulated by Porter and Sullivan, as one way to bridge interdisciplinary concerns. The article first establishes how post-critical methods work in an interdisciplinary context and then discusses the implications of adopting the methodology. The article encourages L2/digital writing research collaborations while also discussing issues relevant to all interdisciplinary collaborations among disciplines with alternate research traditions.

Driscoll, Margaret, and Saul Carliner. Advanced Web-Based Training Strategies: Unlocking Instructionally Sound Online Learning. San Francisco, CA: Pfeiffer, 2005.

Driscoll and Carliner present practical guidelines and strategies for Internet-based professional development programs across multiple subjects, fields, and programs. They focus on generic training systems that can be applied to both academic and professional instructional settings. Divided into four primary sections and using case studies and real-life examples, Driscoll and Carliner first discuss foundations and instructional theory for e-learning. They then address design and curriculum strategies to include storytelling, and blended and informal learning. In a third section, the authors discuss ways to leverage “high-level design strategies” such as e-Mentoring, e-Coaching, and m-Learning. They then provide detailed advice on specific design techniques for openings and closings, exposition techniques for writing e-Learning content, interaction and visual communication techniques.

Duffelmeyer, Barb. "Learning to Learn: New TA Preparation in Computer Pedagogy." Computers and Composition 20 (2003): 295-311.

Recounting a qualitative study of teaching assistants (TAs), Duffelmeyer acknowledges that graduate student TAs need to develop competence before they can perform well as teachers in first-year English (FYE) computer-based courses. Using TA narratives as evidence, she finds that Etienne Wenger's communities of practice (CoP) may be a productive approach to training TAs to teach in the computer-based classroom. She

relates three components of a productive CoP: (1) helping TAs to develop and become comfortable with a teaching philosophy that congruently links the goals, technology, and pedagogy; (2) helping them to know that they can go slowly with incorporating computer technologies; and (3) helping them to understand that they are engaged in an ongoing process of learning to teach. This article is one of few that discusses teacher preparation in technology-based classroom settings relative to OWI.

Duffelmeyer, Barbara Blakely. "Critical Computer Literacy: Computers in First-Year Composition as Topic and Environment." Computers and Composition 17 (2000): 289-307.

Duffelmeyer employs a critical qualitative methodology to examine the "unexamined," presumed attitudes of students in first-year composition toward "the prevailing discourses of technology." Taking the computer as "both content and means to foster critical computer literacy," Duffelmeyer measures students' response to three prevailing myths about technology: "technology-as-all-powerful-and-good," "technology-as-neutral," and "students-and-teacher-as-passive-receivers-of-technology." Her study shows that students generally take one of three different positions in relation to technology: (1) the hegemonic-dominant stance, which accepts technology as beneficial and inevitable; (2) the oppositional stance, which perceives technology as often threatening and problematic; and (3) the negotiated stance, which is more reflective, rejecting simplistic good/bad messages about technology. This negotiated stance aligns most closely with the cognitive goals of first-year composition and should thus be fostered, according to Duffelmeyer. Students must acquire critical computer literacy "to affect the conditions of their lives, for it is critical computer literacy that allows us to comprehend our relationship with computer technology and its uses, possibilities, and meanings."

Faigley, Lester. "Subverting the Electronic Workbook: Teaching Writing Using Networked Computers." The Writing Teacher as Researcher. Ed. Donald A. Daiker and Max Morenberg. Portsmouth, NH: Boynton, 1990. 290-311.

Although dated, Faigley's discussion of early (1988) network uses is useful historically. He provides a discussion transcript regarding a literary work in order to demonstrate that teachers politically lose control over a class in this setting, making instructors more like students in their own classrooms. Further, he notes that the subject matter becomes class-rather than instructor-determined. He argues, but only supports anecdotally, that students retain anonymity regarding gender and that artificial closure is both difficult to achieve and unwanted.

Graves, William H., and Carol Twigg. "The Future of Course Design and the National Center for Academic Transformation: An Interview with Carol Twigg." Innovate 2.3 (2006). 2 May 2006 <<http://www.innovateonline.info/index.php?view=article&id=218>>.

Graves and Twigg discuss the activities and research of the National Center for Academic Transformation (NCAT), specifically focusing on NCAT's Program for

Course Redesign (PCR). Research findings from PCR suggest that the targeted incorporation of technology into particular courses can yield reduced costs and greater learning outcomes for students, compared to traditional course designs. Strategic recommendations for using technology and e-learning strategies are considered within the context of the efficiency and economics of course delivery. Practical suggestions for redesign measures deployed in first year composition also are included and are relevant to OWI.

Harrington, Susanmarie, Rebecca Rickly, and Michael Day. The Online Writing Classroom. Cresskill, NJ: Hampton Press, Inc., 2000.

Edited by Harrington, Rickly, and Day, the chapters in this book are divided into three sections of pedagogy, community, and administration, which advance the claim that “good teaching, good learning, and good writing can emerge from networked spaces.” As a precondition, however, the editors note that it is necessary to “carefully articulate course goals, and then consider the ways in which technology use will help students to meet those goals.” Not only is thoughtful planning essential, faculty also must be trained to employ technology in ways that are pedagogically solid, and to that end the chapters blend theory, context, and practice to help writing teachers work effectively online.

Hawisher, Gail E., and Paul LeBlanc. Re-Imagining Computers and Composition: Teaching and Research in the Virtual Age. Portsmouth, NH: Boynton/Cook Publishers, 1992.

Hawisher and LeBlanc produce here one of the first collections devoted to teaching writing with computers. It was compiled before the Internet age, so there is nothing specifically relating to OWI as we now conceive it, but the second section, titled “Looking Beyond Horizons: Teaching Writing on Networks,” provides interesting perspectives from some of the scholars considering the possibility of using technology to teach writing at a distance. Hugh Burns’ chapter on “Multimedia, Multinetworked Classrooms” is an especially interesting description of his first experience teaching students via network. This is an excellent text for reminding us of some of the expectations and apprehensions of OWI.

Hawisher, Gail E., and Cynthia L. Selfe. Evolving Perspectives on Computers and Composition Studies: Questions for the 1990s. Urbana, IL: National Council of Teachers of English, 1991.

Hawisher and Selfe here collect chapters that focus largely on the ways computers in the face-to-face classroom affect composition instruction. Though compiled before online instruction was a reality, the text includes some chapters that foresee some possibilities of networked writing instruction, particularly in section 2; there, Kate Kiefer, Elizabeth Klem, Charles Moran, and Andrea Herrman describe teaching writing in electronic environments. This collection is another useful one for establishing the roots of OWI theory.

Hawisher, Gail E. and Cynthia Selfe. "Teaching Writing at a Distance: What's Gender Got to Do with It?" Teaching Writing with Computers: An Introduction. Ed. Pamela Takayoshi and Brian Hout. Boston, MA: Houghton Mifflin Company, 2003. 128-49.

Hawisher and Selfe describe the experiences of women both as teachers and learners in a distance education setting, making, as they do, three primary claims. First, they state that online environments "have not proven to be the egalitarian spaces that teachers had hoped" to build. Second, because of individual differences it is not possible to essentialize online "experiences along the lines of gender alone." Finally, any consideration of women's experiences online "must be situated clearly in a cultural and geographical context." With these three questions in mind, the "overarching goal" of the authors "is to present possible designs for productive action to ensure" the best possible learning processes and outcomes in "totally electronic-based writing classes." Pursuant to that objective the article is divided into four sections: (1) statistics on and a working definition of distance education; (2) a review of research on distance education; (3) the views of five women who teach composition at a distance; and (4) the basics of a "feminist-informed pedagogy" for online and distance composition courses.

Hewett, Beth L. "Asynchronous Online Instructional Commentary: A Study of Student Revision." Readerly/Writerly Texts: Essays in Literary, Composition, and Pedagogical Theory. (Double Issue) 11 & 12.1 & 2 (2004): 47-67.

Hewett describes an empirical practice-based study of asynchronous OWI undertaken to learn whether and how students apply commentary to their revision. The post-secondary developmental and first-year English students in the study received one-to-one asynchronous commentary from Smarthinking online instructors, called e-structors. The study revealed that "the students (1) made approximately 40% of their revision changes in response to online instructional comments, (2) changed their writing more often at the surface formal and meaning altering levels from those comments, (3) revised in generally correct ways that had moderate to low rhetorical force, and (4) may have developed experientially from OWI." Hewett provides questions for future research into OWI to determine best practices both for student learning and for online instructor preparation.

Hewett, Beth L. "The Characteristics and Effects of Oral and Computer-Mediated Peer Group Talk on the Argumentative Writing Process." Dissertation/Thesis. The Catholic University of America, 1998.

In her doctoral dissertation, Hewett describes a naturalistic study with functional and qualitative analyzes and retrospective interviews regarding whether and how students uses CMC and oral peer response group commentary differently in their revisions. Using Anne Ruggles Gere's 1985 linguistic function taxonomy and an iteratively derived revision analysis, this study reveals key differences between uses of peer group response in CMC and oral settings. The "oral talk was more contextually focused on abstract, global idea development" while "the CMC talk was more focused on concrete writing issues and group management." Referential and phatic talk were qualitatively different

between the two modalities. Both the talk and the revision had different qualities between the two modalities, “suggesting that the medium shapes not only talk, but revision itself.” Student individual writing styles and challenges also were identifiable. Hewett's study suggests a need for understanding CMC-based peer response as both connected to and separate from oral-based peer response.

Hewett, Beth L. "Characteristics of Interactive Oral and Computer-Mediated Peer Group Talk and Its Influence on Revision." Computers and Composition 17 (2000): 265-288.

Hewett details a functional and qualitative study of interactive oral and CMC-generated (Norton) peer response group talk and its influence on revision. The interactive peer groups in both environments talked primarily about their writing. However, the talk had different qualities when students used different media, suggesting that medium shapes talk. Oral talk focused contextually on abstract, global idea development, whereas talk focused more on concrete writing tasks and group management. Each environment generated qualitatively different talk regarding referential and phatic contact. Students revised using ideas generated from both oral and talk. However, revision changes revealed different qualities when developed in different environments, suggesting that medium shapes revision. Revision from talk included more frequent direct use of peer ideas, whereas revision from oral talk included more frequent intertextual (imitative and indirect) and self-generated idea use.

Hewett, Beth L., and Christa Ehmann. Preparing Educators for Online Writing Instruction: Principles and Processes. Urbana, IL: NCTE, 2004.

Hewett and Ehmann outline what they call a “principle-centered” approach in the interests of developing best practices for the training and on-going professional development of online writing instructors. They describe five common educational principles -- investigation, immersion, individualization, association, and reflection -- that underpin their training program and practices, which is in use at Smarthinking, Inc., an online learning assistance center. These principles, as well as a discussion about contemporary philosophies relevant to OWI, ground a one-to-one experienced mentor to novice OWI instructor approach that can be used in both asynchronous and synchronous environments; they believe that such grounding makes their training approach educationally and practically sound regardless of the technology in use. They include multiple illustrations and sample training materials.

Hewett, Beth L., and Christa Ehmann Powers. "How Do You Ground Your Training: Sharing the Principles and Processes of Preparing Educators for Online Writing Instruction." Kairos: Rhetoric, Technology, and Pedagogy 10.1 (2005). 17 Feb. 2009 <<http://kairos.technorhetoric.net/10.1/binder.html?praxis/hewett/index.htm>>.

Hewett and Ehmann Powers argue that, like students, educators need acculturative and supportive training in online writing instruction (OWI). To this end, they review the available literature surrounding online training and professional development, and they

discuss the five training principles first articulated in *Preparing Educators for Online Writing Instruction: Principles and Processes*: investigation, immersion, individualization, association, and reflection. The connect each of these principles with a training scenario and potential research avenues and practical strategies. They end the webtext with a call for program administrators and online instructors to share their experiences and join together “to articulate, define, and theorize online training processes for both writing instructors and other educators.”

Hewett, Beth L., and Christa Ehmann Powers. "Online Teaching and Learning: Preparation, Development, and Organizational Communication." Technical Communication Quarterly 16.1 (2007): 1-11.

Hewett and Ehmann Powers focus on the need for training and professional development opportunities for online instructors at all levels of OWI in a guest editors' letter of the “Online Teaching and Learning: Preparation, Development, and Organizational Communication” special issue. Arguing that a relative dearth of scholarly articles written to assist with training and professional development may stem from a lack of a shared vocabulary for such needs, they introduce three articles that address training, development, and organizational communication: Kirk St. Amant's “Online Education in an Age of Globalization: Foundational Perspectives and Practices for Technical Communication Instructors and Trainers”; Lisa Meloncon's “Exploring Electronic Landscapes: Technical Communication, Online Learning, and Instructor Preparedness”; and Kelli Cargile Cook's “Immersion in a Digital Pool: Training Prospective Online Instructors in Online Environments.” Altogether, these authors provide perspectives on preparing educators for a global educational setting, self-selecting for teaching in online environments, and--in keeping with the principles of immersion and reflection--using course archives as “constructive hypertext” for training and development.

