Electronic Literacy: Teaching Literary Reading through the Digital Medium

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ELECTRONIC LITERACY: TEACHING LITERARY READING 
THROUGH THE DIGITAL MEDIUM

by

Robert Adams Rozema

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
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Western Michigan University
Kalamazoo, Michigan
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Over the last decade, digital technology has become an increasingly important part of education. In the discipline of English language arts, digital technology has been enlisted to teach writing, as the word processor and more recently, the World Wide Web, have provided new tools and new publishing opportunities for student writers. The presence of digital technology is less pronounced, however, in literature instruction in secondary schools. In both theoretical and practical discussions of digital technology and literature, the two mediums have been conceived as radically different. This dissertation argues that the digital medium, and more specifically the World Wide Web, can support literature instruction at the secondary level. It begins by identifying two central concerns that have marked historical and contemporary approaches to literature instruction: concern for the text and concern for the reader. Next, through an examination of hypertext, it proposes that the digital medium can meet both concerns, and supplies a theoretical model for implementing digital technology in the literature curriculum.
Subsequent chapters illustrate how this model functions in a practical context by drawing on action research conducted in a secondary classroom. Specifically, these chapters describe how two Web-based learning tools, the literary MOO and the WebQuest, were used to reinforce reader-oriented and text-oriented literature instruction. The literary MOO, used in conjunction with the novel *Brave New World*, helped students evoke and elaborate on the story world of the text, make personal connections between the text and their own lives, and discuss the text in an egalitarian and collaborative way. The WebQuest, used in conjunction with the novel *Heart of Darkness*, helped students learn about critical theory and read the text in an analytical and text-centered way. The dissertation concludes by considering how English language arts teachers might best be trained to integrated Web-based technology. Drawing on case studies of four intern teachers, this final chapter argues that teacher educators must equip their students to use technology in ways that are practical, as well as theoretically sound.
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Robert Adams Rozema
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ELECTRONIC LITERACY: TEACHING LITERARY READING THROUGH THE DIGITAL MEDIUM

INTRODUCTION

Rationale for this Study

In a 1997 English Journal article, Jim Cope, then a professor of adolescent literature at Longwood College, describes his research with high school readers. Inspired by the work of G. Robert Carlsen and Anne Sherrill, co-authors of Voices of Readers: How We Come to Love Books (1988), Cope asked nearly three hundred high school seniors to compose short autobiographies about their reading experiences, both in and out of school. The students were selected from advanced, general, and remedial English classes, but their reading autobiographies nonetheless expressed one common theme: literature classes were turning them off (18). This finding, voiced again and again by the students in the study, speaks to our fears as English teachers: that despite our best efforts, too few of our students are engaged in their literature classes. The literature we love is somehow failing to grab and hold the majority of our students.

This concern leads reflective practitioners to a galaxy of related questions, most clustered around our texts and our students. We may wonder, along with Carlsen and Sherrill, if the classics dampen our students’ enthusiasm for reading. We might consider infusing our curriculum with young adolescent literature, as Carlsen, Pamela Carroll, and many others have suggested, though we are concerned by the crowding out of canonical texts. We might change our literature class into a reading workshop—where books are chosen by students and read independently—as Nancy
Atwell did in the 1970s in upstate Maine, and as evidenced by a recent article in the *English Journal*, current teachers are still doing (Lausé 24). We may even abandon commercial anthologies, worried that such textbooks overemphasize textual analysis or shortchange diversity. Torn between validating our students’ interpretations of literature and asserting our own, between empowering learners and revering the text, we repeatedly ask ourselves: How can we help our students discover the love of literature that led most of us to become English teachers in the first place?

One answer, this dissertation argues, comes in the form of Web-based technology, when it is used in imaginative and effective ways. Over the past decade, we have watched technology change both our schools and our students. Simply put, schools possess more technology resources than ever before. The National Center for Educational Statistics recently estimated that in 1994, only 35 percent of American public schools had Internet access. By 2001, this number had increased to 98 percent. Nor are computer resources restricted to wealthy districts or elite schools. Today, schools with high minority enrollments and students on assisted lunch programs are just as likely to possess Internet-connected computers (“Internet Access in U.S. Public Schools” 5). The digital divide, at least in terms of computer hardware, is rapidly closing.

During the past few years, wireless technology has made it easier for teachers and students to access the Internet at school. In 2002, the Peak Group, a provider of research for the educational technology market, estimated that the number of wireless networks operating in schools jumped 50 percent from 2001-2002 (“New Report on Wireless Technologies” par. 4). And the National Center for Educational Statistics reports that in 2002, 23 percent of schools had wireless connections of some form (“Internet Access in U.S. Public Schools” 4). If secondary schools follow the lead of
universities, where wireless networks have become increasingly common since 2000 (Olsen 1), then the Internet will soon be even more prevalent in our classrooms, available on every student’s desk.

And it is not just our schools that are changing: many of our students now possess remarkable technology-related skills. These students are members of what Donald Tapscott labels the “Net generation,” a highly proficient subset who grew up surfing the Web, sending e-mail, designing Web pages, participating in threaded discussions, and holding conversations via Instant Messenger and chat rooms. This Net generation will continue to grow as the digital divide shrinks. A 2003 study conducted by the Grunwald Association claims that 66 percent of low-income homes now have Internet access, a figure up from under 50 percent only two years ago. The same study showed that children under seventeen spend nearly as much time using the computer as they do watching television (“Study: Digital Divide Shrinks” par. 2). More and more of students will come to our secondary classrooms familiar with the Web and its many applications.

The teachers of today and tomorrow, then, need to know how and why to use technology—and particularly the tools and resources of the Web—in their classrooms. While many schools possess adequate technology resources, many teachers still feel uncomfortable using technology. As recently as 1999, only 30 percent of practicing teachers felt confident integrating technology into their curriculums (“Teachers’ Tools for the 21st Century” 75). In English language arts, a number of texts have helped to address this concern. *Weaving a Virtual Web: Practical Approaches to New Information Technologies* (Ed. Gruber 2000), *10 Easy Ways to Use Technology in the English Classroom* by Hilve Firek (2003), and *The Tech-Savvy English Classroom* by Sara Kajder (2003) concentrate on practical
methods, illustrating how to integrate technology with relevant classroom examples. Both Firek and Kajder, for example, include a chapter on the WebQuest, one of the Web learning tools I describe in this dissertation. More theoretical considerations, among them Espen Aarseth's *Cybertext: Perspectives on Ergodic Literature* (1997), Jerome McGann's *Radiant Textuality: Literature after the World Wide Web* (2001), and George Landow's *Hypertext 2.0: The Convergence of Contemporary Theory and Technology* (1997), have explored how digital technology is changing literature studies, but have had limited influence on classroom practitioners.

This study will demonstrate not only how, but also why the World Wide Web should be used to engage secondary students in reading literature. Its aims are both theoretical and practical. Making explicit connections between the emphases of contemporary literature instruction and the resources and tools of the World Wide Web, it first provides a theoretical rationale for integrating the Web into literature study. It then illustrates how particular Web tools—the MOO and the WebQuest—can reinforce literature instruction in a secondary context. Finally, it contends that future English language arts teachers must be trained to use Web-based technology in ways that are both theoretically grounded and practically effective.

Research Methodology

This dissertation is based on the research I conducted in two separate classroom environments: a British literature class for high school seniors at Grand Rapids Christian High School, and a literature methods course for pre-service teachers at Western Michigan University. In both settings, my methodology followed a practical action research model. Practical action research involves a systematic inquiry done by teacher-researchers (or other individuals in an educational setting) to
gather information about and improve the ways their particular school operates, how they teach, and how well their students learn (Mills 6). Such research can be broad in scope, as when an entire faculty examines the problem of school violence, or more localized to an individual classroom, as when a particular teacher addresses a specific problem such as low reading comprehension. The practical action research model lent itself well to this study for a number of reasons.

First, this research model favors a descriptive, rather than explanatory purpose. A descriptive purpose calls for examination and observation, rather than for proof of causality. As Marion MacLean and Marian Mohr explain, teacher-researchers generally prefer descriptive research, since their classrooms are ill-suited to experimental research design, which necessitates closely monitored control and variable groups, favors quantitative data, and requires statistical analysis. A descriptive purpose, in contrast, allows teacher-researchers to explore a classroom or school issue in a way that coincides with their existing responsibilities as teachers (47).

Action research is also a flexible approach, well suited to the changing dynamics of high school and college teaching. The action research model allows for fluid movement between research phases, as the teacher-researcher adjusts her methods to suit the ever-changing situation. Kurt Lewin, who coined the term action research in the 1940s, defined the action research process as a cyclical movement. According to Lewin, the action researcher identifies a problem, makes a plan of action to address the problem, executes the plan, and evaluates the success of the plan. Based on this evaluation, he modifies the original plan, implements the new plan, and so on until the problem has been addressed (Smith 2). Similarly, Mills suggests that practical action research done in the classroom consists of a “dialectic spiral” in
which the teacher-researcher moves back and forth between identifying an area of focus, collecting data, analyzing and interpreting data, and developing an action plan (19). Though critics contend that these in-process adjustments sacrifice the objectivity and rigor of the research, the flexibility of the action research process allows teachers to test theories and examine practices in a fluid and dynamic manner.

The practical action research model is also flexible in the data types it accommodates. Marion MacLean and Marian Mohr observe that a teacher-researcher may draw on a range of quantitative and qualitative data, including but not limited to audio and video recordings of students; student work such as completed assignments, tests, or reflective writing; surveys or questionnaires with objective or open-ended questions; and classroom records such as grades and attendance reports (36-47). Additionally, the teacher-researcher keeps a research log throughout the process, in which she records notes, observations, and other pertinent material. Gathering data from such diverse of sources is not only permissible, it is of critical importance for teacher-researchers. As MacLean and Mohr note:

In teacher research both quantitative and qualitative data are used to develop interpretations and understandings of the complex interactions of teachers' teaching and students' learning, but neither kind of data alone is enough, especially for findings that are meant to go beyond classrooms to school districts as a whole. As teacher research contributes more widely to evaluations of achievement and programs at the school level, we believe that a combination of qualitative and quantitative data will enable schools and districts to make decisions that are data driven and informed by local research. (51)

To portray their classrooms and schools as fully as possible, then, teacher-researchers must rely on both quantitative and qualitative data. This blend of data types lends authenticity, substance, and finally impact to their research.

Lastly, practical action research has immediate meaning for multiple lives. Since it arises from active intervention in real-world contexts, it has real-world
consequences. Chief among these is the improvement of classroom practices that results when the findings of a disciplined inquiry are applied. But the teacher-researcher also benefits, as does the research community at large: the teacher-researcher becomes a more reflective practitioner through the process, and the community—whether one or more colleagues, the entire school faculty, or the educational profession—gains a context-rich analysis of an important issue.

An Outline of this Study

This study follows the contours of the practical action research model. Descriptive in intent, it begins with an inquiry, relies on data drawn from my own classrooms to explore and refine that inquiry, and ultimately aims to evolve literature instruction at the secondary and teacher-education levels. The central inquiry of this dissertation asks how literature teachers at the secondary level can use the World Wide Web, now a fixed presence in schools, to teach literary reading. This inquiry raises two additional subquestions: first, how is literary reading currently conceived; and second, how does the World Wide Web fit into or complicate our understanding of literary reading?

Chapter One addresses the first of these subquestions: how is literary reading currently conceived? Examining the commercial literature anthology as an indicator, it suggests that the practice of teaching literature tries to accommodate two central and sometimes conflicting concerns: concern for the reader and concern for the literary texts of the canon. These dual themes, the first stressing the personal growth and empowerment of the individual, the second emphasizing the lasting cultural and aesthetic value of literary works, have shaped contemporary literature instruction and given rise to current models of literary reading. This chapter explores both text-
oriented and reader-oriented models of literary reading, examining the critical theories on which they are founded, reader-response theory and New Criticism. The purpose of this exploration is to establish a theoretical framework for integrating Web-based technology into the secondary literature curriculum.

Chapter Two addresses the second important subquestion: how does the World Wide Web fit into or complicate our understanding of literary reading? In exploring this question, I first scrutinize hypertext, the electronic discourse at the center of current discussions about digital technology and literature. Hypertext enthusiasts contend that it reconfigures literary reading, radically altering conventional understandings of text, reader, and author. This chapter argues instead that the World Wide Web has much in common with existing literary media. Moreover, this chapter contends that the Web can be used to reinforce the conventional understanding of literary reading already established, and sets forth a model for doing so. This model posits that conceptualizing the Web as an environment supports a reader-oriented approach to literary reading, while understanding it as an encyclopedia supports a text-oriented approach to literary reading.

Chapters Three and Four move my discussion of literature and technology from theory into practice, providing the results of the classroom research I conducted in my high school senior literature class. My research evaluated how specific Web applications can be used to teach literature. In Chapter Three, I detail how I used a synchronous Web environment called a MOO to support a reader-oriented approach to the novel *Brave New World*. In Chapter Four, I describe how I used another application, a WebQuest, to support a text-oriented approach to *Heart of Darkness*.

The classroom research that comprises both chapters was approved by Human
Subjects Institutional Review Board under the category of exempt (Appendix A), since the research was undertaken as part of the normal educational procedures of my senior literature class. The class consisted of sixteen second-semester seniors, all of whom consented to participate with the knowledge that their work would become part of this dissertation. The first phase of the research took place during February and early March of 2002, when I developed and implemented the *Brave New World* MOO. During approximately five weeks, students completed generated data in two forms: first, they completed specific assignments within the MOO environment which were recorded by an internal logging mechanism; second, they completed an evaluative survey at the conclusion of the project. The assignments are described in detail in Chapter Three, and the survey is included in Appendix D of this dissertation. I also maintained a research log, in which I recorded my own observations and insights throughout the process.

The second phase of this study occurred during late March of 2002. This phase explored another Web application, the WebQuest. I designed a WebQuest for use with *Heart of Darkness*, another text from the senior literature curriculum. After reading the novel, students spent five days completing the *Heart of Darkness* WebQuest. The WebQuest required students to research one of five schools of literary criticism, answer guiding questions about that critical perspective in a research journal, and finally apply the perspective to select passages from *Heart of Darkness*. Students used an online threaded discussion to post their interpretive responses. At the conclusion of this project, I collected their research journals and their online responses. The *Heart of Darkness* WebQuest is also described at length in Chapter Four and is included in Appendix E of this dissertation.

Taken together, Chapters Three and Four illustrate how the Web—as both an
interactive environment and encyclopedia—supports reader-oriented and text-oriented approaches to literary reading. In Chapter Three, I describe how *Brave New World* MOO, an immersive and participatory environment, allowed my students to envision the story world, make connections between the text and their own lives, and reflect critically on the text itself. In Chapter Four, I detail how the *Heart of Darkness* WebQuest utilized the encyclopedic resources of the Web, providing my students with multiplicity of critical lenses from which to read the novel.

The last chapter of my dissertation addresses Web integration in secondary literature instruction beyond my own classroom. Specifically, I focus on the issue of teacher preparation. Having advanced the World Wide Web as an effective tool for teaching literature at the secondary level, my dissertation ends by exploring how technology-enriched methods courses can best prepare pre-service teachers to use digital tools in similarly meaningful ways. To answer this question, I again rely on classroom research, this time involving pre-service teachers who took their capstone literature methods course, English 480: Teaching Literature in Secondary Schools, in Western Michigan’s new wireless English Education Laboratory. Chapter Five follows four students through their internship experiences, as they cope with differing degrees of access to resources, as they implement the Web-based assignments they developed in English 480, and finally, as they begin seeing themselves as technology users.

My research involving these students was approved by the Human Subjects Institutional Review Board under the category of exempt (Appendix B). I employed two research strategies, case study and survey. For the case study, I selected four volunteer students who had taken my English 480 class during the fall of 2002 and were interning in local schools during the spring of 2003. The four participants were
all seniors in the Secondary English program at Western Michigan University at the
time of the study. They generated data in three different formats. Before their
internships began, they visited their host sites, assessed its technology resources, and
wrote short anticipatory essays outlining their expectations for using technology
during their intern teaching. During the internship semester, they participated in an
online threaded discussion whose focus was technology integration. The online
discussion allowed the students, all interning at separate locations, to share their
successes and failures with each other and me, and created a permanent written log of
their experiences. At the conclusion of their internships, I interviewed the pre-service
teachers. The case studies are supplemented with data generated by a survey taken by
nineteen additional interns near the conclusion of their spring 2003 internship. The
thirty-three question survey dealt with three focus areas: access to technology
resources, effectiveness of Web-based assignments, and attitude toward technology
integration. The survey is included in Appendix F of this dissertation.

The results of this study, discussed fully in Chapter Five, support the findings
of Chapters Three and Four. If English language arts teachers are to integrate the
Web in meaningful ways—ways that are as theoretically grounded and practically
applied as the *Brave New World* MOO and the *Heart of Darkness* WebQuest—then
they must be amply prepared to do so. Chapter Five concludes my dissertation by
looking forward, identifying key areas of concerns for technology-enriched methods
instruction, and challenging teachers and teacher educators to continue working
toward meaningful technology integration.
CHAPTER I

LITERARY READING: READER-ORIENTED AND TEXT-ORIENTED APPROACHES

More obviously, we have to note the powerful, very pervasive influence of mnemonic irrelevances. These are misleading effects of the reader’s being reminded of some personal scene or adventure, erratic association, or the interference of emotional reverberations from a past which may have nothing to do with the poem.

I.A. Richards, *Practical Criticism* (1929)

*The reader brings to the work personality traits, memories of past events, present needs and preoccupations, a particular mood of the moment, and a particular physical condition. These and many other elements in a never-to-be-duplicated combination determine his response to the peculiar contribution of the text.*

Louise Rosenblatt, *Literature as Exploration* (1938)

Introduction

Since English emerged as an academic subject over a century ago, secondary literature instruction has tried to accommodate two central concerns: concern for reader and concern for canonical literary texts. These dual themes, the first stressing the personal growth and empowerment of the individual, the second emphasizing the lasting cultural and aesthetic value of literary works, have together shaped contemporary literature instruction and given rise to current models of literary reading. This chapter explores both reader-oriented and text-oriented models of literary reading by examining the two critical theories on which they are founded, reader-response theory and New Criticism. The larger purpose of this exploration is
to establish a theoretical framework for integrating Web-based technology into the secondary literature curriculum.

Textbook as Touchstone: The Commercial Anthology and Literary Reading

The exploration begins with an examination of one of the oldest and most permanent components of secondary literature curriculum: the commercial literature anthology. A staple of the literature classroom, the commercial literature anthology has much to tell us about secondary literature instruction. When its chief components—its organizational structure, its literary selections, and its instructional apparatus—are examined closely, the commercial anthology becomes an artifact, a touchstone that measures the way literary reading is conceptualized and taught at the secondary level.