Hocks, Mary E. "Understanding Visual Rhetoric in Digital Writing Environments." College Composition and Communication 54 (2003): 629-656.

Hocks applies principles of visual rhetoric to two professional academic hypertexts and student work written and designed for the Internet. She argues that writing teachers need to consider features like audience stance, transparency, and hybridity as they teach visual rhetoric for the web; as they do, she claims, they can show their students that such visual rhetoric can be a “transformative process of design.” Writing in digital environments offers an important new application of visual rhetoric, and we must incorporate these applications into a new pedagogy of writing as design.

Jafari, Ali, Patricia McGee, and Colleen Carmean. "Managing Courses, Defining Learning: What Faculty, Students, and Administrators Want." EDUCAUSE Review 41.4 (2006): 50-70.

Jafari, McGee, and Carmean examine the “next generation of e-learning environments ... the complete set of technology tools that students and faculty members will need for support of their day-to-day learning, teaching, and research, whether in face-to-face,

online, or hybrid courses.” Based on a study of faculty, student, and administrator stakeholders, they first look at the advantages and shortcomings of current learning/course management systems (L/CMS) in three key areas: compatibility and interoperability; usability; smartness and dumbness. The authors then turn to what the three sets of stakeholders would like in a L/CMS: smart systems; environment; archives and storage; multimodal/multimedia communication channels; collaboration tools; and mobile computing. Finally, Jafari, McGee, and Carmean analyze the outcomes of their study from the perspectives of a pedagogist, a learning researcher, and a systems designer.

Jones, Marshall, and Stephen Harmon. "What Professors Need to Know About Technology to Assess Online Student Learning." New Directions for Teaching and Learning 2002.91 (2002): 19-30.

Jones and Harmon provide a quick tutorial on assessment and technology, explaining how the technology can and should be used to make assessment as effective (and painless) as possible. Assessment can be especially difficult for faculty who are not as technologically savvy as the students, so the authors connect and translate standard face-to-face assessment practices with options and opportunities in the online classroom.

Knowlton, Dave. "A Theoretical Framework for the Online Classroom: A Defense and Delineation of a Student-Centered Pedagogy." New Directions for Teaching and Learning 2000.84 (2000): 6-14.

Knowlton examines the differences between teacher-centered and student-centered classrooms, argues in favor of the student-centered approach for the online classroom, and explains how a student-centered online classroom can work. He believes online classrooms are most effective when students “determine the direction of a course through their active engagement,” but he also argues teachers must be aware of and able to react to the directions students are taking the course.

Kynard, Carmen. "'Wanted: Some Black Long Distance [Writers]': Blackboard Flava-Flavin and Other Afrodigital Experiences in the Classroom." Computers and Composition 24 (2007): 329-345.

Kynard examines the digital communication of students of African descent in a predominantly black college in order to understand how the students construct their identities. He explains how they “revocabularize” the academic setting to reconstruct knowledge about writing and about themselves. Kynard concludes with a discussion of his own vocabulary in the classroom and an analysis that places the students in reference to the work of John Oliver Killens.

Miller, Susan. "How near and yet How Far? Theorizing Distance Teaching." Computers and Composition 18 (2001): 321-328.

Miller maps out the theoretical principles that will help teachers think critically about

distance learning. She focuses on the ways in which students' and teachers' identities must shift in these new contexts. She identifies the changes that tend to occur when writing courses move online and argues that Composition Studies needs "a theorized preparation for shifts in pedagogy that distance courses make visible."

Miller, Susan. "A Review of Research on Distance Education in Computers and Composition." Computers and Composition 18 (2001): 423-30.

Miller reviews research on teaching writing via distance-learning published in *Computers and Composition* between 1994 and 1999. She is identifying trends in the research, and her analysis of the twelve relevant articles from this period leads to her to identify two main categories: (1) articles that theorize distance education in the context of writing instruction and (2) articles that describe distance education in practice. She concludes by offering suggestions for further research that would build upon the foundation of the previous articles.

Miller-Cochran, Susan K., and Rochelle L. Rodrigo. "Determining Effective Distance Learning Designs through Usability Testing." Distance Learning: Evolving Perspectives 23.1 (2006): 91-107.

Miller-Cochran and Rodrigo present the results of the usability testing they conducted to assess the design of their online first-year composition courses. They offer two generalizable results: (1) their tests offer a model for conducting usability testing of online writing classes to anticipate and alleviate design problems, and (2) their analysis provides an understanding of approaches for course design in online writing courses. The former offers an indication of how to design the tests, gather the data, interpret the results, and implement their findings. The latter are guidelines developed after examining a number of writing classes and applying design principles from usability engineering. This article can be a valuable resource for first-time teachers of OWI.

Olson-Horswill, Laurie. "Online Writing Groups." Teaching English in the Two-Year College 30 (2002): 188-197.

Olson-Horswill argues that, if used well, "discussion forum technology connects online students in interactive, real-life writing groups," with results that "can be even more interactive and personal than in a traditional classroom." Drawing from a case study of a freshman composition course that followed the process model of reading, discussion, writing, writing groups, and writing workshops, Olson-Horswill found that the online groups, once trust was established, were equally as cohesive as face-to-face cohorts. In addition, because these groups were not bound by the space and time of the classroom nor governed by body language or facial expressions, they were even more "pulled together by real thoughts and voices in writing."

Palmquist, Michael, Kate Kiefer, James Hartvigsen, and Barbara Goodlew. "Contrasts: Teaching and Learning About Writing in Traditional and Computer Classrooms." Computers in the Composition Classroom: A Critical Sourcebook. Ed. Michelle

Sidler, Richard Morris, and Elizabeth Overman Smith. New York: Bedford/St. Martin's Press, 2008. 251-270.

Palmquist, Kiefer, Hartvigsen, and Goodlew recount two empirical studies (the "Transitions Study" and the "New Teachers Study") designed to assist educators as they cross boundaries between teaching in traditional and online settings. These studies, which compared classroom settings and student behaviors/attitudes over time, led to a number of themes: (1) differences in classroom settings impacted daily planning; (2) teachers adopted more "take charge" roles in the traditional setting and more decentralized roles in online settings; (3) computer classroom students talked more often with teachers; (4) students used computer classrooms as a worksite whereas traditional classroom students resisted writing activities; (5) teachers were able to transfer more successful activities from computer to traditional settings; (6) even when they believed in the pedagogical benefits, teachers who were less familiar with technology resisted using it; and (7) students in the two settings differed in their attitudes about writing, writing performance, previous writing instruction, and interaction.

Palmquist, Michael E. "Network-Supported Interaction in Two Writing Classrooms." Computers and Composition 10.4 (1993): 25-57.

Palmquist recounts an early empirical study of two asynchronous, CMC-based composition classes to better understand the nature of the talk occurring in the on-line environment. He indicates that computer classrooms offer researchers an important tool for learning how student writers in peer groups address each other's writing. The research, designed to answer whether and how networks "shape curricular and classroom content," he analyzes the conversations that students have in two classes. One is the "information" class where students independently researched topics of their own choices; the other is the "argument" class where students shared both a topic and a knowledge base. Palmquist's findings suggest that students' on-line discussions in the "argument" class revealed a stronger group cohesion and deeper critical skills, indicating that subject matter affects critical commentary in on-line peer groups.

Peterson, Patricia Webb. "The Debate About Online Learning: Key Issues for Writing Teachers." Computers and Composition 18 (2001): 359-370.

Peterson addresses the fears of students and teachers regarding changes that occur in distance-based classrooms, focusing on teacher roles, education goals, and student learning. She claims that the increase in distance education, which occurs through the written word, will make writing teachers' expertise more valuable. She notes the potential clarity problems in written messages, because, in an online course, the student's only option is to seek further understanding using the written medium. Peterson urges educators to think critically about potential problems with distance learning, but also to look for and consider the potential benefits of the medium.

Ragan, Tillman J., and Patricia R. White. "What We Have Here Is a Failure to Communicate: The Criticality of Writing in Online Instruction." Computers and

Composition 18 (2001): 399-409.

Ragan and White stress a need for new writing skills to meet the learner in the online environment, and they offer some specific, practical examples that are developed primarily for e-mail communication. They explain that the speed of online communication opens the “enormous potential” for miscommunication between teachers and their students. They suggest using the “Golden Triangles of Online Communication” as a model for communication: looking to the learner, the context of the interaction, and the task to be discussed online as relevant to writing a comprehensible message.

Selber, Stuart. "Reimagining the Functional Side of Computer Literacy." College Composition and Communication 55 (2004): 470-503.

Selber argues that students need functional computer literacies in addition to the critical literacies that have received the most focus in the past decade. Functional literacy has been considered as repressive “indoctrination into the value systems of the dominant computer culture” and insufficiently “self-reflexive.” He provides five functional, yet socially complex, areas that functionally literate students understand: (1) using computers to achieve educational goals; (2) understanding the social conventions that help determine computer use; (3) making use of the specialized discourses associated with computers; (4) effectively managing their own “online worlds”; and (5) resolving technological problems that interfere with communication.

Selber, Stuart. Multiliteracies for a Digital Age. Carbondale: Southern Illinois UP, 2004.

Selber offers a three-fold framework as an approach to helping postsecondary students develop functional, critical, and rhetorical literacy. Using these categories, he argues that these particular heuristics can enable educators to take part in “a larger, ongoing conversation about the special responsibilities of humanities teachers in a digital age.” He forms his argument around what he believes students of higher education need if they are to be computer literate users, questioners, and producers of technology. Selber’s approach to the literacies that students need is aimed at addressing “one-way literacy models as a foundation for computer initiatives,” wherein “many teachers of writing and communication simply transfer wholesale to the screen their existing assumptions, goals, and practices.”

Selfe, Cynthia L. Technology and Literacy in the Twenty-First Century: The Importance of Paying Attention. Carbondale, IL: Southern Illinois UP, 1999.

Selfe argues polemically that educators and scholars in the English studies field and subfields must “pay attention” to the intersections of technology and literacy, or the “new literacy agenda.” More specifically, she calls for such educators and scholars to “bring to bear” their skills and knowledge to technological literacy as Americans will need assistance in preparing for the technological challenges of the twenty first century. She notes that the broader political agenda of expanding technological uses might not match what humanists see as the most pressing needs of technology/literacy education in this

country. This oft-cited monograph remains current for OWI scholars despite its age because technology is becoming even more inextricably intertwined with literacy than it was in 1999.

Sidler, Michelle, Richard Morris, and Elizabeth Overman Smith. Computers in the Composition Classroom: A Critical Sourcebook. Boston, MA: Bedford/St. Martin's, 2008.

Sidler, Morris, and Smith present previously published research in six sections: (1) the earliest theoretical frameworks for the field of computers and writing; (2) literacy and access; (3) writers and identity; (4) writers and composing; (5) institutional programs; and (6) upcoming “New-Media” multimedia composition writing and pedagogies. The text, available free to educators through the publisher, is a potentially valuable collection that will assist with program development and teacher training regarding OWI.

Stine, Linda. "The Best of Both Worlds: Teaching Basic Writers in Class and Online." Journal of Basic Writing 23.2 (2004): 49-69.

Stine begins this article by noting that although there is general agreement on the place of computers and word processing in basic writing pedagogy, that agreement “is harder to find ... on the question of whether online instruction is equally justifiable for basic writers.” The author proceeds to report on a hybrid course that she taught by first raising some of the problems associated with basic writers online, and then turning to many of the opportunities for this constituency in a distance learning setting. In the final analysis Stine argues for a flexible approach, since “the more options we consider, the more likely we are to find the match that best fits our students’ needs, our institutional resources, and our own individual teaching strengths.”

Sugimoto, Taku. "Non-Existence of Systematic Education on Computerized Writing in Japanese Schools." Computers and Composition 24 (2007): 317-328.

Sugimoto points out an apparent paradox: Japanese schools, especially at the level of higher-education, typically own sufficient numbers of computers and technological resources; however, Japanese writing instruction rarely incorporates computers. Sugimoto’s article seeks to resolve the paradox by examining the Japanese culture. He concludes that writing instruction has not been traditionally taught in the higher education system and was taken for granted, although this is now changing. Additionally, he points out that writing is, for many Japanese people, a collaborative effort and a social activity, whereas writing in academic settings is largely individualistic.

Takayoshi, Pamela, and Brian Huot, eds. Teaching Writing with Computers: An Introduction. NY: Houghton Mifflin, 2003.

Takayoshi and Huot provide a text with currency for new instructors in OWI settings. Although they value the relevancy of earlier compiled scholarship, they present more current technological and theoretical discussions to meet the realities of online writing

classrooms in 2003. Selected authors discuss (1) writing technologies for composition pedagogies; (2) learning to teach with technology; (3) teaching beyond physical boundaries (or, distance learning); (4) teaching and learning new media; and (5) assigning and assessing student writing. The editors stress that “a notion of pedagogical practice grounded in the theory, reflection, and inquiry that drive our practices is an important component of this volume.”

Thatcher, Barry. "Situating L2 Writing in Global Communication Technologies." Computers and Composition 22 (2005): 279-295.