Consider the following scene, drawn from a typical literature classroom. On the first day of this particular class, an English teacher is distributing textbooks to her junior-level American literature students. She gives each a hefty literature anthology that will serve as the main textbook for the next semester and perhaps longer. Students are not surprised when the Prentice Hall or Glencoe text comes down their row, particularly in an English class. Indeed, over 90 percent of secondary English language arts teachers report using commercial anthologies, according to a 1991 study conducted by Arthur Applebee. The study, the most recent and comprehensive of its kind, also found that 63 percent of these teachers rely on commercial anthologies as their primary source of material. And while teachers use anthologies differently, it is undeniable, as Applebee asserts, that “the anthology clearly plays a major role in the teaching of literature” (“A Study” 1).

What would students notice about their texts on that first day of class? First
perhaps, their sheer size. Surveying the seven most popular anthology series of 1989, Applebee calculated the average length of textbooks to be 917 pages, with an average of 124 selections apiece. He also discovered that textbook length had increased dramatically over the past thirty years: since James Lynch and Bertrand Evans conducted the first rigorous study of high school English anthologies in 1963, the page total of commercial anthologies grew by 47 percent ("A Study" 6-8). This trend has continued to the present decade, with bulky texts even raising health concerns for elementary and secondary students overburdened by heavy backpacks. In 2003, the National Association of State Textbook Administrators (NASTA), the Book Manufactures Institute (BMI), and the Association of American Publishers (AAP), the three organizations that compose the Advisory Committee on Textbook Specifications, began exploring means of making textbooks lighter, and legislation limiting textbook weight has recently been passed in both California and Tennessee ("Advisory Committee for Textbook Specifications" pars.1-6).

The increased girth of commercial anthologies cannot be solely attributed, however, to the inclusion of more literary works. While the number of selections did grow substantially from 1963 to 1991, Applebee found the greater factor in textbook expansion to be the instructional apparatus accompanying the selections. Of the anthologies he examined, an average of nearly 50 percent of the total pages were dedicated to supporting materials, such as information on an author or genre; or study activities, such as pre-reading activities, comprehension questions following a selection, writing assignments, enrichment activities, and skills practice ("A Study" 10). This compares to an average of 34 percent in the 1963 anthologies studied by Lynch and Evans (178).

Such supplementary material is met with skepticism from some English
teachers. Lynch and Evans note that “Teachers report that nothing puts students off quite so much as a plethora of editorial equipment” (178). More recently, in a series of textbook reviews commissioned by *English Journal*, Bruce Appleby, Greg Johnson, and Robert M. Taylor contend that publishing companies overstuff their texts with instructional apparatus. Their review of the 1989 Prentice Hall Literature Series, for instance, charges its editors with including “everyting possible in the series, so [they] can claim that idea/fad/research as part of the series” (“A Hefty New Literature Series” 77). In response, textbook companies claim to offer only what the market wants, citing the demands of teachers, state standards and curricula, and increasingly, standardized tests. Whatever the cause, the commercial anthology now accommodates more extra-textual information than ever before, resulting in a heavier and busier textbook.

But what else, beyond its weight and supplementary material, might a student observe about her American literature textbook on that first day of class? She would do well to take note of its organizational structure, since as Lynch and Evans maintain, “the organization of anthologies is hardly less significant than content for reaching an evaluation of them” (131). If typical, her American literature anthology might be organized according to as many as three different principles: chronology, genre, and theme. She might find “The Raven” by Edgar Allen Poe, for example, included in a chronological division dedicated to early nineteenth-century writers; a genre division concerned with poetry; and thematic/topical division focused on personal loss. The anthology might be further subdivided according to literary techniques, so that “The Raven” would also fall under the heading of “symbolism” or “imagery.”

Among these organizational patterns, Applebee discovered arrangement
according to genre dominant among textbooks for grades seven through ten, while chronological sequence was the most common in texts for grades eleven and twelve, the years when American and British literature courses are generally taught. Even the American and British literature anthologies organized chronologically were frequently subdivided according to genre, so that “Transcendentalism,” for example, might be further split into “Essays” and “Poetry” (“A Study” 8). The multiple modes of organization seem to reveal a tension in the commercial literature anthology. Our American literature student—and more realistically, her teacher—might wonder how to approach “The Raven”: as a part of literary history, an illustration of a particular genre or literary technique, an instance of a larger theme, or some combination of these. Moreover, similar tensions exist in other more germane components of the anthology, namely its literary selections and instructional apparatus.

The selections included in literature anthologies are typically drawn from a wide range of genres. Applebee determined the average commercial anthology contains a variety of genres, including an average one novel or long work of fiction, three plays, seventy-two poems, twenty-six works of short fiction, sixteen works of non-fiction, and seven selections from other genres such as myths or tall tales. As the grade level increased, the genres shifted to include more poetry, particularly in American and British literature, with American literature also emphasizing non-fiction more heavily than earlier grades (“A Study” 10-12). A brief look at a recent textbook, Prentice Hall’s Timeless Voices, Timeless Themes: Bronze Level (2000), finds a similar sampling of genres. An eighth-grade literature anthology, the textbook contains among its 130 works The Christmas Carol by Charles Dickens; “The Charge of the Light Brigade” by Alfred, Lord Tennyson; “Rip Van Winkle” by Washington Irving; an essay entitled “Was Tarzan a Three-Bandage Man?” by Bill Cosby; and
“The Lion and the Statue,” one of Aesop’s fables. To some degree, this variety of genres evidences disagreement over what exactly literature comprises.

Lynch and Evans, for example, advocated removing the novel from literary anthologies entirely, since editors were often forced to include abridged versions or replace novels with novellas. Such novellas, Lynch and Evans contended, were often geared toward adolescents and, by consequence, of dubious literary value (55). More contemporary reviewers of anthologies, in contrast, often lament the absence of more popular genres like adolescent fiction. In their review of *The Elements of Literature* (Holt 1989), Appleby, Johnson, and Taylor suggest that *The Diary of Adrian Mole*, an adolescent novel, might make the tenth-grade textbook friendlier to students (“Another Hefty Literature Series” 93).

Closely related to the disagreement over genre is a second issue, the larger question of the literary canon. Debate over the canon is fierce at all levels of literature instruction, encompassing questions of literary history, diversity, and gender. What does the commercial anthology reveal about the tension between longstanding canonical texts and relative newcomers? Applebee’s research is again helpful, though publishing companies have progressed in incorporating multicultural texts since he conducted his research in 1991. His study found that anthologies for grades seven to ten made an effort to include women and non-white writers, with 26 to 30 percent of the selections written by women, and 18 to 22 percent by non-whites. These numbers drop only slightly in the surveyed American literature anthologies, with 24 percent of selections by women and 16 percent by non-whites (“A Study” 14).

Despite the presence of these writers, however, diversity remains an issue. This is most evident in British literature textbooks, where women and non-white writers are least represented. In 1991, Applebee found only 8 percent of selections in
British literature texts to be written by women and 1 percent by non-whites ("A Study" 14). Again, more recent British literature anthologies have attempted to be more multicultural and gender-equitable in their selections. The most recent edition of Prentice Hall’s *Timeless Voices, Timeless Themes: The British Tradition* (2004), for example, increases the number of women writers to nearly 20 percent and non-whites to 6 percent, including representative works drawn from the former British empire. Still, this increase may not reflect the movement toward multiculturalism occurring at both the university and secondary levels. It seems safe to speculate that commercial anthologies will not soon include texts such as *Oroonoko* (1668) or *The Life of Olaudah Equiano* (1789), which as Allen Webb has illustrated, can provide a colonial context for Shakespeare’s *The Tempest* (89); it seems equally implausible that textbooks will contain *The Book of the City of Ladies* by Christine de Pizan (1405), one text used by high school teachers Liz Dodge and Liz Whaley to supplement their early British literature course (153).

Questions of the canon are also complicated by debate over contemporary writers. “The teaching of literature,” writes Applebee, “always involves finding a balance between relatively contemporary works, which may seem more relevant to young readers, and older works that are part of major cultural traditions.” Commercial anthology series generally strike this balance by including more contemporary writers in textbooks intended for younger students and fewer in those intended for older. Applebee found that 75 percent of selections in seventh through tenth grade textbooks were taken from the twentieth century; with 30 percent of these written in the past thirty years. In comparison, only 53 percent and 27 percent of works in American and British anthologies were taken from the twentieth century, respectively, with 15 percent and 5 percent written in the last thirty years ("A Study"
When anthology series are considered as whole, then, they offer a balance of contemporary voices at lower grade levels and more traditional authors at upper grade levels.

From another point of view, however, the decrease in contemporary authors in American and British literature textbooks amounts to failure on the part of publishing companies. Appleby, Johnson, and Taylor, fault Prentice Hall’s *The English Tradition* (1989) for what they see as a slighting of contemporary voices: “The twelfth-grade text is, an odd way, a throwback . . . there is almost no attempt to deal with contemporary British literature” (“A Hefty New Literature Series” 79). They make a similar complaint about Holt’s *Elements of Literature* series (1989), arguing that the American and British literature volumes “reflect the literary canon as it was seen in the 1950s” (“Another Hefty Literature Series” 93). Though the newest edition of Prentice Hall’s *The British Tradition* (2004) does include a handful of relatively contemporary authors, such as Anita Desai, Eavan Boland, James Berry, Seamus Heaney, and Nadine Gordimer, it contains only three works written after 1980 among its approximately 100 selections. The pressure to include even more contemporary voices in American and British anthologies will likely continue in the future.

Thus far I have argued that two of the chief components of the commercial anthology, its organizational architecture and its literary selections, reveal tension in the way literature instruction is conceived. A third component of the anthology, its instructional apparatus, exhibits a similar tension. In an *English Journal* article, Jane Ann Zaharias suggests that this component should merit the most critical scrutiny, arguing that “The problem inherent in these [American] textbooks are not attributable to the sequencing and selection of the literary works they contain, but rather to the nature of the tasks that students are asked to perform in conjunction with their
reading” (22). Applebee offers a useful way of analyzing these tasks, dividing the instructional apparatus into the two broad categories of supporting material and study activities.

In the category of supporting materials, Applebee includes contextual information, such as introductory biographical, historical, or literary information; reading aides such as pre-reading activities, reading strategies, or vocabulary study; and other literary aides, such as help with literary terminology and writing activities. Applebee found that the majority of anthologies supply a wealth of supporting materials, offering biographical, historical, and literary context on all grade levels, with historical and literary information increasing with grade level. Anthologies also tried to anticipate reading difficulties, with 87 percent of all selections offering a focusing question prior to reading—though Applebee notes that the extent and effectiveness of such questions varied considerably—and 75 percent of selections drawing attention to challenging elements of the text. Difficult or important literary ideas, such as situational irony, were also addressed by pre-reading or post-reading activities offered in nearly all anthologies (“A Study” 37). According to Applebee, then, many anthologies performed adequately in the category of supporting materials. Appleby, Johnson, and Taylor echo this finding in their critique of the Prentice Hall Literature series (1989):

More interesting is the recognition that kids should be involved in literature before they read the story, not afterwards. Good pre-reading activities are given in the teacher’s edition; some are reproduced in the student text. Difficult vocabulary is presented with definitions before the selections to help students get through stories on their own . . . The teaching portfolio has reproducible companion selections with wide margins so the students can annotate texts as they read. This seems to be first time a publisher has admitted that active readers write in their books. (“A Hefty New Literature Series” 80)

While they did offer ample supporting materials, the anthologies in
Applebee’s study did not perform as well in the secondary category of study activities. A variety of activities are included in this category, ranging from direct requests for information to suggestions for library research. The study activities are particularly important for Applebee, reflecting “the implicit definition of what counts as ‘knowing’ literature.” His analysis divides study activities into two groups: “authentic” activities, or open-ended activities that allow for a range of individual responses, and “recitation” activities, which require a single predetermined answer. According to the study, the vast majority (65 percent) of all study activities in commercial anthologies emphasize the latter (“A Study” 41).

His findings may be reapplied to a more recent textbook, *Literature: The Reader’s Choice*, a world literature anthology published by Glencoe in 2002. In this case, the questions following Tolstoy’s short story “How Much Land Does a Man Need?” are representative of the textbook as a whole. As typical in most anthologies, the questions are divided into a hierarchy reflective of Bloom’s taxonomy, beginning with knowledge and comprehension, moving to application and critical analysis, and concluding with synthesis and evaluation. Fifteen questions follow the Tolstoy story, all grouped under the heading of “Analyzing Literature,” which is further divided into “Recall and Interpret” and “Evaluate and Connect” (948).

The first ten questions are grouped under the “Recall and Interpret” subheading. Of these, the first five coincide with the initial levels of Bloom’s taxonomy, knowledge and comprehension. Applebee would label these questions recitation activities, since each calls for a single predetermined answer. Question one asks, “What boast does Pakhom make at the beginning of the story?” (He boasts that if he had land, he would not fear the devil himself); four asks, “What dream does Pakhom have in the land of the Bashkirs?” (He dreams of the devil laughing at the
corpse of an ill-clad man); five asks, “What arrangement does the Bashkir chief agree to make with Pakhom?” (The Bashkir chief agrees to give Pakhom as much land as he can traverse in one day, as long as he returns to his starting place by nightfall).

Advancing upward in Bloom’s taxonomy to application and analysis, the next five questions require a greater degree of interpretation. Seven asks, “How does Pakhom’s purchase change his relations with other peasants?”; eight asks, “Is the information Pakhom is given about acquiring land misleading? “; ten asks, “Why does the arrangement the Bashkir chief makes with Pakhom lead to Pakhom’s death?” While these mid-level questions are not as focused on single answers—question eight might prompt at least two distinct responses—Applebee would still categorize them as recitation activities, arguing that:

Even when activities seem to require skills of analysis and interpretation, or to invite students to apply or relate what they have learned, the concomitant emphasis on an expected “right” answer may short circuit the value these activities might have. Rather than encouraging students to think carefully about the text, in most cases these activities simply test whether their reasoning is “correct.” (43)

In effect, Applebee contends that the expectation of correctness established by the recall questions prevents interpretative or analytical questions from eliciting more individual responses.

Applebee might raise similar objections to the last five questions following the story. Intended to encourage synthesis and evaluation, the last stages of Bloom’s taxonomy, the final five questions are grouped under the subheading “Evaluate and Connect.” Of these five, Applebee might suggest that three point to a single correct answer or a limited set of correct answers. Question twelve asks, “Describe an example of situational irony”; thirteen asks, “Which elements of this story do you think are fantastic and which ones are real?”; fourteen asks, “What kind of audience do you think Tolstoy was trying to reach with this story?” For Applebee, such
questions would again fall into the recitation category. Questions eleven and fifteen, in contrast, would likely be judged as authentic, since they allow for a wide range of individual responses. Eleven asks, “In your opinion, does Pakhom realize his mistake before he dies?”; fifteen points back to a previous pre-reading activity, asking, “In the Reading Focus . . . you were asked to describe a time when you wanted more of something than you really needed. Compare your thoughts on that occasion with Pakhom’s thoughts in the story” (948).

Of all of the questions, only question fifteen explicitly connects to a previous activity. Applebee concluded that 63 percent of all anthology study activities were similarly disconnected from the activities that preceded or followed them (“A Study” 47), though it could be argued that the questions here build on each other according to Bloom’s taxonomy. Furthermore, Applebee found that study activities rarely connected inter-textually to other literary works in the same volume, with only 6 percent of activities alluding or linking to other anthology selections. The overall effect of these recitation-based, discrete activities, Applebee argues, is to equate literary texts as a series of “unrelated puzzles” that can be solved through the mastery of individual details (“A Study” 53).

Others have made different but equally pointed criticisms about the instruction apparatus of commercial anthologies. Alan C. Purves likens the anthology questions to state assessment tests, arguing that both emphasize low-level comprehension (19). Robert Probst complains that anthologies have shaped the way literature is taught: secondary literature instruction, he suggests relies on “traditional conceptions of comprehension upon which many textbooks are based [that] too easily leave the work as a thing apart from the reader, an object outside of the reader to be worked upon”(60). Zaharias argues that commercial anthologies create “the erroneous impression
that literature should be read in much the same way and for the same purposes [as a]
science or history text” (23).

To be fair, the Glencoe anthology does offer a guide on active reading,
recommending strategies such as predicting, connecting, questioning, visualizing,
evaluating, reviewing, and responding. In addition, each selection is situated in
supporting material of the type that Applebee commends. But for some critics, the
existence of such material does not compensate for the emphasis on factual recall, and
this points to a third tension within the commercial anthology. Like the
organizational structure and literary selections, the instruction apparatus of the
anthology is pulled between two approaches to literature instruction. These
conflicting and sometimes overlapping approaches, one centered on the text, the other
emphasizing the reader, now merit further consideration.

To begin discussing these two approaches, it is helpful to sort the main
features of the commercial anthology into two separate classifications. In the
commercial literature anthology, the text-oriented approach manifests itself through
organization according to genre, an emphasis on the genres, authors, and literary
periods of traditional canon, and an instructional orientation that privileges close
textual analysis. The reader-oriented approach, in contrast, is marked by
organization according to theme or topic, an acceptance of non-traditional genres, an
inclusion of diverse and contemporary authors, and an instructional orientation that
privileges response-based activities. Underlying the different emphases of each
approach are two distinct critical perspectives, reader-response theory and New
Criticism, which together have shaped how literature instruction occurs in the
secondary classroom. The remainder of this chapter will examine these two critical
traditions, illustrating how they inform not only the commercial literature anthology
but also our concepts of literary reading.

The Reader-Oriented Approach: Reader-Response Theory

In their 1963 study of high school literature textbooks, Lynch and Evans examined seventy-two textbooks published between 1949 and 1961, grades nine through twelve. As we have seen, they argue that a textbook’s organization is nearly as important as the literary selections it included. They specifically advocate typological organization, or organization according to genre. Their recommendation was largely a reaction against topical organization, or arrangement according to theme. Surveying the field of anthologies, Lynch and Evans noticed what they regarded as a disturbing trend: the dominance of topological organization in ninth and tenth grade texts. For Lynch and Evans, the trend was emblematic of a larger movement in secondary literature instruction, the movement away from the literary text and toward the reader (153).

Topical organization reflects this movement in a number of ways, according to Lynch and Evans. First, topically organized anthologies often include non-literary texts meant to appeal to student interest. Anthologies reviewed by the study included units on family, dating, sports, and vocations, with many selections consequently drawn from non-literary fields like social studies and the natural sciences (154). Lynch and Evans label this approach to literature studies the “bibliotherapeutic view,” countering that literature instruction should not have adolescent socialization as its chief goal (156). Furthermore, Lynch and Evans contend that topical organization damages legitimate literature selections by unjustly forcing pieces into thematic units—here they cite an anthology that places Charles Dickens’ *A Christmas Carol* into a unit on “Home Life”—and by excluding many traditional works in favor of...
contemporary pieces that are easier to categorize (157). "Topical organization," they conclude, "because it tends to be incongruous, ineffectual . . . is inappropriate for an anthology of literature" (160).