Thatcher argues for a shift in a researcher's methodological approach to the interaction between technology and culture, away from a focus on how local communities are affected by technologies toward a broad, intercultural perspective that considers the complexities of how different technologies affect various religions, political systems, etc. He argues that this shift will help avoid naturalized assumptions about how any single culture might react to a certain technology and allow the intercultural researcher and instructor to situate any specific group within global cultural patterns.

Tornow, Joan. Link/Age: Composing in the Online Classroom. Logan, UT: Utah State University Press, 1997.

Tornow provides a narrative description of online writing instruction to demonstrate the possibilities for building communities in online classrooms. She studies the way students talk to each other in online classrooms and discovers that the process of composing online is leading to a new notion of literacy. Rich with textual exchanges between students who never met face-to-face, Tornow presents online writing instructors with an informative and potentially positive vision of the future.

Tuzi, Frank. "The Impact of E-Feedback on the Revisions of L2 Writers in an Academic Writing Course." Computers & Composition 21 (2004): 217-235.

Tuzi explores the benefit of combining both electronic feedback (e-feedback) and oral-feedback in the American freshman composition classroom. Focusing on second language (L2) writers, he examines the e-feedback of twenty L2 writers and concludes that e-feedback proves more beneficial than oral feedback in stimulating global revision. However, Tuzi argues that students enjoy oral feedback more and generally prefer that method. He concludes with implications for L2 writing instruction.

Writing in Digital Environments Research Center Collective. "Why Teach Digital Writing?" Kairos: Rhetoric, Technology, Pedagogy 10.1 (2005). 11 September 2006 <<http://kairos.technorhetoric.net/10.1/binder2.html?coverweb/wide/>>.

The Writing in Digital Environments (WIDE) Research Center Collective, working under the premise that “networked computers create a new kind of writing space that changes the writing process and the basic rhetorical dynamic between writers and readers,” addresses the need to teach writing digitally in digital spaces. Among the implications

they see for digital writing are (1) traditional print-based rhetorical theory is not adequate for digital rhetoric, (2) it is not possible to teach writing responsibly or effectively in traditional classrooms, and (3) we must shift our approaches to accommodate writing instruction in digitally mediated spaces. The uniqueness of this webtext resides in its multidimensional approach to responding to the question asked by the title, and in that it argues with the primary intention of assisting educators in responding to this question in their own institutional settings. Overall, this webtext provides tools for practitioners and administrators who face the question of why they would or should teach digital writing.

Yancey, Kathleen Blake. "The Pleasures of Digital Discussions: Lessons, Challenges, Recommendations, and Reflections." Teaching Writing with Computers: An Introduction. Ed. Pamela Takayoshi and Brian Huot. Boston, MA: Houghton Mifflin Company, 2003. 105-117.

Yancey outlines the uses, advantages, and disadvantages of e-mail, listserves, and other forums for digital discussions in writing pedagogy. She argues that "these digital forums offer teachers new ways to connect with students, new ways for students to communicate with each other and the world at large, and, not least, new genres in which to learn." Yancey is a proponent of these technologies, though in her view their inclusion in the "classroom is both exciting and frustrating." She cautions, however, that we must use common sense informed by "planning ... experience ... review, analysis, [and] reflection." The essay closes with a rubric of questions that Yancey created for planning the incorporation of "ediscourse" in composition courses.

OWI Technology

Alexander, Bryan. "A New Wave of Innovation for Teaching and Learning?" EDUCAUSE Review 41.2 (2006): 33-44.

Alexander examines the realm of "Web 2.0," which he defines as a "diverse set of digital strategies [concepts, projects, practices] with powerful implications for higher education." Alexander observes that at the center of Web 2.0 is the social software of weblogs, wikis, trackback, podcasting, video blogs, and social networking and book marking tools. Together these resources combine to give their users "more of a foundational role in information architecture," from which comes the "wisdom of the crowd" and the dynamic of the "folksonomy." Throughout the article Alexander evokes ways that these many tools could be employed to enhance teaching and learning at the tertiary level, even though they "do not necessarily embrace the culture of higher education."

Alexander, Jonathan. Digital Youth: Emerging Literacies on the World Wide Web. Cresskill, NJ: Hampton Press, Inc., 2006.

Drawing from cultural studies, sub-cultural studies, and cyber-culture studies, Alexander uses the case method to examine how "digital youth" actually employ technology for purposes of "communication and meaning making." In critically examining "various literacy practices performed on and with the Web," the book demonstrates that "digital natives" expect technologies to be used for purposes of composing on and disseminating via the Internet. Alexander sees literacy "being redefined, recast, and reshaped as more and more communication occurs via networked platforms." He is interested both in the roles of faculty in these new environments and in what students can teach faculty as he ponders the "pedagogical implications of the ways such digital youth use and represent themselves with technology."

Ball, Cheryl E. "Show, Not Tell: The Value of New Media Scholarship." Computers and Composition 21 (2004): 403-425.

Ball analyzes the way publications are evolving due to the influence of, and she provides a new taxonomy of scholarly publications: online scholarship, scholarship about new media, and new media scholarship. She defines new media texts as those that "juxtapose semiotic modes in new and aesthetically pleasing ways and, in doing so, break away from print traditions so that written text is not the primary rhetorical means." She uses this definition in her explanation of scholarly online publications, arguing that readers can be better prepared to recognize and interpret these aesthetic modes in new media scholarly texts. This article is an interesting examination of some of the texts and technologies teachers may employ in OWI.

Baron, Dennis. "From Pencils to Pixels: The Stages of Literacy Technologies." Passions, Pedagogies, and 21st. Century Technologies. Ed. Gail E. Hawisher and Cynthia L. Selfe. Logan, UT: Utah State University Press, 1999. 15-33.

Baron discusses the development and spread of writing technologies from the invention of writing itself down to the present, with a focus on the pencil, the computer, and Henry David Thoreau, who contributed to the technology of pencils but scoffed at the invention of the telegraph. Baron argues that information technologies are invented for a limited purpose and are the property of a small group of initiates. As access increases across society, new functions are devised, costs decrease, and facility of use increases. Traditionally, such technologies proliferate by mimicking previous inventions, but often they are resisted by traditionalists. Once accepted, new technologies come into their own, as humans experiment with new—and previously undreamed of—modes of communication. Only at this stage, Baron contends, are previous technologies drawn under the sway of newer technologies.

Braine, George. "A Study of English as a Foreign Language (EFL) Writers on a Local Area Network (LAN) and in Traditional Classes." Computers and Composition 18 (2001): 275-292.

Braine explores whether Cantonese-speaking EFL undergraduate students showed more improvement in writing quality through the use of local-area networks (LANs) or traditional classrooms. He briefly reviews the literature to demonstrate the popularity of LANs in the writing classroom and to suggest that the impact of LANs on writing quality, up to the point of his research, has been uncertain. Braine determines, however, that the writers examined in the LAN classrooms did not improve as much as the writers using the traditional classrooms, although first drafts composed through LANs were of a higher quality.

Bridwell-Bowles, Lillian, Parker Johnson, and Steven Brehe. "Composing and Computers: Case Studies of Experienced Writers." Writing in Real Time: Modeling Production Process. Ed. Ann Matsuhashi. London: Longman, 1987. 81-107.

Bridwell-Bowles, Johnson, and Brehe examine experienced writers who had no prior computer writing experience. They find that those who went through some sort of pre-writing planning were most satisfied with writing on computers. Those who began their process with drafting were least satisfied. They also find that, while revising surface features is easier on computer, large scale re-visioning and revising is difficult with the available technology of the time.

Carr, Tony, Andrew Morrison, Glenda Cox, and Andrew Deacon. "Weathering Wikis: Net-Based Learning Meets Political Science in a South African University." Computers and Composition 24 (2007): 266-284.

Carr, Cox, and Deacon examine using wikis as a learning tool in a South African political science classroom. The authors maintain a particular interest in how students unfamiliar with wiki technology and comfortable in a lecture environment negotiated the collective aspects of meaning-making and knowledge distribution associated with wikis. The study

concludes by discussing the problems that arose for the students as they used wikis and suggests recommendations for future wiki use in similar classroom settings.

Chandler, Sally W., Joshua Burnett, and Jacklyn Lopez. "On the Bright Side of the Screen: Material-World Interactions Surrounding the Socialization of Outsiders to Digital Spaces." Computers and Composition 24 (2007): 346-364.

Chandler, Burnett, and Lopez build on existing research that examines how "outsiders" resist dominant Internet discourses that are largely shaped by a western perspective. They recount an ethnographic study to explore how "outsiders" are initiated into discourse communities. The study extends strategies used by gamers to initiate an "outsider" named Sally into the world of gaming, suggesting that these strategies can be used by instructors to help students who are "cultural outsiders" engage with global online communities.

Cody, Jim. "Asynchronous Online Discussion Forums: Going Vibrantly Beyond the Shadow of the Syllabus." Teaching English in the Two-Year College 30 (2003): 268-76.

Cody reports on his use of online discussions in a face-to-face research writing class. He opens by pointing to findings that online classroom settings often break traditional boundaries in terms of interactions and feedback, and he states that in his own experience "asynchronous online discussion forums can enhance the quality of ... education." Among the benefits of these forums that Cody cites are their ability to sustain "aspects of the course content that students connect with," and the possibility for students to "express themselves at any time and perhaps at any place." These benefits notwithstanding, the author states: "technology can be beneficial in its application but only if it is used for the right students at the right time in the course." What matters most, according to Cody, is to know the students and how they "want and need to be educated, and then look for ways that technology can assist."

Cyganowski, Carol Klimick. "The Computer Classroom and Collaborative Learning: The Impact on Student Writers." Computers and Community. Ed. Carolyn Handa. Portsmouth, NH: Boynton Cook, 1990. 68-88.

Responding to negative student comments on collaboration and peer critiquing, Cyganowski examines the processes when done on computer. While the literature suggests that revisions completed on the computer will tend to be at the lower level of mechanics and grammar, she found that combining word processing and collaboration redirected the writers' attentions to larger composing issues. She found that much more revision takes place, but it is viewed by the students as "still writing" rather than revision. Students who used word processors in collaborative groups were more likely to use computers outside of class and stated that the computer improved their writing.

Davis, Dan. "The Paperless Classroom: E-Filing and E-Valuating Students' Work in English Composition." Teaching English in the Two-Year College 30 (2002): 162-176.

Davis considers “the possibilities of the paperless classroom” if it is conducted with a CMS in a hybrid setting that uses technology-enhanced in-class activities as well as technology out of class in the form of e-mail, online quizzes, e-conferences, and synchronous chat. While he acknowledges that technology can be a “diversionary tactic employed by frustrated teachers” that gets in the way of learning, Davis reports on a business communication course for working adult professionals wherein technology made possible “an efficient and concise method for storing and evaluating papers and communicating with students.” While Davis does not argue that digital responses to student writing necessarily leads to better writing, he indicates that this medium allows for a clearer and more orderly space in which to respond, and that the students thereby benefit.

Davis, Evan, and Hardy Sarah. “Teaching Writing in the Space of Blackboard.” Computers and Composition Online: An International Journal Spring 2003. 10 Aug. 2007 < <http://www.bgsu.edu/cconline/DavisHardy/index.html>>.

Davis and Hardy argue that with course management software, the classroom has changed both literally—in terms of an electronic blackboard replacing a chalk-based one—and metaphorically—in terms of virtual space. Although e-mail, synchronous communication, listserves, and file exchanges have been studied separately, they have not been studied for the effect of placing them all within one CMS. Focusing on the use of Blackboard within a traditional classroom setting, they examine metaphors, consider dialogics, provide a “walk through” of its technological spaces, and offer thirteen tips for teaching with Blackboard.

Davis, Thomas, and Mark Trebian. "Shaping the Destiny of Native American People by Ending the Digital Divide." EDUCAUSE Review 36.1 (2001): 38-46.

Davis and Trebian cite a United States Department of Commerce report on the continued existence of a digital divide “between those with different levels of income and education, different racial and ethnic groups, old and young, single- and dual-parent families, and those with and without disabilities.” They focus, however, on how this divide affects Native Americans. Because of the remoteness of many Native American communities, which raises issues of access and equity, Davis and Trebian assert that technology can and should be part of the solution to the social, economic, and educational problems that such peoples face. More specifically, among the authors’ recommendations are improving “hardware, and software technology at tribal colleges and universities,” and developing “tribally and culturally centered applications of information technology.”

Farmer, Robert. "Instant Messaging: IM Online! RU?" EDUCAUSE Review 40.6 (2005): 48-62.

Farmer argues that students now entering higher education “demand the integration of technology into their learning,” and he states that this “is especially important as more and more institutions, programs, and courses move to an online or blended environment.”

A prominent technology for this entering cohort of students is instant messaging (IM). Farmer opens with an overview of IM, and then turns to its potential as a learning tool, where it can be employed to interact and collaborate synchronically, with files “stored in one location and accessible to everyone.” The author addresses some concerns with IM in an educational setting, including security and privacy risks, exposure to viruses and worms, the possibility of distraction, unauthorized usage, slang language by users, and slow adoption by faculty. These issues notwithstanding, Farmer urges the higher education community to “seriously consider” incorporating IM so as to create “a more engaging learning environment.”