With its campaign against topological organization and contemporary literature, Lynch and Evans’ study can be understood as part of a larger fight against the commercial literature anthologies they saw influencing literature instruction in the 1950s. The topical organization of these anthologies, in turn, may be attributed in part to the work of Louise Rosenblatt, and more specifically to her landmark text, *Literature as Exploration* (1938). This text laid the foundation for what emerged as reader-response theory.

Historically, reader-response theory can be understood as a product of the progressive movement in education. As Arthur Applebee explains in *Tradition and Reform in the Teaching of English: A History* (1974), one key expression of the progressive movement in the field of English was the desire for independence from college reading lists, which since the late nineteenth century had determined the literature curriculum and classroom texts of secondary English. Harvard and Yale, for example, published annual reading lists of literary works that applicants were expected to know to gain admission (49).

Not surprisingly, secondary schools based their curriculum on the reading lists published by colleges. But when these lists became too unwieldy and inconsistent, high schools began demanding uniformity. In response, the National Conference on the Uniform Entrance Exams approved a reading list for all secondary students, dividing the list into works for both wide and deep study. These new lists were largely effective in regulating the secondary English curriculum: by 1907, the same ten works, among them *Julius Caesar, Macbeth, and The Rhyme of the Ancient*
Mariner, were being taught in over 60 percent of secondary schools in the Midwest (Tradition and Reform 50). Savvy publishing companies began publishing carefully annotated classroom editions of works on the lists, further solidifying the literary canon. These early classroom editions, however, bore little resemblance to the anthologies Lynch and Evans criticized in 1963. Typically, each contained a single work, multiple works by a single author, multiple works in the same genre or literary period, or multiple works of a single nation or region. Schools purchased these texts and supplemented them with new editions when college reading lists changed (Tradition and Reform 128).

Classroom textbooks changed, however, with the dawning of progressive movement in education. Arising from the industrial growth, population explosion, and intellectual upheavals that marked the early twentieth century, the progressive movement shifted the major purpose of secondary education from a fitting school orientation, which readied students for college, to a common school orientation, which educated students to participate in a democracy. Its chief characteristics were a Deweyian concern for the psychology of the individual learner, an opposition to authoritarian pedagogy and curriculum, and an emphasis on education as a tool for social reform. The movement affected multiple educational disciplines, but had particular repercussions for English studies.

In the discipline of English, the main themes of the progressive movement were sounded by the Reorganization of English in Secondary Schools, a 1917 report published by the recently formed National Council for the Teachers of English. Along with asserting the independence of secondary curriculums from college reading lists, it argued that preparation for college was not the same as preparation for life. Accordingly, the report argued, the English curriculum should not only promote
cultural knowledge, it should foster vocational skills and train socially useful citizens. By extension, literature was no longer simply a means to advance students to college; it was a source for personal and social growth. Through its major publication, the English Journal, NCTE began advocating for the expansion of school libraries, publishing books lists for home reading, and supplying alternative reading lists that included popular contemporary literature, contending that dime novels, newspapers, and magazines could serve as bridges to classical literature (Tradition and Reform 58-65).

By the mid-1930s, a new sort of literature textbook had emerged from the progressive movement: the modern commercial literature anthology. Unlike their conservative predecessors, these new anthologies reflected the goals of the progressive movement by including a wide range of selections and genres in a single volume, providing a variety of contemporary literature, and most significantly, presenting literary pieces arranged according to theme, many arranged around the social or personal topics. The 1938 publication of Literature as Exploration reinforced the goals of the progressive movement and established the premises of reader-response theory (Tradition and Reform 128-130).

The main thrust of this landmark text is that literary texts cannot be understood in isolation from the reader. In making this central argument, Literature as Exploration specifically counters the New Critical approach that treats texts as self-contained, autonomous objects. Addressing I.A. Richards' objection to "mnemonic irrelevances," Rosenblatt writes: "The reader's fund of relevant memories make possible any reading at all. Without linkage with the past experiences and present interests of the reader, the work will not come alive for him, or, rather, he will not be prepared to bring it to life." Reader-response theory, then, begins by acknowledging
the role the reader plays in shaping the meaning of a literary text. "In a molding of any specific literary experience," Rosenblatt claims, "what the student brings to literature is as important as the literary text itself" (Literature as Exploration 77-78).

For Rosenblatt, "what the student brings to literature," includes both affective elements, such as personality traits, memories, emotional state, physical condition; and more cognitive elements, such as past reading experiences and knowledge of literary conventions. As the reader engages a literary text, she constructs meaning by contributing these personal elements to the text, creating a unique reading based on her individual associations and experiences. Reading is therefore an event, or in the language of Rosenblatt's later work, The Reader, the Text, the Poem (1978), a momentary transaction that cannot be duplicated, even when the same reader re-encounters the same text.

During this literary transaction, the reader and the text co-produce a "poem," a temporary meaning informed by both the reader and the conventions of the text; one that "cannot be equated solely with either [emphasis original] the text or the experience of a reader" (The Reader, the Text, the Poem 105). Far from justifying any interpretation of a given text, Rosenblatt's concept of the poem insists on textually informed reading:

There is, in fact, nothing in the recognition of the personal nature of literature that requires an acceptance of the notion that every evocation from a text is as good as every other . . . Undisciplined, irrelevant, or distorted emotional responses and the lack of relevant experience or knowledge will, of course, lead to inadequate interpretations of the text. The aim is to help the student move toward a more and more controlled, more and more valid or defensible response to the text. (Literature as Exploration 267)

For Rosenblatt, moving students away from the "inadequate interpretations" means helping them pay attention to their own meaning-making processes. Thinking
critically about meaning-making strategies leads readers to evaluate their validity, particularly in light of other readers’ responses and the conventions of the text itself. A student might ask, for example, what textual elements justified his own response, or how another reader arrived at a very different interpretation. In asking such questions, the reader is “reflecting on the world of the poem or play or novel as he conceived it and on his responses to that world,” thereby achieving “a certain self-awareness, a certain perspective on his own preoccupations, his own system of values” (The Reader, the Text, the Poem 146). This critical self-awareness influences the next literary transaction experienced by the reader, refining her literary sensibilities in the process.

Though Literature as Exploration was first published in 1938, reader-response theory remains influential in the academy and the secondary classroom. In the academy, it reached the height of its influence in the 1980s, when Stanley Fish popularized a form of reader-response theory that can be understood as an extension of Rosenblatt’s transactional theory. In his most representative work, Is There a Text in this Class? (1980), Fish argues that the meaning of a work is relative to the interpretative community to which a reader belongs. This interpretative community shares a set of external social and cultural norms which shape the perception of the reader. Hence “meanings are the property neither of fixed or stable texts nor of free and independent readers but of interpretive communities that are responsible both for the shape of a reader’s activities and for those texts those activities produce” (322). Fish illustrates his point with an example telling how his poetry students interpreted a set of names accidentally left on the blackboard as a religious poem.

Other strands of reader-response theory have also emerged in recent decades. Richard Beach categorizes these strands into five groups: textual, experiential,
psychological, social, and cultural (8). Each of these places emphasis on a different element of the literary transaction—text, reader, or context—but all focus on how readers make meaning from texts. Textual reader-response theorists, according to Beach, focus on how readers use their knowledge of textual conventions to respond to texts. Psychological theorists are more interested in the way the conscious and subconscious reading processes vary according to personality type and developmental stages. Social theorists emphasize the surrounding social context of reading transactions. In a similar way, cultural theorists focus on the cultural context of the reader, examining how her cultural attitudes, mores, and positions shape her reading. Lastly, experiential reader-response theory, as Beach suggests, centers on “the nature of readers’ engagement or experiences with texts—the ways in which, for example, readers identify with characters, visualize images, relate personal experiences to the text, or construct the world of the text” (8-9).

Reader-response theory is also influential at the secondary level. We have already seen how topical organization of secondary literature anthologies emerged in part due to the work of Louise Rosenblatt. But reader-response theory has also changed the secondary literature canon—what texts are included commercial literature anthologies. Lynch and Evans disapproved of what they perceived as an excess of contemporary literature in progressive literature anthologies. Rosenblatt, in contrast, argues for a literary canon more suitable to the interests and maturity level of adolescents, since such literature enables the reader to have a personal and engaging experience. As she observes, “It may be that the youngster reading National Velvet or Johnny Tremain will have a fuller, more sensitive, more responsible literary experience than the student who is so unready to handle the demands of The Divine Comedy or even Henry James” (Literature as Exploration 269). To this end, the early
progressives advocated including contemporary literature and genres in literature anthologies and classrooms, even recommending dime novels, newspapers, and magazines. These works, they argued, could serve as bridges to classic literature.

Contemporary proponents of adolescent literature have made similar arguments about its value. Studies like *Books and the Teenage Reader* by G. Robert Carlsen (1967) and *Voices of Readers: How We Come to Love Books* by Carlsen and Anne Sherrill (1988) demonstrate how adolescent literature meets the psychological and emotional needs of teenage readers. In *Books and the Teenage Reader*, Carlsen draws on developmental psychology to argue that adolescent literature helps teenagers progress through developmental tasks involving interpersonal relationships, defining the self, and finding a vocation. *Voices of Readers*, a compilation of over 1,000 reading autobiographies collected from high school and college students, reinforces the findings of the earlier study. Here, Carlsen and Sherrill suggest that many of the conditions that promote reading—among them recreational reading time, reader choice, social interaction between readers, availability of a variety of literature genres—are largely absent from the secondary English classroom. Adolescent literature, however, can meet these conditions, supplying the teenage reader with an engaging hook that encourages recreational reading, a choice of appealing subjects, a wide variety of genres, and the chance to talk about books with fellow adolescents.