Fleckenstein, Kristie S. "Faceless Students, Virtual Places: Emergence and Communal Accountability in Online Classrooms." Computers and Composition 22 (2005): 149-176.

Responding to the challenge of generating the same quality of “communal accountability—the shared sense of responsibility students and teachers have to one another—online as is typical in face-to-face classrooms, Fleckenstein argues that a complex systems approach to understanding communal dynamics can help online instructors cultivate deeper communal relations in virtual space. According to her, complex systems are generated by an ecology that is not just the accumulation of individual activities but “comes into existence through its interactivity,” the transformative interaction that causes each element to change and become part of a larger entity. Opposing such dynamic environments to virtual space functioning merely as what William Gibson calls a “consensual hallucination” in which students feel that words and actions have no real consequence, Fleckenstein offers best practices for online instruction so that students, instructors, and administrators all contribute to a healthy and productive online learning environment.

Ford, Dwedor Morais. "Technologizing Africa: On the Bumpy Information Highway." Computers and Composition 24 (2007): 302-316.

Ford questions how many computers are available in academic institutions in Africa, and he examines three African countries—Ghana, Kenya, and Egypt—to see how often and in what capacity computers are used in educational settings. Ford examines each country’s technology initiatives and then looks at statistics of computer use in both the basic and tertiary education systems. Ford concludes by offering some reasons for the lack of computer technology in academic settings in these countries.

Ford, Michele. "Preparing Students for Assessment in the Online Class." New Directions for Teaching and Learning 2002.91 (2002): 77-82.

Ford provides some concrete suggestions for explaining to students the standards that will be used for classroom assessment. Noting the difficulties of ensuring understanding with online students, Ford suggests a number of methods, including e-mail and web postings, for communicating assessment expectations. This article is an important reminder that redundancy is necessary in communicating with students in online classes.

Gos, Michael W. "Computer Anxiety and Computer Experience: A New Look at an Old Relationship." The Clearing House 69.5 (1996).

Gos studies the relationship between computer anxiety and experience with computers. He finds that computer anxiety correlates strongly ($r=.759$) with previous negative experience and that this experience accounts for much of the anxiety ($r\text{-square}=.577$). He argues that computer anxiety is created by negative experience on computers, most commonly through programming, and that students with no prior experience also are anxiety-free.

Gos, Michael W. Where Technology and the Corporate Culture Meet: Toward a Rhetoric of Hypertext Reports. Proc. of the Conference of the Southwest/Texas Popular Culture Association/American Culture Association. 1996 1997.

Gos argues that the pressure in business and industry to achieve a paperless office will ultimately result in new forms for documents. Using hypertext as an example, he shows how the changing media will result in changing report formats. He recommends that students be taught to create documents solely through an analysis of purpose, reader and media, rather than learning traditional report formats.

Gould, John D., and Nancy Grischkowsky. "Doing the Same Work with Hard Copy and with Crt Terminals." Human Factors 26 (1984): 323-337.

Spurred by reports of fatigue among users of computer monitors, Gould and Grischkowsky examine differences between writing tasks accomplished on computer and with hard copy. While participants did proofread up to 30% faster on hard copy, they found no differences in proofreading performance, physical comfort, or vision abilities.

Gruber, Sibylle. "Technology and Tenure: Creating Oppositional Discourse in an Offline and Online World." Computers and Composition 17 (2000): 41-55.

Gruber acknowledges discussions regarding the mislabeling and misunderstanding of the work of technorhetoricians by traditional faculty, particularly during promotion and tenure deliberations. She argues that technorhetoricians are not simply outsiders in the academy. Instead, they often occupy a central role in meeting administrative technology goals. Gruber complicates the role of technorhetoricians by applying theories of marginalization to understand how persons in such a role can "enact change in a system that upholds largely traditional values and that often only gives lip service to innovation, diversity, and heterogeneity."

Haas, Christina, and John R. Hayes. "What Did I Just Say? Reading Problems in Writing with the Machine." Research in the Teaching of English 20.1 (1986): 22-35.

Computer users report difficulties in reading on screen and often use hard copy for

reading. A series of three experiments found computer users experienced eroded spatial sense (where in the document things are located), but that more sophisticated systems, and especially large screens on monitors can eliminate this problem. The authors advise that purchasing departments consider the impact of display monitor choice. Given the continuing issue students and teachers have with reading on screen, this article remains relevant for OWI.

Hailey, David E., Keith Grant-Davie, and Christine A. Hult. "Online Education Horror Stories Worthy of Halloween: A Short List of Problems and Solutions in Online Instruction." Computers and Composition 18 (2001): 387-397.

Hailey, Grant-Davie, and Hult provide several examples of volatility in the online classroom that they ascribe to the technological nature of the classroom itself. They suggest that frustration in the online classroom tends to escalate quickly, generating flame wars among students and, in rare cases, spilling outside the classroom as students take their grievances to administrators at the program, university, and even state level. Based on their collective experience, the authors outline five key practices to help prevent or mitigate frustrations evoked by online work: (1) "Visit the class often" to monitor and manage discussions when necessary; (2) "Learn to recognize warning signs and respond to them" (e.g., "low frustration threshold," sense of victimization, and "tendency to overstate problems"); (3) "Post messages often" to let students know you're an active participant; (4) "Respond immediately to relevant posts and to all student e-mail" because students generally don't write unless they are genuinely concerned about something; and (5) "Use the telephone to solve difficult problems and to reinforce support for frustrated students" because the sound of a human voice can diffuse anger and express concern more clearly. More generally, the authors warn that teachers must translate and rethink face-to-face teaching practices for online environments or risk serious unrest online.

Hansen, Wilfred J., Richard Doring, and Lawrence R. Whitlock. "Why an Examination Was Slower On-Line Than on Paper." International Journal of Man-Machine Studies 10 (1978): 507-519.

Hansen, Doring, and Whitlock study the time required for students to take examinations on paper versus online. In their measurements, the authors find that online exams required as much as 100% longer than paper exams. The excess time came from two sources: time spent navigating through different screens and time spent confused when the user did not know how to proceed. The study looked at only seven subjects, but it has potential value in understanding high-stakes situations in OWI settings.

Hart-Davidson, Bill, and Steven D. Krause. "Re: The Future of Computers and Writing: A Multivocal Textumentary." Computers and Composition 21 (2004): 147-159.

Hart-Davidson and Krause construct a screenplay-style text that collects the voices of technorhetoricians responding generally to a "resolution" that in the future, computers and writing will cease to exist as a subfield because all rhetoricians will be expected to understand and address the role of technology in their scholarship and in their

classrooms. In their response to this prompt and to one another, they examine the role of computers in writing both historically and theoretically, addressing such questions as “What is writing?” and “How might the ubiquity of writing affect them personally and change the discipline as a whole?” If there is a central argument that emerges, it is that even as technology changes and attitudes about technology change, their work has and will continue to focus on the intersection of technology and rhetoric.

Hawisher, Gail E., and Cynthia L. Selfe. "The Rhetoric of Technology and the Electronic Writing Class." College Composition and Communication 42 (1991): 55-65.

Hawisher and Selfe apply rhetorical theory to the use of technology in the writing classroom in this 1991 article. They argue that a careful theoretical examination of pedagogical technologies will lead to a more productive use for students and teachers. Specifically, they suggest that we think carefully about the metaphors applied to technological spaces, as some (such as “controller,” “gatekeeper,” or “guard”) can lead to an excess of authority in electronic environments. The ease of establishing authority in computer environments is something the authors warn us about generally, and this warning is still relevant in OWI today.

Hawisher, Gail E., and Cynthia L. Selfe, eds. Passions, Pedagogies, and 21st Century Technologies. Logan, UT: Utah State University Press, 1999.

Hawisher and Selfe bring together a number of scholars who consider various aspects of the ways technology influences communication, literacy, and pedagogy. The collection consists of 23 chapters divided into four parts: (1) Refiguring Notions of Literacy in an Electronic World; (2) Revisiting Notions of Teaching and Access in an Electronic Age; (3) Ethical and Feminist Concerns in an Electronic World; and (4) Searching for notions of Our Postmodern Literate Selves in an Electronic World. All four sections contain important work, but the second section, containing chapters such as Marilyn Cooper’s “Postmodern Pedagogy in Electronic Conversations” and Charles Moran’s “Access: The A-Word in Technology Studies,” is particularly relevant for investigation in OWI. In the words of the editors, “the specific technologies we now use have changed the world in ways that we have yet to identify or appreciate fully”; this text is an effort to make those identifications.

Hill, Charles A., David L. Wallace, and Christina Haas. "Revising On-Line: Computer Technologies and the Revising Process." Computers and Composition 9 (1991): 83-109.

Hill, Wallace, and Haas report an empirical study into the differences between student and experienced writers using both pen and paper and word processing. They attempt to determine how the computer affects writers' processes, not just their products. They note that previous studies lose a sense of the revision process regarding how we can see and understand revision considerations and decisions occurring in writer's minds but that do not show up on paper. They determine that task definition plays a greater role in the writers' choices than do differences in the revising medium. This article is important for

an early understanding of how technology influences writing.

Hirvela, Alan. "Computer-Based Reading and Writing across the Curriculum: Two Case Studies of L2 Writers." Computers and Composition 22 (2005): 337-356.

Hirvela seeks to uncover how, and to what extent, second language (L2) students use computers across the disciplines. She conducts a qualitative study of two undergraduate students using activity logs, personal interviews, and a final questionnaire as the primary means of obtaining information about computer use. The conclusion reveals that the students used computers in multiple ways in different settings, even though teacher instruction on how to engage the computer to complete various class assignments was virtually non-existent.

Inglis, Alistair. "Selecting an Integrated Learning Environment." Innovation in Open and Distance Learning: Successful Development of Online and Web-Based Learning. Ed. Fred Lockwood and Anne Gooley. Vol. 1. Routledge, 2001. 88-99.

Inglis discusses the problem of a lack of traditional educational support services (libraries, tutors, counselors, etc.) for online students. He explains the need for these support services, then provides a framework for educators to make their own decisions about such services. He finds the most important features of these systems to be cost, scalability, and compatibility with existing systems.

Johanek, Cindy, and Rebecca Rickly. "Online Tutor Training: Synchronous Conferencing in a Professional Community." Computers and Composition 12 (1995): 237-246.

Johanek and Rickly describe an online synchronous conference program, Daedalus Interchange, and its introduction into the Ball State University writing center. The authors note that the capabilities of the program match the writing center's tutor training philosophies, in which all members of communities have their own voice, so the program would seem useful technologically and pedagogically. Aiding their analysis is their inclusion of four transcripts from writing center staff meetings, and they note that the synchronous conferencing InterChange allows is beneficial to the trainers and the tutors. They also report on a survey of the tutors that indicates a favorable response to the program. This early effort at applying pedagogical principles to a technological tool is an interesting example of how pedagogy and technology can meet.

Johnson-Eilola, Johndan, and Amy C. Kimme Hea. "After Hypertext: Other Ideas." Computers and Composition 20 (2003): 415-425.

Johnson-Eilola and Kimme Hea re-envision hypertext after its enthusiasm and promise of the 1990s had waned. They present hypertext as a cultural analogy instead of a simple tool or "fulfillment of desires." They argue that a more constructive notion of hypertext can be built on three tropes: hypertext as kinship, hypertext as battlefield, and hypertext as rhizome. They demonstrate that these tropes can lead us to a more productive vision

and use of hypertext in the online writing classroom.

Kemp, Fred. "The Daedalus Integrated Writing Environment." Educators' Tech Exchange 1.1 (1993): 24-30.

Kemp explains the pedagogical philosophy behind the Daedalus Integrated Writing Environment (DIWE): If "engaged and committed writers will take care to read their own text critically and revise carefully," then adding a variety of online peer and teacher response and discussion will help to create such writers. DIWE was the first writing education-based networked software to have text distribution and management tools, as well as heuristics for invention and internal e-mail for communication. Kemp addresses basic issues for instructors, such as learning to use such software, and he outlines what he sees as benefits for students.

Kirtley, Susan. "Student Views on Technology and Writing: The Power of Personal History." Computers and Composition 22 (2005): 209-230.

Kirtley argues that students are not necessarily as computer savvy as the myth and literature may suggest. How and where students gain their previous experience affects the attitudes they have toward computers upon entering college. Kirtley recommends instructors maintain a designated regular time in a public computer lab to assist students in their difficulties with the technology.

Laurinen, Leena I., and Miika J. Marttunen. "Written Arguments and Collaborative Speech Acts in Practising the Argumentative Power of Language through Chat Debates." Computers and Composition 24 (2007): 230-246.

Laurinen and Marttunen assess the argumentative quality of student speech acts by examining student debates in an online chat forum. They examine the balance between collaborative and non-collaborative speech acts by organizing chat responses into seven functional categories. Consequently, the authors are able to conclude that a majority of speech acts in the debates do not reach the highest level of argumentative, logical debate. However, Laurinen and Marttunen also conclude that many students engage in collaborative speech acts in the chat forum and desire to emotionally validate their classmates' responses. Additionally, the authors argue for the usefulness of the chat debate forum since students using chats are able to reflect on their writing after the fact by accessing and reviewing their chats in saved files.

LeBlanc, Paul. "Competing Ideologies in Software Design for Computer Aided Composition." Computers and Composition 7.2 (1990): 7-19.

LeBlanc identifies two ideologies brought to computer-based composition teaching. The instrumental ideology sees human knowledge as something that can be quantified and reduced to the mechanical. A dialectic interaction philosophy, however, has writers working in a discourse community. The latter, he argues, is a better option, since it is more amenable to the writing process. He recommends composition instructors push for

the development and implementation of software of this kind.

Miller, Kristyan Spelman. "Second Language Writing Research and Pedagogy: A Role for Computer Logging?" Computers and Composition 22 (2005): 297-317.

Miller analyzes keystroke logging software that records students' interactions with the computer. She argues that this software can reveal information about an individual's writing process, promoting student meta-cognition of the writing process. It can also show the teacher where a student spends time and what kinds of changes students give priority. Miller suggests that if keystroke logging is appropriately situated in the social, discursive and affective context, then it can have valuable pedagogical implications, especially with regard to second language (L2) writers who may be spending a lot of time negotiating issues of genre, audience, etc.

Palmquist, Mike, Dawn Rodrigues, Kate Kiefer, and Donald Zimmerman. "Network Support for Writing across the Curriculum: Developing an Online Writing Center." Computers and Composition 12 (1995): 335-353.

Palmquist, Rodrigues, Kiefer, and Zimmerman report on the results of a 4-year effort to establish a computer-centered writing environment across campus. They argue that computer networks and instructional software (especially multimedia and interactive software) can provide the foundation for a pedagogically sound writing-center-based writing-across-the-curriculum (WAC) program. They further describe their process of developing appropriate network tools and software to support their WAC goals.

Rose, Jeanne Marie. "'B Seeing U' in Unfamiliar Places: ESL Writers, E-mail Epistolaries, and Critical Computer Literacy." Computers and Composition 21 (2004): 237-249.

Rose opens the article by suggesting that technological expectations are culturally determined and should not be "invisible." As a result, Rose seeks to use e-mail epistolary novels—a sequence of e-mails printed as a coherent story—to engage student conversation about the cultural conventions of writing in different mediums and different settings. Rose hopes to use the casual writing style present in epistolary novels to open up space for second language (L2) writers to critically think about their own technological literacy and cultural expectations for writing. The article concludes by encouraging teachers to further explore the genre of epistolary novels.

Sullivan, Patrick. "Using the Internet to Teach Composition." Teaching English in the Two-Year College 28.1 (2000): 21-31.

Sullivan makes the argument that "a networked classroom environment can be a powerful tool for teachers of writing," and can result in "a dynamic community of readers, writers, and learners." Working with evidence from a first-year composition course, Sullivan offers a set of reasons why this is the case: holding discussions online alters the social dynamics of the classroom; the writing that occurs online is more "real"; online writing

forums are inherently writing intensive and the importance of effective writing is thus readily apparent; and networked settings can result in a more student-centered experience. Nevertheless, Sullivan raises some cautions, including the fact that moving a course online does not simplify the instructor's task of teaching writing.

Twigg, Carol. "Improving Learning and Reducing Costs: New Models for Online Learning." EDUCAUSE Review 38.5 (2003): 29-39.

Twigg is concerned that, though information technologies are being used in interesting and important ways in higher education, for many institutions "new technologies represent a black hole of additional expense." Furthermore, she observes that "rather than improving quality, most technology-based courses" are merely as good as their traditional counterparts. Given these circumstances, the author reports on an effort funded by the Pew Charitable Trusts to redesign instruction for quality enhancements and cost savings at thirty institutions. All participating entities shared six characteristics: (1) whole course redesign, (2) active learning, (3) computer-based learning resources, (4) mastery learning, (5) on-demand help, and (6) alternative staffing. The course redesign models fell along a continuum from face-to-face to completely online: supplemental, replacement, emporium, fully online, and buffet. Twigg closes with the argument that the current norm, both on campus and online, is to "individualize faculty practice ... and standardize the student learning experience," whereas the opposite is what should be done, by which she means not to regulate, regiment, or homogenize, but instead to create "greater consistency in academic practice that builds on accumulated knowledge about improving quality and reducing costs."

Van Eck, Richard. "Digital Game-Based Learning: It's Not Just the Natives Who Are Restless." EDUCAUSE Review 41.2 (2006): 16-30.

Van Eck notes in this article that the proponents of digital game-based learning (DGBL) have managed to overcome the stigma of games as mere play. Now, according to the author, games are being considered and used for serious academic work. He cites three reasons: (1) research shows the pedagogical value of DGBL; (2) today's "digital natives" have "become disengaged with traditional instruction," and (3) the games are increasingly popular. Against this backdrop, Van Eck calls for a shift in strategy among DGBL proponents to "research explaining why DGBL is engaging and effective," and "practical guidance for how (when, with whom, and under what conditions) games can be integrated into the learning process to maximize their learning potential."

Yohon, Teresa, and Donald E. Zimmerman. "Strategies for Online Critiquing of Student Assignments." Journal of Business and Technical Communication 18 (2004): 220-232.

Yohon and Zimmerman discuss the advantages of reading and commenting on student writing using a variety of electronic tools, including the Track Changes, Comment, and AutoCorrect functions. They offer specific suggestions for this electronic critique, including how to prepare students to take advantage of these tools. They also suggest

setting specific policies and boundaries for this type of commenting to avoid some common pitfalls.

E-Learning

Aldrich, Clark. Simulations and the Future of Learning: An Innovative (and Perhaps Revolutionary) Approach to E-Learning. San Francisco, CA: Pfeiffer, 2004.

Aldrich focuses primarily on computer-based/human-to-computer scenarios for training and classroom scenarios. He offers a detailed case study about the development and implementation of a specific e-learning simulation. He chronicles both the challenges and accomplishments of his experiences. In doing so, he highlights key design principles for the development of simulations including animation systems, AI, and user interface. Although the work does not address synchronous human-to-human interaction, Aldrich's design recommendations have practical application to the self-paced, self-modulated aspects of online instruction. Of particular relevance is Aldrich's section on the "Philosophical and Technical Realities" of e-learning.

Andrews, Richard, and Caroline Haythornthwaite, eds. The Sage Handbook of E-Learning Research. London: Sage, 2007.

Andrews and Haythornthwaite compiled a current and comprehensive overview of both empirical and theoretical research into e-learning. Part 1 explores "contexts" for researching e-learning to include a section on computers and writing. Parts 2 and 3 address theoretical foundations for e-learning and policy issues for developers and participants of e-learning. Part 4 explores language and literacy as it relates to, for example, bilingualism and second language learning in Internet-based instructional settings. Part 5 provides design recommendations for curricula, professional development for instructors, and the use of digital video.

Bonk, Curtis J., and Charles R. Graham. The Handbook of Blended Learning: Global Perspectives, Local Designs. San Francisco, CA: Pfeiffer, 2006.

Bonk and Graham's handbook focuses on the phenomenon of "blended learning," which involves learning environments that include both face-to-face and computer-mediated interaction. Further, it highlights blended learning in higher educational, academic contexts as well as professional, work-place contexts. As suggested in the title, the work provides case studies, practical examples, and models of blended learning from around the world. The eight-section handbook first defines blended learning and then explores corporate, higher education, and for-profit university perspectives. One section is also devoted to authors who write about these practices from a multinational point of view. A final section explores trends and new directions for blended learning and its impact on the aforementioned contexts. The handbook is intended for wide application in a variety of blended and/or exclusively online settings.

Bourne, John, and Janet C. Moore, eds. Elements of Quality Online Education: Practice and Direction. Sloane-C Series, Vol. 4. Needham, MA: The Sloan Consortium, 2004.

Bourne and Moore's edited work is comprised of empirical research summaries that address the efficacy, quality, and design of online education. Covering multiple subject areas and fields, the chapters report on various forms of online education to include both asynchronous and synchronous teaching and learning. The work is divided into five primary parts: (1) learning effectiveness, (2) cost effectiveness, (3) learner access, (4) faculty satisfaction, and (5) student satisfaction. Within each section, the various reports offer methodological models for investigating various elements of online learning, recommendations for data analysis, best practices, and implications for program development. Specific direction relating to future research and planning are also addressed.

Bourne, John, and Janet C. Moore, eds. Elements of Quality Online Education: Into the Mainstream. Sloane-C Series, Vol. 5. Needham, MA: The Sloan Consortium, 2004.

Bourne and Moore's edited work builds on previous volumes of the Sloan-C Series, Elements of Quality Online Education. Specifically highlighting the rapid growth and ever-changing nature and technology of online education, the volume focuses on the need for shared language, definitions, and terms for online education. Ways of blending traditional and online education and classifying best practices are also explored. The contributing authors also attend to issues of scalability, cost management, and efficiency for online education programs. Like previous volumes, this work is divided into thematic sections: (1) student satisfaction and student success, (2) learning effectiveness, (3) blended environments, and (4) assessment.

Carliner, Saul. An Overview of Online Learning. Amherst, MA: HRD Press, 2004.

Carliner presents a general overview of fundamental principles, characteristics, and processes of online learning. Divided into four primary chapters, He first defines online learning within the context of, for example, distance learning and computer-based training. He also addresses general issues of efficacy and program implementation. In his second section, Carliner addresses formal and informal learning goals as well as the blending of various learning types with the online environment. Issues of the technology comprise the third section of the book. Carliner ends with "project and learning considerations," presenting a plan for designing, marketing, and managing online learning programs. The book includes a comprehensive glossary of online learning terms.

Childers, Jeri L., and R. Thomas Berner. "General Education Issues, Distance Education Practices: Building Community and Classroom Interaction through the Integration of Curriculum, Instructional Design, and Technology." JGE: The Journal of General Education 49.1 (2000): 53-65.

Childers and Berner review the design and development of a course that they taught, with the aim to determine "the role of distance learning in the implementation of the best practices in general education." The authors organized practices and principles into the categories of learning goals and content presentation; interactions; assessment and

measurement; instructional media and tools; and learner support systems and devices. To these categories, Childers and Berner connect a set of twelve best practices for undergraduate education: (1) “create high expectations”; (2) “[p]rovide coherent, progressive learning and ... reasonable and clear course goals and assignments”; (3) “[c]reate synthesizing experiences”; (4) “[i]ntegrate education and experience”; (5) “[c]reate active learning experiences”; (6) “[r]equire ongoing practice skills”; (7) “[a]ssess learning and give prompt feedback”; (8) “[p]lan collaborative learning experiences”; (9) “[p]rovide considerable time on task”; (10) “[r]espect diverse talents and ways of knowing”; (11) “[i]ncrease informal contact with students”; and (12) “[g]ive special attention to the early years.”

Clark, Ruth Colvin, and Richard E. Mayer. E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning. San Francisco, CA: Pfeiffer, 2008.

Clark and Mayer’s work is grounded in learning science theory as it applies to adults, and it serves as a comprehensive guide for designers and participants in e-learning. It addresses both asynchronous and synchronous instructional settings within corporations, government, and academia. In addition to offering practical advice about, for example, the use of particular technologies, program design strategies, and instructional techniques, Clark and Mayer substantiate claims with various forms of supporting research into multimedia learning. The fifteen chapters in their book address a variety of topics including: the advantages and disadvantages of e-learning, and design principles for multi-media use, contiguity, modality, redundancy, personalization, and segmenting and pre-training. A substantive glossary is also included.

Comeaux, Patricia, ed. Communication and Collaboration in the Online Classroom : Examples and Applications. Bolton, Mass: Anker Pub. Co, 2002.

This edited collection addresses a number of important issues for those involved in the design and practice of online education. It is divided into three sections: (1) Program Development for Distance Education; (2) Professional Collaborative Endeavors, and (3) Creating Online Learning Communities. The contributors come from a range of disciplines, and that makes this text useful for thinking about online education generally, but none of the chapters deal specifically with writing instruction. Thus, while an important collection for scholars in distance education, it is of limited value to those particularly interested in OWI.

CREET. The Centre for Research in Education and Educational Technology. Milton Keynes, UK: The Open University, 2007.

Serving as a research unit within the Open University, UK, the Centre for Research in Education and Education Technology (CREET) focuses on a variety of interdisciplinary areas of investigation associated with e-learning and its implementation. Within the context of computer and Internet-mediated teaching and learning, CREET’s research activities include academic literacies, design and evaluation of education learning

technologies, and models of teacher development and training. Best practices regarding online learning from pedagogical, administrative, and policy perspectives are addressed. Research is conducted by both graduate students, full-time faculty and researchers associated with the Open University and other institutions. Ongoing research activities, findings, and relevant articles are highlighted on CREET's website. Although the focus is largely on the UK and European education, recommendations can be meaningful for North American contexts.