Since 1967, when S.E. Hinton published *The Outsiders*—considered the pioneering work of young adult literature—an extensive body of adolescent fiction has been written. The 1970s, 80s, and 90s brought a wealth of books intended solely for the teenage market, ranging from problem novels (e.g. Judy Blume's *Are You There God, It’s Me, Margaret*) to formulaic romance and horror (the *Sweet Valley High* or *Fear Street* series) to more complex portrayals of the adolescent psyche.
(Walter Dean Myer's *Monster*). But contemporary adolescent literature has made few inroads into classroom literature anthologies. Economics may be the limiting factor, since publishing companies may not be prepared to pay royalties on contemporary literature. Additionally, the subject matter of adolescent literature is frequently controversial, addressing sexuality, substance abuse, or divorce (Christenbury 154), and publishing companies generally avoid such risks. Perhaps by consequence, most schools purchase adolescent novels separately in classroom or library sets. Most textbook publishing companies have separate young adult literature imprints for this purpose.

The continuing presence of young adult literature in the classroom—if not yet in the literature anthology—reflects the lasting influence of reader-response theory on secondary literature canon. Its influence is also evident in the instructional apparatus of contemporary anthologies. As Applebee found, the study activities included in commercial anthologies attempt to assist readers with reading aides such as pre-reading activities, reading strategies, and vocabulary study. The Glencoe textbook, *Literature: The Reader's Choice*, even provides an active reading model which, echoing Rosenblatt, recommends active reading: "Effective readers are active readers. As they read, the have conversations with themselves about the text; they get involved. Don't be a passive reader" (2).

For some, however, anthologies still fall far short of the goals of reader-response theory. In her critique of anthologies, Zaharias contends that textbooks privilege an "efferent" reading stance. In making this criticism, she invokes terminology coined by Rosenblatt, who differentiates between efferent and aesthetic reading. For Rosenblatt, efferent reading involves taking information away from a text, as in reading an article in an encyclopedia. A reader taking this stance “must
focus attention primarily on the impersonal, publicly verifiable aspects of what the words evoke and must subordinate or push into the fringes of consciousness the affective aspects.” Aesthetic reading, on the other hand, involves living through the experience of reading. Here, the reader “must broaden the scope of attention to include the personal, affective aura and associations surrounding the words evoked and must focus on . . . the moods, scenes, situations being created during the transaction” (Literature as Exploration xvii).

Rosenblatt argues that texts themselves are not specifically literary or non-literary; rather, the reader determines his own stance, varying between efferent and aesthetic positions during the transaction experience. Frequently, readers occupy the middle ground on the efferent-aesthetic spectrum, sometimes seeking information, sometimes experiencing the text more vicariously. For Zaharias, however, commercial anthologies compel readers to take efferent stances by including too many questions that require information gathering. As we have seen, Applebee draws a similar conclusion, contending that the vast majority of anthology study activities privilege recitation (“A Study” 53).

If as I have suggested, the commercial literature anthology represents secondary literature instruction, then we may conclude that the influence of reader-response theory is still formidable, despite criticism voiced by Applebee and others. Reconsidering the anthology’s key components—its organization, contents, and instructional apparatus—reveals the underlying influence of reader-response theory. In its attempt to organize material in a way that appeals to adolescents, in its ongoing effort to embrace contemporary and diverse voices, and in its endeavors, however problematic, to include reader-oriented activities, the contemporary anthology shows that secondary literature instruction values the contributions of reader-response
theory.

Reader-response theory is one of two critical traditions responsible for the shaping of secondary literature instruction. As Deborah Appleman suggests, “teachers often feel torn between either presenting literary texts as cultural artifacts—literary masterpieces who authoritative meaning is to be mastered by neophyte students—or relying heavily on students’ personal experience through a reader-response approach” (4). The second tradition that sees texts as “cultural artifacts” now merits examination.

The Text-Oriented Approach: New Criticism

In their 1963 study of anthologies, Lynch and Evans advocated typological organization as the best way to arrange a literature textbook. First, they reasoned that typological organization excluded the non-literary material of which they disapproved, if the types were restricted to prose fiction, the essay, the poem, and the drama. They also contended that genres worthy of study, like the drama, have long histories, making it possible to include representative works from a wide range of literary periods. Furthermore, Lynch and Evans claimed that typological organization fosters intensive study of individual authors, since “most literary figures likely to be studied in high school have written their best work in a single genre.” While Lynch and Evans acknowledged the problems created by typological organization, including misclassified works, fabricated non-literary genres, and an excess of “editorial machinery,” their recommendation for typological organization remained unequivocal (161).

In emphasizing the importance of genre, Lynch and Evans express one major concern of the dominant literary theory of their day, New Criticism. Applebee rightly
observes that Lynch and Evans share “the New Critics’ interest in literary studies focusing upon the unique characteristics of individual genres” (“A Study” 10). This point is underscored by Rene Welleck and Austin Warren in *Theory of Literature* (1942), an influential text in graduate, undergraduate, and even secondary literary study in the 1950s and 1960s. They assert:

> Theory of genres is a principle of order: it classifies literature and literary history not by time or place (period or national language) but by specifically literary types of organization or structure. Any critical and evaluative—as distinct from historical—study involves, in some form, the appeal to such structures. (226)

The concern for literary type is central to New Criticism, a text-oriented approach to literary criticism. As Applebee explains in *Tradition and Reform in the Teaching of English*, New Criticism made its way into the secondary classroom in part as a reaction against the “life adjustment” movement of the 1940s and 1950s. Life adjustment proponents sought to extend the progressive goals of personal growth and social consciousness by catering specifically to adolescent needs, an emphasis which in secondary English classrooms, stressed behavioral skills such as coping with family problems or dealing with puberty. By the 1960s, however, the life adjustment movement had been discredited and teachers trained in the rigors of New Critical analysis were entering the profession (147). The same decade saw a wave of commercial literature anthologies informed by New Critical theory, further cementing New Criticism’s place in the secondary classroom (170-174).

While they certainly differed on minor points, the New Critics shared a number of common critical assumptions, all of which began with the centrality of the literary text. New Critics held that a literary text is an independent and self-sufficient verbal object. As such, a literary text contains its meaning within itself, rather than in relation to its author, its historical or literary context, or its effect on the reader. This
central assumption determined the way New Critics read literary texts—specifically by close reading, or rigorous explication of the text and its interrelated components. In the New Critical view, these textual components were primarily verbal: words, figures of speech, and symbols interplay within the overall structure of a literary work to form an organic whole. Given their focus on language and form, the New Critics generally preferred poetry for close reading (Abrams 246-247).

As an interpretive method, close reading changes the role the reader plays in the meaning-making process. I.A. Richards' *Practical Criticism* (1929), one of the pioneering works of New Criticism, serves to illustrate this point. While a lecturer at Cambridge, Richards routinely distributed anonymous poems to his students, soliciting both their interpretative comments and the number of readings it took to arrive at their interpretation. Richards used these protocols to evidence of a host of reader difficulties, classified into ten separate categories: inability to making plain sense of a poem; insensitivity to the sounds and rhythm of language (a lack of what Richards called "sensuous apprehension"); misjudgment of imagery; distraction by mnemonic irrelevances; tendency toward stock responses; predisposition toward overly sentimental or inhibited responses; bias toward religious interpretation; and over-reliance on certain critical assumptions or maneuvers (14-17).

As these categories suggest, close reading involves a very specific method of reading. Readers are not to succumb to affective or the intentional fallacy, both terms defined by the influential formalist critics W.K. Wimsatt and Monroe C. Beardsley. The first of these errors involves evaluating a poem by its emotional effects on the reader; the second, judging a poem by the presumed intent of author. Since both methods incorporate factors external to the text, New Critics believed them irrelevant, and focused instead on reading a work for its structural and verbal characteristics.
Nor should readers fall prey to what Cleanth Brooks labels “the heresy of paraphrase;” that is, substituting their own ordinary language for the literary language of the poem or text. Instead, close reading requires careful scrutiny of the text, typically in search of irony, ambiguity, paradox, and similar effects achieved through verbal means (Abrams 247).

In addition to prescribing a rigorous method for literary reading, the New Critics tended privilege the traditional canon. If not an underlying premise of New Critical thought, the preference toward canonical texts was at least a byproduct of New Critical methodology. This point may be underscored by returning to Lynch and Evans, the textbook reviewers steeped in the New Critical tradition. Lynch and Evans protested how the anthologies of their day were including more and more contemporary literature, consequently displacing major works from “the great Anglo-American literary heritage” (411). One value of this heritage, they explain, lies in its potential to elucidate contemporary literature:

Since all art relies heavily upon convention, and convention is meaningless without its tradition, even contemporary literature will be more significant if the reader can come to it aware of the common tropes of language that influence authors of all ages, including the most recent. Bulwer-Lytton once wrote: ‘In science, read by preferences the newest works; in literature the oldest. The classics are always modern.’ (412)

Hence, the literary tradition enables New Critical methodology: it can teach the reader to appreciate the “common tropes of language,” or the formal poetic language to which New Critics paid a great deal of attention.