Dabbagh, Nada, and Brenda Bannan-Ritland. Online Learning: Concepts, Strategies, and Application. Upper Saddle River, NJ: Pearson, 2005.

Set within a largely a social constructivist instructional framework, Dabbagh and Bannan-Ritland present fundamental concepts, overall approaches, and implementation techniques for online learning. In presenting their definition of online learning, they address participant (instructor and student) positions and perspectives. They also devote an entire chapter to presenting relevant examples of published, empirical research on online learning to include work on participant perceptions, interactions analysis, and online learning communities. Subsequent chapters address instructional design issues associated with online learning, the development of "authentic" learning experiences for participants, ways to assess online learning, and authoring tools. The authors provide practical advice when making decisions about the use of course management systems (CMS).

Ehmann Powers, Christa and Beth Hewett. "Building Online Training for Virtual Workplaces." Handbook of Research on Virtual Workplaces and the New Nature of Business Practices. Ed. Pavel Zemliansky and Kirk St. Amant. Hershey, PA: Idea Group, Inc., 2007. 257-271.

Ehmann Powers and Hewett document strategies and solutions for employers who are designing and implementing online professional development and training programs for their employees. The recommendations put forth are grounded in educational principles that have been used in a variety of fields. The work provides: (i) a rationale for leveraging the Internet for human adaptive training; (ii) a theoretical framework for practice; and (iii) a model for the deployment of scalable and efficient training activities. The rationale and recommendations offered can inform OWI practices to include teaching and learning activities for students, and training and on-going professional development for instructors.

European Commission. E-Europe 2005. Brussels: Commission of the European Communities, 2005.

Funded by the European Union's European Commission on Information Society, eEurope 2005 was a multi-year initiative that focused primarily on e-learning and e-learning's impact on education, government, and society for EU member states. The website serves as a historical reference of agendas, updates, conference proceedings, and relevant outcomes-based information of the project. Documented topics are categorized

into one of the following main sections: (1) e-learning: People and Technology; (2) European Targets and Initiatives; and (3) Further Reading, and Results from the e-Learning Conference 2005. The material presented on this website provides a valuable snap shot of the nature of e-learning practice and policy within the EU. Such experiences shed light on best practices and commonalities and differences with e-learning in US contexts.

European Commission. i-2010 Initiative. Brussels: Commission of the European Communities, 2007.

Building on the eEurope 2005 initiative, i2010 is a five-year European Union funded program that addresses information and communication technologies (ICT) as they affect various aspects of society, to include ICT in education and life long learning. Three priorities dominate i2010's activities; they are: (1) the creation of a "Single European Information Space" to foster a market for "information society and media services"; (2) the support and growth ICT research and development; and (3) the accessibility and gains in quality of life via ICT advances. Education-related topics include digital literacy, digital libraries, e-Inclusion, e-Accessibility, and e-Skills. As with eEurope 2005, the material presented on this website provides a valuable up-to-date record of the nature of e-learning practice and policy within the EU. Such experiences shed light on best practices and commonalities and differences in US-based e-learning contexts.

European Commission. Prolearn. Brussels: Commission of European Communities, 2007.

Funded by the Information Society Technology (IST) of the European Commission, PROLEARN is labeled a "Network of Excellence." The group specifically deals with the investigation and support of technology-enhanced professional learning. The primary goal is to develop relationships between research groups (who focus on adult learning, professional development, and training) and various industry and business partners. PROLEARN brings together research from numerous fields and entities, to include higher educational institutions, training and professional development programs, and proven business programs. It is committed to narrowing the "theory vs. practice" divide, thereby furthering an understanding of the implications that technology has on activities within the workplace. As with i2010, the material presented on this website provides a valuable current record of the nature of e-learning practice and policy within the EU. Such experiences shed light on best practices and commonalities and differences with e-learning in US contexts.

Fernando, Alonso, Genoveva López, Daniel Manrique, and José M. Viñes. "An Instructional Model for Web-Based E-Learning Education with a Blended Learning Process Approach." British Journal of Educational Technology 36 (2005): 217-235.

Few studies have addressed the instructional processes involved when working with e-learning technologies; however, this article attempts to address the knowledge gap.

Borrowing methods from cognitive psychology, the authors outline a model for effective and personalized instruction using e-learning. By outlining six stages of learning in conjunction with specific educational objectives, the study recommends a blended approach that combines e-learning with a self-paced strategy coupled with face-to-face classroom interaction.

Garrison, D. R., and Terry Anderson. E-Learning in the 21st Century: A Framework for Research and Practice. New York: Routledge Falmer, 2003.

Garrison and Anderson's work investigates the impact of e-learning on various aspects of education to include technological, instructional, and institutional effects. Within this context, they concentrate primarily on principles of education that drive e-learning technology, rather than on specific technology advances and platforms. In Part 1, they present a conceptual framework which explores the theoretical foundations of e-learning as well as social, instructional, and cognitive perspectives. Part 2 addresses the application of their conceptual framework. It provides practical recommendations and models for implementation, strategic management and positioning, and on-going evaluation within an academic context.

Ghaoui, Claude, ed. E-Education Applications: Human Factors and Innovative Approaches. Hershey, PA: Idea Group, Inc, 2004.

Drawing on perspectives from individuals representing twelve different countries, Ghaoui stresses the need for learner-centric technology to dominate "e-education" and online learning initiatives. The cross-disciplinary case studies and examples presented throughout the book report on the opportunities and challenges of deploying online programs for both participants and individuals. In doing so, the contributing authors highlight best practices, technology deployment suggestions, and design recommendations for online learning. The first section of the book broadly focuses on the architecture and instructional design of various programs. The second section of the book primarily explores the learner experience and socialization within online learning environments.

Gignac, Francine. Building Successful Virtual Teams. Boston: Artech House, 2005.

Gignac's work offers a comprehensive, detailed guide for designing and deploying virtual human resource teams. The facilitation of collaborative work and group interaction in a virtual environment is a focus throughout the book. Gignac addresses affective dimensions and issues of motivation for individuals and groups as a whole. Mechanisms for program assessment and performance measurement are also recommended. Although the book is designed for the development of online teams in corporate settings, Gignac's recommendations can have applicability to best practices for the training of online writing instructors, general implementation in OWI programs, and implementation of collaborative learning activities in online classes and programs.

Gillani, Bijan. Learning Theories and the Design of E-Learning Environments. Lanham,

MD: University Press of America, 2003.

Serving as both a theoretical and practical guide for e-learning implementation, Gillani's work presents key concepts and learning theories for Internet-based and computer mediated instruction. Given this conceptual foundation, Gillani explores strategies for content presentation and design that promote interactive learning. After presenting the challenges of e-learning, Gillani's work is divided into three primary sections. The first section addresses specific learning theories that draw on behavioral cognitive, social, and psychological fields. He then addresses key ideas for visual design, such as text, color, animation, and page layout. The last section offers practical advice about the actual design and implementation process for e-learning programs.

Hiltz, Starr Roxanne, and Ricki Goldman, eds. Learning Together Online: Research on Asynchronous Learning Networks. Mahwah, NJ: Lawrence Erlbaum Associates, 2005.

Hiltz and Goldman and their contributing authors provide a focused overview of asynchronous web-based learning that focuses on presenting research findings about the efficacy of online learning (or "learning networks"). The book introduces basic definitions and a theoretical framework (the "Online Integrated Learning Model") for learning networks, as well as suggestions for research design, data collection and data analysis. The second part of the book presents findings from completed research that addresses faculty roles and satisfaction, collaborative learning online, and student experiences in the online classroom. Within this investigative context, Hiltz and Goldman highlight key areas and components of online learning that warrant further exploration.

Horton, William. Designing Web-Based Training : How to Teach Anyone Anything Anywhere Anytime. New York: John Wiley & Sons, 2000.

Horton addresses design and implementation components of web-based training (WBT) in this practitioner-oriented book. He defines the parameters of WBT, offers a framework for choosing and evaluating a particular training approach, and provides guidance on organizing learning sequences for training. Within this structure, Horton then presents practical advice on the promotion and maintenance of motivation, active learning and collaboration amongst participants. Issues associated with overcoming technical challenges, administering WBT on global, international levels, and accommodating new developments (technological and pedagogical) in WBT are addressed. Throughout his work, Horton highlights ways the Internet can be leveraged to attend to unique learner needs across a variety of fields and subjects.

Horton, William. "Quick (and Not Too Dirty) Fix for Online Documentation." Technical Communication 40 (1993): 517-521.

Horton argues that the most essential ingredient for success in online documentation is access; students and scholars, he points out, must be able to "readily find the one morsel of information they need." The first of Horton's two main themes is his argument for

indexing manually; he claims the automated indexers cannot properly anticipate user's needs, they don't deal well with graphical information, and they cannot handle technical jargon. Horton's second theme is an explanation of how to properly index texts manually; he covers standard questions, argues for user testing, and explains a need to broaden terminology. Horton concedes that the need for manual indexing may decrease as auto indexers improve, but he maintains that the philosophy of indexing is still important for those writing syllabi and other course documents for online consumption.

Horton, William, and Katherine Horton. E-Learning Tools and Technologies. Indianapolis, Indiana: Wiley, 2003.

Horton and Horton's work is a practical guide about e-learning technology. It is written for consumers such as educators, trainers, and instructional designers who make purchasing decisions for their e-learning tools. Within a principled decision-making framework, Horton and Horton provide recommendations for choosing and combining various e-learning tools and product solutions. Categorized into seven primary sections, Horton and Horton provide a basic overview of tools, technologies, hardware and networks. They also offer suggestions about aligning technology decisions with overarching programmatic and end-user needs. A final section addresses trends and the move towards standards-based delivery of e-learning.

Illegems, Viviane, and Alain Verbeke. Moving Towards the Virtual Workplace: Managerial and Societal Perspectives on Telework. Cheltenham, HK: Edward Elgar, 2003.

Illegems and Verbeke present findings related to a series of empirical research studies on telecommuting (telework) and online work in the workplace. From employer, employee, and societal perspectives, they explore both the advantages and disadvantages of telework; the implementation of telework; and the support of telework. Using survey data from a variety of respondent cohorts, they empirically assess the challenges and opportunities of telework and offer policy level and implementation level recommendations for the practice. Although this research is not set within the academic online classroom, the emergent findings may shed light on key online learner characteristics and preferences important to participants and designers of OWI.

Johnstone, Sally M. "Signs of the Times: Change Is Coming for E-Learning." EDUCAUSE Review 37.6 (2002): 15-24.

Johnstone claims that "we need to rethink some of our fundamental [e-learning] practices and we need to consider the most critical roles of e-learning in the mission of the U.S. educational system." She argues that an entire institution must be involved in strategic planning for a technologized approach, so that good course design is complemented with "good design of non-course specific support systems." After examining various approaches to this planning, Johnstone closes with the identification of three trends in higher education: (1) the increasing concern being paid to quality assurance and fiscal accountability in e-learning; (2) campus leaders are beginning to sort out the complexities

of using Web tools and the attendant support structure required; and (3) the growing interest in finding ways to share online academic materials among institutions.

Juwah, Charles, ed. Interactions in Online Education: Implications for Theory and Practice. New York: Routledge, 2006.

Juwah presents a collection built on the premise that individuality is the core of successful learning, whether it manifests in encounters between and among students, or between students and faculty. As such the book advocates “open and flexible learning” and seeks to show “how interactions enhance learning, consolidate students’ knowledge, and improve reflection, questioning, and deeper understanding.” With an international array of contributors, the chapters are organized around pedagogy, design, and the learning environment; implications for practice; and professional development.

Lehmann, Kay J. How to Be a Great Online Teacher. Lanham, MD: Scarecrow Education, 2004.

Lehmann draws from the domains of both training and experience to “supplement and extend” existing models to address “the knowledge base and communication skills necessary for quality online instruction.” She stresses that communication is primarily what distinguishes genuine distance learning from mere Web-based tutorials, and she advocates the creation of a class environment where “participants feel valued and safe in developing themselves as online learners.” For this to occur, Lehmann states, instructors must be teachers as well as facilitators, and she therefore provides a number of specific techniques for positive and cooperative interactions in a distance setting.

Maeroff, Gene I. A Classroom of One. New York, NY: Palgrave MacMillan, 2003.

Maeroff provides a comprehensive assessment of online education in the U.S. today. In doing so, he highlights fundamental issues for administrators and developers to consider as they contemplate engaging in and/or expanding their own online learning initiatives. Maeroff sets the foundations of his work by offering a brief history of distance education and defining current parameters for e-learning. He also addresses financial and operational aspects of online education, as well as standards for accreditation and oversight bodies. In further exploring the impact of e-learning on education, Maeroff examines both the research and programs supporting the accessibility and efficacy of online learning. Although Maeroff’s work does not focus on specific design strategies and techniques for online learning and training, his perspectives on online education provide scholarly context for any stakeholders involved with online learning and OWI.

Mason, Robin, and Frank Rennie. E-learning: The Key Concepts. New York: Routledge, 2006.