The argument advanced by Lynch and Evans echoes T.S. Eliot, who with Richards and William Empson, laid the foundations for New Criticism. Eliot’s “Tradition and the Individual Talent” articulates the significance of literary tradition to both the creative and the critical act. “No poet, no artist of any art,” he writes, “has
his complete meaning alone. His significance, his appreciation is the appreciation of his relation to the dead poets and artists. You cannot value him alone; you must set him, for contrast and comparison, among the dead” (155). As a critic, Eliot viewed modern works against the backdrop of literary history, judging the work by aesthetic standards that dated back to Homer and continued to the present. For Eliot, the function of both artist and critic was to uphold and extend these long-standing literary conventions, simultaneously affecting and being affected by the literature of the past.

Such conventions, as Paul Lauter contends, include “organic complexity in structure, ambiguity, and tension in language” (75). Literary texts that did not possess these qualities, he further argues, held little value in New Critical esteem and no place in the literary canon. According to Lauter, the New Critical preference for complexity of language and form shaped the modern American literary canon. The qualities that New Critics most admired, he maintains, characterizes only a select group of texts and genres. The metaphysical poets, for example, were favored by Eliot and other New Critics for their use of intricate forms, verbal play, paradoxes, and incongruous conceits. In his 1921 essay on the metaphysical poets, Eliot resurrected interest in Donne and other seventeenth-century poets, and their place has been fixed in the British canon ever since. Due to the influence of Eliot and others, the modern American literature canon celebrates similarly complex writers, but marginalizes writers—Lauter cites Gwendolyn Brooks, Toni Cade Bambara, and Alice Walker—whose work displays less complexity, denseness, and obscurity in language and form (77). For Lauter, this means that long-standing concepts of the literary canon and literary history must be re-examined in light of alternative traditions.

Given the New Critical emphasis on close reading and organic complexity, it is not surprising to find Lynch and Evans advocating more rigorous “editorial
apparatus," their term for the supporting material and study activities that accompany literature selections. Concerned that progressive anthologies catered too much to adolescent readers, Lynch and Evans also call for more exacting editorial apparatus. Evaluating the quantity, relevance, tone, helpfulness, and accuracy of such apparatus, they make a number of recommendations for future textbooks. Their suggestions resonate with the tenets of New Criticism. On relevance, for example, Lynch and Evans argue that questions accompanying literature selections "lead the student back to the texts rather than into vaguely defined areas of 'experience'" and "should place comprehension ahead of application" (184). The assumption here is a New Critical mainstay: meaning is contained within the literary text itself; comprehension involves rigorous explication of the literary text. At the same time, Lynch and Evans criticized study activities that seemed to subordinate texts to other concerns. Here, Lynch and Evans cite an anthology activity that asks students to hold a panel discussion on "how to be popular," making thematic connections to literary works in the process (186). Lynch and Evan's distaste for such activities again reflects their New Critical predisposition away from the personal response of the reader and toward the literary text itself.

Since the height of its influence in the 1960s, New Criticism has encountered opposition at all levels of literature study. In the academy, resistance to New Criticism began in the late 1960s, as Gerald Graff notes, "with suppressed undergraduate mutterings at forever having to hunt for 'hidden meanings' in literary works," and evolved into contemporary "deconstructive transgressions of those conventions of interpretive closure" (240). While New Criticism is considered passé in current literary studies, its influence is still felt in secondary schools. In a study examining literature instruction in high schools with reputations for excellence, Arthur Applebee
found that the theoretical goals of New Criticism have become tacitly acknowledged as conventional wisdom in American high schools, particularly in upper grade levels (Literature in the Secondary School 124).

This has led English teachers and teacher educators to take issue with New Critical methodology. Robert Probst, for example, suggests that the New Critical orientation creates a hierarchy of readers, with "the most renowned critic at the top, other published scholars a rung or two below ... other professors and teachers several steps further down the ladder, and finally, at the bottom, most deficient of all, the student ... (55). Ben Nelms describes his New Critical education in similar terms:

I learned to think of the literary text as an edifice. Almost as a temple. Complete, autonomous, organically whole, sacrosanct. We approached it with reverence. We might make temple rubbings and we were encourage to explain how it arches carried its weight and to speculate on the organic relationship between its form and function. But it was an edifice and we were spectators before its splendors. (1)

As a student, Nelms felt much like Probst describes—disenfranchised by the New Critical approach to literature instruction.

Jeff Wilhelm labels the New Critical approach the "bottom-up" theory of reading, and draws an analogy between New Criticism and phonics-based reading instruction. Wilhelm argues that in primary reading instruction, the bottom-up model holds that students must learn to read in a prescribed sequence, moving from letters, to letter clusters, to words, to phrases, and finally to sentences, eventually combining these elements into a larger patterns of meaning. Wilhelm contends that the parts-to-whole philosophy is paralleled in the secondary classroom by New Critical literary theory. New Critics call for careful explication, or close reading of a text, to reveal how its individual components relate with each other to form an organic whole. In Wilhelm's view, these components, such as irony, metaphor, or symbol, are analogous to the letters, phonemes, and words of phonics-based reading instruction.
For Applebee, the New Critical emphasis on close textual analysis ultimately emerges in the form of recitation-based anthology questions. His study of anthologies concludes:

Following a New Critical tradition, most anthologies base their major divisions or subdivisions on genre characteristics. Study activities emphasize text-based comprehension, beginning with simple recall and paraphrase and working from there toward analysis and interpretation. An overwhelming proportion of the study activities involve recitation. (53)

Even without accepting Applebee’s connection between New Criticism and recitation—one might ask if a New Critic would advocate paraphrasing—it is undeniable that New Criticism continues to shape secondary literature instruction. Again taking the commercial anthology as representative of such instruction, we see New Critical tendencies in typological organization, in the presence and prevalence of canonical figures such as Donne, and in instructional apparatus that focuses on careful explication of the components of literary texts.

Conclusion

This chapter has argued that two approaches to literary reading—a text-oriented approach and a reader-oriented approach—have shaped literature instruction at the secondary level. While their premises and practices differ, these models need not be in conflict with each other. Literature teachers rely on both models in their classroom. A study conducted by the Center for the Learning and Teaching of Literature verifies my point. Reviewing the results of study, which surveyed Catholic, public, and independent schools, Applebee found that most secondary literature teachers have consciously or unconsciously reconciled the two approaches toward
literature instruction:

Teachers report a dual emphasis: on techniques that are loosely related to reader-response theories and on those that are associated more directly with close analyses of text. Rather than standing in opposition to one another, these broad theoretical orientations to literary study are frequently treated in complementary fashion. Concern with reader-response seemed most typically used as a way into texts, while a focus on analysis of the text itself emerged as a later but ultimately more central feature of classroom study ("The Background for Reform" 8).

Seeing the two critical traditions as complimentary is also important for the remainder of this study. Web-based technology, the remaining chapters of this dissertation will argue, can support both text-oriented and reader-oriented models of literary reading.

It is also important that this discussion of literary reading has preceded my discussion of technology. As I will illustrate, the most effective use of technology arises from a thorough understanding of the subject to which it is applied.
CHAPTER II

BUILDING A BRIDGE: LINKING LITERARY READING TO THE NEW DIGITAL MEDIUM

Hypertext, which demands new forms of reading and writing, has the promise radically to reconceive our conceptions of text, author, intellectual property, and a host of other issues ranging from the nature of the self to education.

George Landow, "Twenty Minutes into the Future" (1996)

The ideological forces surrounding new technology produce a rhetoric of novelty, differentiation, and freedom that works to obscure the more profound structural kinships between the superficially heterogeneous media.

Espen Aarseth, Cybertext: Perspectives on Ergodic Literature (1997)

Introduction

This chapter addresses a key question raised by the recent emergence of digital technology: how does the new digital medium—and more specifically the World Wide Web—coincide with or complicate our understanding of literary reading? In answering this question, I first scrutinize hypertext, the electronic discourse at the center of current discussions about digital technology and literature. Hypertext theorists such as George Landow contend that it reconfigures literary reading, radically altering conventional understandings of text, reader, and author. This chapter examines hypertext and the claims that often accompany it, finally arguing that the World Wide Web—which can be considered the meta-hypertext—is more similar to than different from existing literary media. Moreover, the Web can be
aligned with the conventional understandings of literary reading already established. When conceptualized as an environment, the Web reinforces a reader-oriented approach to literary reading; when understood as an encyclopedia, the Web reinforces a text-oriented approach to literary reading.

Where is the Web? Digital Technology in the Literature Curriculum

This chapter begins with another scene from a secondary English classroom. On this particular day, students are turning in the research papers they have worked on for the past six weeks. As students turn in their essays, a glance reveals they have used word processing software to compose them—despite differences of font and margin size, there is a neat uniformity to their work. Ranging in subject from gun control to the Atkins diet, the essays were written at school, with word processing software installed on computers in the media center and laboratories. The students have used such software throughout their school careers: a 2003 study shows that word processing is the most common educational use of computers by students (Goldberg 3). Indeed, the word processor has become an entirely transparent tool, no more obtrusive than the pen or pencil (Moran 207).

The word processor is also a proven educational asset, well supported by research correlating computers to student writing performance. In 2003, The Journal of Technology, Learning, and Assessment published a meta-analysis of sixty-five studies conducted between 1992 and 2002, all focusing on the impact of word processors on student writing. Reviewing twenty-six quantitative studies, the meta-analysis found that across all grade levels, word processors improved both the quantity and quality of student writing. Additionally, the analysis of thirty-five qualitative studies showed that the writing in computer-based classrooms is more
collaborative, recursive, and social than in pen-and-paper environments (Goldberg 2). By virtue of being composed on a word processor, in other words, the research essay on gun control will likely be better than if written by hand.