Mason and Rennie provide a comprehensive list of the basic terms, topics, and concepts associated with online learning. Referenced in alphabetical order, the authors provide short synopses and explanations about, for example, accessibility, activity-based learning,

asynchronous learning, open learning, podcasting, tutoring, and virtual learning environments. Within each section, research and relevant resources are highlighted. The authors also provide a recommended reading list which points to relevant scholarship, manuals, and web resources about online learning.

McConnell, David. E-Learning Groups and Communities of Practice. Maidenhead, England: Open University Press, 2006.

McConnell focuses on the development of e-learning groups and communities within a particular course. With its emphasis on communities of practice, the book's main premise is that online students learn best when organized into collaborative groups. Divided into eight chapters, McConnell addresses design principles for e-learning courses as well as participant experiences and perceptions of group activities and collaboration within e-learning contexts. Further, McConnell highlights the importance of on-going research into e-learning and provides recommendations about problem solving and action research within programs for practitioners. A final section addresses technologies that are particularly appropriate for e-learning situations.

Moore, Michael Grahame. Handbook of Distance Education. 2nd ed. Mahwah, NJ: Lawrence Erlbaum Associates, 2007.

Moore provides an extensive review of relevant research in distance education to include essential facets of e-learning, web-based instruction, and computer mediated communication. The work, divided into six primary sections, first provides an historical context for distance education. Attention to the participant learner in relation to adult learning theory and research dominates the second section of the work. Parts Three and Four report on instructional design and matters of implementation (policy, administration and management). Part Five addresses the participants ("consumers" and "suppliers" of distance learning) such as secondary and post-secondary institutions, and for-profit, corporate entities. With its main emphasis on education and education providers in North America, the Handbook concludes with a section on "Global Perspectives" which addresses issues relevant to an international audience.

Murphy, David, Rob Walker, and Graham Webb, eds. Online Learning and Teaching with Technology: Case Studies, Experience, and Practice. London: Kogan Page, 2001.

Murphy, Walker, and Webb offer a frank discussion about the challenges of teaching and learning within online contexts and provide practical suggestions for addressing those challenges. The nineteen chapters are categorized into the four sections: (1) student interaction issues, (2) teaching and assessment issues, (3) planning and development issues, and (4) policy issues. Specific chapters include reports on a variety of pedagogical, technological and administrative issues such as fostering group participation, encouraging students to use new technologies, assisting academic staff with the transition to online environments, and institutional transition and culture issues. The work ends with a section on relevant recommended reading in the field.

Nicolay, John. "Group Assessment in the Online Learning Environment." New Directions for Teaching and Learning 2002.91 (2002): 43-52.

Nicolay examines assessment in online learning and suggests online instructors pay attention to four components and five principles of assessment. The four components of assessment are: (1) term projects produced by the individual student; (2) periodic participation within the course through electronic conversations or individually submitted reports; (3) examinations; and (4) group experience. The five principles for assessment (based on instructor surveys) are: (1) thoroughly structure the assignment; (2) construct the groups and match membership; (3) monitor and communicate effectively; (4) evaluate consistently; and (5) evaluate the many as one. This is a helpful overview of assessment that will allow online instructors to gain a valuable and sometimes overlooked perspective.

Noble, David. Digital Diploma Mills: The Automation of Higher Education. New York: Monthly Review Press, 2002.

Noble argues that the "automation" of the academy, including the emergence of online instruction, is part of what he calls the "commercialization and corporatization of higher education." According to Noble, in this environment technology is "a vehicle of, and cover for, political agendas" that have serious negative implications for faculty and students alike. This trend presents a threat to the integrity of academe, Noble believes, and his book first explores precursors in the pre-digital age, then turns to the arrival of online universities, and finally examines the struggles over intellectual property rights in an online academic setting.

Oblinger, Diana, and Jill Kidwell. "Distance Learning: Are We Being Realistic?" EDUCAUSE Review 35.3 (2000): 30-39.

Oblinger and Kidwell describe the ubiquity of the networked world and its implications for the academy, including the widely held view of distance learning as a market. They then enumerate four rationales for distance learning ("(1) to expand access; (2) to alleviate capacity constraints; (3) to capitalize on emerging market opportunities; (4) to serve as a catalyst for institutional transformation"), which, though alluring, should be acted on only after institutions calculate their "readiness quotient." The authors then consider the options of partnering or operating alone, and they point out the importance of identifying an institution's underlying assumptions about distance education. In closing, Oblinger and Kidwell observe that digital technologies alter the paradigm of academe, and "with distance education, many of our long-held notions are turned upside down."

Rockbridge Associates. 2005/2006 National Technology Readiness Survey: Summary Report. Great Falls, VA: The Center for Excellence in Service, Robert H. Smith School of Business, University of Maryland, 2006.

The National Technology Readiness Survey (NTRS) reports on attitudes and actions regarding technology, the Internet, and “e-services.” Focused on consumer interests, the survey gauges individuals’ “technology readiness” and determines societal and commercial developments and movements related to technology. The survey reports on the following five areas: (1) consumer awareness and interest in 3G technology; (2) telecommuting; (3) e-government; (4) e-services; and (5) e-health. Although the survey does not focus on online learning within an education context, its findings highlight important characteristics and behaviors of consumers in general. These findings can be used to inform a learner-centered approach to design and implementation of programs that involve OWI.

Russell, Thomas L. The No Significant Difference Phenomenon: A Comparative Research Annotated Bibliography on Technology for Distance Education. Montgomery, AL: The International Distance Education Certification Center, 2001.

Russell provides a thorough annotated research bibliography, comprised of 355 research papers and reports. The papers in the book evidence the “no significant different (NSD)” phenomenon in which students demonstrate comparable learning outcomes in face-to-face and alternative, distance learning situations. Russell’s companion website, <http://nosignificantdifference.wcet.info/index.asp>, provides access to articles, studies, and findings not identified in the aforementioned published bibliography. Articles are grouped by year and cover work from 1928 through 2006. Within this research context, both the book and the companion website offer practical suggestions about best practices for e-learning in academic settings.

Salmon, Gilly. E-Tivities: The Key to Active Online Learning. London: Kogan Page, 2002.

Salmon examines the distinctiveness of online learning as an activity in its own right and explores the skills that participants (both teachers and learners) need to navigate and be successful in an online learning environment. Dividing the book into two main sections, Salmon first addresses “Concepts and Cases” in which she identifies characteristics that are unique to online teaching and learning, highlighting numerous ways in which instructors and students can respond to those characteristics. In the second main section, she offers a comprehensive list of practical pedagogical suggestions that can be used by both new and experienced practitioners of online learning. Grounding her advice within a usable framework, Salmon also presents a five stage model of teaching and learning online.

Schank, Roger. Designing World-Class E-Learning: How IBM, GE, Harvard Business School, and Columbia University Are Succeeding at E-Learning. New York: McGraw-Hill, 2002.

Schank investigates ways in which the Internet can be leveraged within employee training programs. He stresses the importance of computer simulated practice and

experiment activities that afford trainees opportunities for skill mastery in a low stakes, high support setting. The book is divided into four parts that explore (1) a problem-based approach to e-learning, (2) instructional design principles, (3) real-life examples of e-learning training programs, and (4) mechanisms for evaluating and measuring e-learning. Although his work focuses on self-paced, content-based, human-to-computer simulations rather than human-to-human online interaction, the methods discussed can be applied to certain dimensions or components of an OWI context.

Schank, Roger. Lessons in Learning, E-Learning, and Training: Perspectives and Guidance for the Enlightened Teacher. San Francisco: Pfeiffer, 2005.

Schank highlights common obstacles encountered by instructional designers and trainers in the field of e-learning. Each essay provides insight into the experience of training individuals online. In doing so, Schank focuses on three primary areas: (1) expectations about teaching and learning; (2) adult learning and ways that learners assimilate information and skills, and (3) the optimal uses and limitations of technology. Schank's work is divided into nineteen chapters, each including practical examples and recommendations for practitioners. Although the work uses primarily corporate examples, his implementation principles can be applied to academics as well.

Seale, Jane. E-Learning and Disability in Higher Education: Accessibility Research and Practice. New York: Routledge, 2006.

Seale examines "the social, educational and political background behind making e-learning accessible in higher and further education," as she "considers the role of, and provides advice for, the key stakeholders involved in e-learning." Among Seale's topics are the opportunities afforded by e-learning for students with disabilities; accessibility legislation and its impact; current e-learning practices and their guidelines and standards; the reliability and validity of evaluation instruments for accessibility related assessment; and best practices for delivering accessible e-learning. Looking ahead, the author offers a "tentative framework for exploring and understanding future accessible e-learning practice."

Shank, Patti. The Online Learning Idea Book: 95 Proven Ways to Enhance Technology-Based and Blended Learning. San Francisco: Pfeiffer, 2007.

Shank provides extremely practical, proven recommendations for improving Internet-based and computer mediated instruction and learning. Her work offers a comprehensive list of activities, approaches, techniques, and strategies for online learning. The book is divided into two main sections; the first sections cover issues associated with learners, activities, and assessments. The second section covers issues associated with instructional design. Within these main sections, each chapter follows a similar template, providing: (1) a definition of the particular activity or technique; (2) real-life examples of the activity in practice; (3) an explication of learning objectives; and (4) recommendations for how the activity can be deployed in a new context. These recommendations have numerous application to OWI learning environments.

Waterhouse, S., and O. Rogers Rodney. "The Importance of Policies in E-Learning Instruction." EDUCAUSE Quarterly 27.3 (2004): 28-39.

Waterhouse and Rogers open by stating that most professionals interested in distance learning, whether wholly online or hybrid, understand the importance of the course site, where announcements, the syllabus, and various learning materials are housed. However, they ask, "how many instructors have thoroughly considered the importance of posting policy documents on a course web site?" This is an omission with serious implications, for Waterhouse and Rogers argue that while students always need a strong awareness of what the instructor expects, as well as what they can expect from the instructor, "this need is more urgent for e-learning students." Included among the policies that instructors might consider posting are those that relate to e-learning, student privacy, e-mail, discussions, software standards, assignments, technical assistance, student code of conduct, and intellectual property rights. Some of these policies, they say, might better be "formulated at the institutional level rather than at the level of individual courses."

Online Writing Centers

Ahrenhoerster, Greg, and Brammer Jon. "What's the Point of Your Owl? Online Tutoring at the University of Wisconsin Colleges." The Writing Lab Newsletter 26.2 (2002): 1-5.

Ahrenhoerster and Brammer argue that writing lab and OWL directors should reexamine why they are implementing OWL services and determine whether they actually are attempting to reach students or simply implementing technology "without purpose." Their own small study of satisfaction surveys suggested that only half of the students (out of 20) expressed satisfaction with their online peer tutoring services, and those were second semester writers; final grades suggested that all students benefited about equally, however. They restructured their program to include more individualization in tutor response and decided to provide more assistance at the sentence level, which is what many first-year students requested.

Anderson, Dana. "Interfacing E-mail Tutoring: Shaping an Emergent Literate Practice." Computers and Composition 19 (2002): 71-87.

Anderson analyzes the e-mail interface of 29 online writing labs (OWLs) to see how the interface itself constructs writers' expectations and therefore their experiences in this medium. After analyzing the language on these sites, Anderson argues that the process of shaping writers' goals and expectations begins with the interface that enables online communication. Writing center administrators should therefore consider the language and design of e-mail portals a significant site of writing center literacy. Anderson provides a taxonomy based on his observations of sites which provide either: (1) "general prompts that students should answer prior to attaching a question or document to their e-mail message," or (2) webforms "consisting of various files in which students provide specific information." Anderson categorizes the webform prompts as "simple," "intermediate," or "extensive." He also categorizes these sites' representations of tutors as ranging from "functionality to personality of representation."

Bell, Diana C., and Mike T. Hubler. "The Virtual Writing Center: Developing Ethos." The Writing Center Journal 21.2 (2001): 57-77.

Bell and Hubler argue that writing center listservs constitute a "social medium" and not just a mechanism for communication. The authors rhetorically analyze their writing center listserv postings for two consecutive semesters to see how ethos is generated through individual and collective postings as new tutors merge with returning tutors to constitute a type of new subjectivity that Maurice Charland calls a "people." Isolating exchanges in the listserv when community hierarchies are established through the validation or silencing of individual posts, the authors model a process that other administrators can replicate in order to understand their own virtual communities and the impact of those virtual communities on face-to-face interactions among tutors and writers.

Harris, Muriel. "From the (Writing) Center to the Edge: Moving Writers along the Internet." The Clearing House 69.1 (1995): 21-23.

Harris analyzes what were (in 1995) the three most common methods of electronic writing center work: e-mail, Multi-user domain Object Oriented (MOO) environments, and the Internet. E-mail allows students to more easily send writing to tutors, MOOs enable quick conversations, and the Internet provided some mix of each. This is one of the earliest theoretical explorations of OWI in the writing center setting.

Harris, Muriel, and Michael Pemberton. "Online Writing Labs (Owls): A Taxonomy of Options and Issues." Computers and Composition 12 (1995): 145-159.

Harris and Pemberton describe how an increasing number of writing centers are beginning to implement some form of online tutoring. They discuss this transition and offer advice to others in the process. They examine the various technologies being used—e-mail, Gopher, Worldwide Web (WWW), newsgroups, synchronous chat systems, and automated file retrieval (AFR) systems—and explore their effective uses. Harris and Pemberton also analyze online tutoring in light of such factors as user access, network security, computer illiteracy, institutional missions, writing center goals, computing center priorities, and computer programmers' attitudes. They argue that successful OWLs would manage technology by focusing on the ultimate pedagogical goals of the lab.

Healy, Dave. "From Place to Space: Perceptual and Administrative Issues in the Online Writing Center." Computers and Composition 12 (1995): 183-193.

Healy explores some of the hidden implications of online writing centers. Rather than focus on technology or even pedagogy, he examines the effects of the decentralization of the center that comes with the move online. He notes that directors have a simpler time scheduling their tutors but a harder time overseeing the conferences. On the other hand, the electronic chats transcripts can be stored in a database, and Healy points out that there are some Big Brother-type issues to be concerned about. He also describes the complicated notion of ethos in an online writing center; when the students can't see their tutors, how will they judge their authority? Again, there are positive and negative aspects to this, and Healy concludes with a reminder that using technology for writing instruction will have many unintended consequences. This is an important reminder for us as writing instruction is much more fully online than it was in the mid-90s.

Hewett, Beth L. "Generating New Theory for Online Writing Instruction." Kairos: Rhetoric, Technology, and Pedagogy 6.2 (2001). 17 Feb. 2009 <<http://kairos.technorhetoric.net/6.2/binder.html?features/hewett/index.html>>.

Hewett argues that an understanding of OWI supported by small, local, and/or anecdotal studies is insufficient. She calls, instead, for a theory-generating stance to respond to research questions based in practice; such a stance would lead to theory grounded in a "cycle of empirical practice-based research, analysis, synthesis, discussion, and theorizing." This webtext specifically considers online writing labs (OWLs) and CMC as

examples of online settings where practice-based research is necessary for finding best practices in OWI. Of particular interest, Hewett analyzes example online tutorials and suggests research questions that emerge for further study.

Hewett, Beth L. "Synchronous Online Conference-Based Instruction: A Study of Whiteboard Interactions and Student Writing." Computers and Composition 23 (2006): 4-31.

Hewett describes a small-scale, empirical study of synchronous conference-based OWI using an electronic whiteboard in a Smarthinking, Inc. tutorial setting. Linguistic analysis of participant talk indicates that the interactions were both idea-development focused and task oriented as opposed to socially oriented. While many interactions consist of detailed dialogue in primarily declarative language, nearly half of the talk was oriented toward achieving interpersonal connections, facilitating the interaction, and communicating about the whiteboard's workspace. Textual analysis of the drafted student writing after tutoring indicates that nearly two thirds of the interactions could be connected through iterability or presupposition with the writing and revisions. Most of the traceable writing and revision changes were meaning-preserving and of insignificant to moderate rhetorical force. The study suggests potential "best practices" for online instructor training, for student preparation to use whiteboard platforms, and for future research into synchronous conference-based OWI.

Hewett, Beth L. "Theoretical Underpinnings of Owls." The Owl Construction and Maintenance Guide. Ed. James A. Inman and Clinton Gardner. CD-ROM. IWCA Press, 2002.

Hewett examines online writing labs (OWLs) both theoretically and practically. Theoretically, she finds that OWLs tend to be supportable from the current-traditional, neo-classical, neo-Platonic (expressivist), and social constructive positions. Practically, she finds that OWLs gain their functionality in connection to various theories: static learning materials can be connected to current-traditional thinking, for example, but this connection does not imply a negative utility for student learning even though current-traditional thinking is typically eschewed. Hewett finds theoretical complexity in both asynchronous and synchronous online tutorials, the former of which is more monologic yet still a dialogue tied both to expressivist and social constructionist thinking. She also considers OWLs through their utility as sites that support student and teacher publication, professional development, community outreach and support, writing across the curriculum (WAC), and inclusive learning support. Finally, Hewett provides a vision of the OWL's place within a writing program.

Higgison, Carol. Online Tutoring E-Book. Otis E-Workshop. Scotland: Heriot-Watt University, The Robert Gordon University, 2000.

Higgison's work provides practical and accessible information regarding one to one online instruction across a variety of international and disciplinary fields. Based on proceedings from an online conference held in 2000, the book contains nine chapters

from contributing speakers as well as 329 program descriptions and case studies. The chapters cover such issues as the nature of online learning, instructor and tutor roles, developing and facilitating online learning community, assessment and evaluation methods, institutional support, and quality assurance. Although the work is from 2000, it represents early practice and thinking about one to one online learning that is still relevant today.

Hobson, Eric H, ed. Wiring the Writing Center. Logan, UT: Utah State University Press, 1998.

Hobson addresses both the theory and practice of technology in the writing center. Because the writing center is traditionally a face-to-face venue for supplemental learning assistance, OWLs must “straddle” the technology “fence.” Contributing authors consider both models and strategies for wired writing centers and their critical assessment, including Barbara Monroe's analysis of an asynchronous OWL tutorial conference to discern how the tutor addressed the student's writing and Rebecca Rickly's discussion of tutor training. Though somewhat dated, the book provides currently useful advice.

Hubler, Mike T., and Diana Calhoun Bell. "Computer-Mediated Humor and Ethos: Exploring Threads of Constitutive Laughter in Online Communities." Computers and Composition 20 (2003): 277-294.

Hubler and Bell describe the rhetorical functions of humor in online communities. They argue that humor serves a critical ethos function in these communities created by mailing lists. They employ humor theory, connecting what is already recognized as a social dimension in joking to the contemporary interpretation of ethos as a constitutive force. Hubler and Bell conclude that humor constitutes a virtual group ethos, and their analysis emphasizes the computer mediation of this ethos, drawing close attention to the threads of constitutive laughter that form in mailing list discourse. They then apply their model to the rhetoric of a university writing center mailing list.

Inman, James A., and Clinton Gardner, eds. The Owl Construction and Maintenance Guide. CD-ROM. IWCA Press, 2002.

Inman and Gardner collect a variety of materials pertaining to OWL construction, maintenance, and bibliographic resources. This guide is unusual in that it is available only as a CD-ROM from the International Writing Centers Association (IWCA); the format enables immediate practical use of the texts in a variety of educational/academic settings. The authors provide both informational and theoretical articles that consider such issues as the history and theory of OWLs, where OWLs exist in some writing programs, OWLs in particular disciplines and specific contexts, planning and managing OWL sites, building the website, acquiring grants, choosing between asynchronous and synchronous tutoring, training tutors, maintaining OWLs, assessing OWLs, and researching and publishing about OWLs. This is a good source for identifying turn-of-the-century theory and practices in OWLs that likely have continuing application.

Jacobs, Geert, Liesbeth Opdenacker, and Luuk Van Waes. "A Multilanguage Online Writing Center for Professional Communication: Development and Testing." Business Communication Quarterly 68 (2005): 8-22.

Jacobs, Opdenacker, and Van Waes detail the structure and process of the Calliope Online Writing Center started at the University of Antwerp, Belgium, which aims to help students improve their writing skills in any one of five different languages—Dutch, English, French, German, and Spanish. The authors examine the language-specific and context-specific nature of Calliope's modules. By analyzing student scores and comments on student's work, the authors conclude that the implementation of the modules has been successful.

Jones, Rodney H., Angel Garralda, Davis C.S. Li, and Graham Lock. "Interactional Dynamics in on-Line and Face-to-Face Peer-Tutoring Sessions for Second Language Writers." Journal of Second Language Writing 15.1 (2006): 1-23.

Jones, Garralda, Li, and Lock examine two types of peer-tutoring and compare online tutoring interactions with face-to-face tutoring interactions. Using Halliday's functional-semantic view of dialogue, the logs of online tutoring sessions were coded and compared with those from face-to-face interactions. The results showed that online tutoring fostered greater participation on the part of the student being tutored while face-to-face interaction tended to result in hierarchical structures of communication controlled predominantly by the tutor.

Kastman Breuch, Lee-Ann M., and Sam J. Racine. "Developing Sound Tutor Training for Online Writing Centers: Creating Productive Peer Reviewers." Computers and Composition 17.3 (2000): 245-63.

Kastman-Breuch and Racine provide an overview of the issues unique to online tutoring programs. Their goal is to help those involved in the training of online tutors—including administrators, developers, and the tutors themselves—build programs that specifically address the challenges of online tutoring. They describe three ways to positively approach online tutoring: (1) appreciating text-only environments, (2) developing procedures for responding online, and (3) creating appropriate roles for online tutors. They discuss methods for training tutors in these approaches, and they claim that a training program that includes these aspects will lead to more productive and more effective online tutors.

Kimball, Sara. "Cybertext/Cyberspeech: Writing Centers and Online Magic." Writing Center Journal 18.1 (1997): 30-48.

Kimball recounts experiences using a MUD, a synchronous technology, in an early iteration of an online writing lab (OWL). Noting the hybrid nature of speech and writing in such an environment, she considers the nature of such a conversation and the "magic of online identity," which can be enabled by online anonymity. She concludes that online communication can unite "writers separated by distance" and can give writing centers

new opportunities for communicating with their publics. Kimball suggests studying and understanding the online medium and examining assumptions brought to the experience.

MacDonald, Janet. Blended Learning and Online Tutoring: A Good Practice Guide. Burlington, VT: Gower, 2006.

MacDonald adopts a pragmatic stance on blended learning, “including good practice in both asynchronous and synchronous tutoring,” which she does by “situating the use of online media within a well-grounded teaching and learning strategy.” The author has divided her book into three parts: (1) current practice in blended learning; (2) practical ways to support students while using online tools; and (3) various approaches to “learning development” for students who will work online as part of a blended course. MacDonald argues that blended learning offers the “flexibility to accommodate the varied requirements of pedagogies, disciplines and levels of course, together with the needs of a wide variety of learners.”

Nelson, Jane, and Cynthia A. Wambeam. "Moving Computers into the Writing Center: The Path to Least Resistance." Computers and Composition 12.2 (1995): 135-43.

Nelson and Wambeam describe the transformation writing centers are undergoing through the increased use of computer technologies. They argue that writing centers should take a leading role in the development and use of computers for writing. To accomplish this, writing centers will need to establish partnerships across campus that are built on trust, commitment, and open communication. Nelson and Wambeam stress the importance of the writing centers in a wider shift to computer-aided instruction through projects like computer writing classrooms and online writing labs.

Opdenacker, Liesbeth, and Luuk Van Waes. "Implementing an Open Process Approach to a Multilingual Online Writing Center." Computers and Composition 24 (2007): 247-265.

Opdenacker and Van Waes describe the use of Calliope, an online writing center developed at the University of Antwerp in Belgium. The writing center was designed to function in a multilingual environment, emphasizing a constructivist approach to process-oriented writing that facilitates collaborative writing and peer review. The authors focus on describing the features of Calliope as well as future plans to incorporate an integrated writing environment that will allow students to compose within the application.

Rubin, Lois. "I Just Think Maybe You Could . . . : Peer Critiquing through Online Conversations." Teaching English in the Two-Year College 29 (2002): 382-392.

Rubin argues that online peer critique is not simply adequate, nor is it only as good as face-to-face review; rather, she claims, “in an online environment, the effectiveness of peer critique is enhanced.” She opens with a background of and justification for peer critiquing by computer, and while allowing for potential difficulties with this medium,

she maintains the benefits outweigh those difficulties. Relying on evidence from the work that her students have done in an online milieu, Rubin is impressed with “the quality—the usefulness of their observations,” as well as with the quantity, since they tended to be “longer and fuller.” Moreover, Rubin claims that her students exerted more of an effort to be polite, so that the authors who received input were not threatened and did not lose self-esteem.

Simpson, Katherine. "Collaboration and Critical Thinking in Online English Courses." Teaching English in the Two-Year College 33 (2006): 421-429.

Simpson recounts a qualitative study using peer tutors to assist both students and the teacher in two community college distance-based, writing courses. Using synchronous chat, three second year, hand-picked peer tutors who previously had taken the researcher’s course provided supplemental instruction to students in ten-week summer courses. Simpson’s results, supported primarily by interviews and course evaluations, suggested that students developed rapport with tutors and believed they had sufficient instructional contact and support; additionally, critical thinking may be aided by the peer tutorials.

Thomas, Sharon, Danielle DeVoss, and Mark Hara. "Toward a Critical Theory of Technology and Writing." Writing Center Journal 19.1 (1998): 73-86.

Thomas, DeVoss, and Hara argue for bringing a critical theory of technology, one that acknowledges the cultural impact of the technology, into writing center practices. They note the tension in conflicting claims about the nature of online consulting: that it is radically different from traditional tutoring and that it is not much different if it is used well. They see the first as an instrumental theoretical approach and the second as a substantive approach. They describe their work based from the writing center to help teachers and students use technology to continue classroom-based discussions, to conduct Internet-based research, and to publish writing on the Web.