In the past decade, the Internet has also entered the secondary composition curriculum, providing a powerful research tool and new opportunities for student publishing. Another look at the Atkins diet essay reveals a bibliography replete with Web sources, including medical databases, online health journals, the official Atkins diet Web site, personal Web sites published by dieters, threaded discussions, and even Web logs. The essay might also be enriched with multimedia from image archives or educational databases. In technologically progressive classrooms, a student may even turn her essay in electronically, via e-mail, electronic portfolio, or Web site. If so, the essay may include hyperlinks, linking the essay to external Web resources.

As in the case of the word processor, research has shown that the Internet affects writing and writing instruction. Most such research has sought to align the Web with the pedagogies and practices of composition classrooms. Specifically, studies have shown that the Web motivates students by providing a real audience for their writing (Leibowitz 1999); lessens their inhibition through non-threatening media like e-mail and online chats (Kuperlian 2000); allows them to revise peer writing through synchronous and asynchronous tools (Kuperlian 2001); encourages students to produce more text (Trupe 2002); and gives students the chance to experiment with new genres, such as the personal Web page or hypertext research essay (Nellen 2000). While some teachers remain skeptical, arguing that the Web fosters plagiarism, spawns corrupt syntax, contains unreliable and even dangerous information, and promotes superficial knowledge at the cost of deep learning, it is clear that World Wide Web is increasingly important to secondary writing instruction.
The impact of the Web on literature instruction, however, is more difficult to measure. On first glance, it may seem the Web has an established presence in the secondary literature curriculum. Revisiting our touchstone—the commercial literature anthology—illustrates this point. Most publishing companies now offer online versions of their literature and language arts textbooks. In fact, all seven of the leading publishing companies that Applebee studied in 1991 now have significant accompanying Web resources. At such sites, sometimes called online learning environments, subscribers can access a variety of resources. One example is Classzone, the McDougal, Littel companion site, which offers complete digital versions of all English language arts textbooks; student resources that include links to reference sites, profiles of authors, summaries of novels, and help strategies for standardized state tests; and teacher resources that include links to background information on literary figures, lesson plans, professional development articles, state standards and tests, and help on grant writing (http://www.classzone.com).

Prentice Hall’s companion site offers an online edition of *Timeless Voices, Timeless Themes: Bronze Level* that provides, among other features, pre-reading streaming video clips, pre- and post-reading logs that may be completed online, and interactive quizzes on vocabulary and other topics (http://www.phschool.com/atschool/literature/bronze). Pearson, the company that publishes the Prentice Hall imprint, reports that more than 40,000 schools in the U.S. use at least one of their online programs and that more than 14 million parents, students, and teachers connect to Pearson learning tools from home (“Pearson Annual Report”).

Such resources illustrate that the Web has potential to shape literature instruction and eventually become as important to literature study as the word processor is to composition. A closer inspection, though, reveals a fundamental
difference between the role digital technology plays in the composition instruction and the role it plays in literature instruction. Both the word processor and the Web have been shown to support the theoretical assumptions and current practices of writing instruction. The same, however, cannot be said for the Web and literature study. In fact the opposite is true: the discussion of the digital medium and literary reading has largely focused on the perceived differences between the two media. Since the advent of the Internet, both teacher-practitioners and critical theorists have emphasized the way electronic textuality differs from or even redefines conventional concepts of literary reading.

In *Illuminating Texts: How to Teach Students to Read the World*, for example, Jim Burke identifies the skills that “reading the Internet” requires. These include identifying various types of electronic discourses, among them the chat room, e-mail, listserv, MUD and MOO, newsgroup, threaded discussion group, and Web site; categorizing Web sites based on their form and function; and evaluating the credibility of Web sites by analyzing their sources, timeliness, authority, audience, and quality control (20-28). Burke links these skills to state benchmarks for reading achievement, claiming that “teaching our students to read the Internet critically helps them reach the standards set by state boards” (36).

While Burke does draw important connections between digital reading and conventional reading, he observes that the two processes are quite different: “People don’t read Web sites in the traditional sense, nor are Web sites written to be read; we scan them, bouncing across the bulleted lists and highlighted text to determine if we are the intended audience and this is the sought-after information” (24). For Burke, Internet reading hones skills that are applicable to non-digital material, but many of these skills involve analyzing the credibility of non-fiction sources, with the primary
goal of information gathering. Students, for example, might research the historical context of *The Grapes of Wrath* or *The Adventures of Huckleberry Finn*, learning to critique Web sites along the way. If used in this fashion, the Internet enriches reading by providing students with immediate and diverse contextual information. Doing online research will also foster a new set of reading strategies, as Burke and others have noted. But given its nature, reading on the Web seems to have little to do with the literary reading that typically occupies secondary literature instruction. Reading literature, we know, is not information gathering; students are not encouraged to “bounce across” the pages of *Brave New World* or *Heart of Darkness* to discover “the sought-after information.”

The same distinction between digital and literary reading has been made in critical theory. George Landow, the premier hypertext scholar, has emphasized how the new digital medium redefines conventional notions of literary reading. He writes:

> Electronic linking shifts the boundaries between one text and another as well as between the author and the reader and between the teacher and the student. It also has radical effects upon our experience of author, text, and work, redefining each. Its effects are so basic, so radical, that it reveals that many of our most cherished, most commonplace ideas and attitudes toward literature and literary production turn out to be the result of that particular form of information technology... (Hypertext 2.0 31)

In stressing the radical effects of the digital medium, Landow employs what Espen Aarseth labels the “rhetoric of differentiation,” or “the tendency to describe the new text media as radically different from the old, with attributes solely determined by the material technology of the medium...” (14). In effect, such language tends to divorce the digital medium from codex textuality and conventional concepts of literary reading. Still, Landow raises interesting questions that should be explored: Does the digital medium really change literary reading in radical ways? Or can the
digital medium—and more specifically the World Wide Web—be understood in more conventional terms? If so, what sort of literary reading skills might the Web foster? In short, how does the Web coincide with or complicate our understanding of literary reading?

Hypertext and Literary Reading: Revolution or Evolution?

To begin answering these questions, it is necessary to examine the digital discourse at the center of discussions about literature and technology: hypertext. Defined simply, hypertext is electronic text with hyperlinks, the “electronic linking” Landow mentions above. The term hypertext was coined in 1965 by Theodor Nelson, who defined it as “non-sequential writing—text that branches and allows choices to the reader, best read at an interactive screen” (Landow Hypertext 3). In defining hypertext, Nelson was expanding an idea originated by his mentor, Vannevar Bush. In a 1945 Atlantic Monthly article, Bush envisioned the original hypertext machine, a mechanical invention he called the “memex.”

Bush argued that hierarchical categorization systems were being overwhelmed by the vast store of modern knowledge, making them cumbersome and impeding information retrieval. He called for a new machine—the memex—that would store and retrieve data in a way that reflected the associative thought processes of the human mind. What Bush called the “essential feature of the memex,” was therefore its aptitude for “associative indexing . . . whereby any item may be caused at will to select immediately and automatically another” (108). With startling foresight, Bush speculated that readers might use the memex machine to forge unique associative connections, or pathways between different text and image sources.

Though associative indexing remained only theoretical during Bush’s lifetime,
the idea was later developed by Nelson, whose ambitious *Dream Machines* (1974) and *Literary Machines* (1981) imagined a networked system—the “docuverse”—that stored and categorized all public and private information. The final product, a software framework named Project Xanadu, never materialized, but Nelson’s work elaborated the idea of hypertext.

The technological catalyst for the actual realization of hypertext was the digitalization of texts, a fairly recent phenomenon, as David Levy explains. For 5000 years, Levy observes in *Scrolling Forward: Making Sense of Documents in the Digital Age* (2001), writing technologies have enabled writers to make physical marks on various surfaces. Levy traces the technological history of writing, highlighting its key moments: the development of fiber-based paper in China in the second century C.E., its introduction into Europe during the middle ages, the invention of the printing press in the late fifteenth century, and the growth of commercial paper mills in the nineteenth century (9-12). During the last forty or fifty years, however, new technologies have made physical markup unnecessary to the writing process. Instead of scratching words and sentences onto a physical surface like stone, vellum, or paper, writers now input information into a word processor, their thoughts and ideas translated into binary code and stored on the computer.

Levy labels this underlying code “digital representation,” contrasting it to the “perceptible forms” the computer interface allows writers to manipulate (147-148). As Steven Johnson notes, human interaction with a computer hinges on an act of translation between digital representation and perceptible form. The Web browser interface, for example, interprets markup language (e.g. HTML or JavaScript) and presents the user with a perceptible form, in this case a Web page (14).

By 1992, when George Landow published the first edition of *Hypertext: The
Convergence of Contemporary Critical Theory and Technology, digital representation of text had made the concept of non-linear hypertext a reality. The early 1990s saw the publishing company Eastgate Systems issuing the hypertext novels Victory Garden by Stuart Moulthrop and Afternoon by Michael Joyce. These hypertext works were distributed on CD ROM and packaged with software—Storyspace—that enabled them to be read. Other software applications, such as Apple's Hypercard, allowed users to create their own hypertexts. Most significant, however, was the development of the World Wide Web, which can be considered the meta-hypertext, the near realization of the memex that Bush originally envisioned. In the second edition of Hypertext (1997), Landow defines hypertext against the backdrop of the new information medium. Hypertext, for Landow, “denotes an information medium that links verbal and nonverbal information” (Hypertext 3).

As the breadth of his definition indicates, hypertext can take many different forms. Victory Garden and Afternoon are hypertexts, but so is the Encyclopedia Britannica Online, published on the Web (http://www.britannica.com). Online literary text archives like the William Blake Archive (http://www.blakearchive.org) or the Rossetti Archive (http://www.iath. virginia.edu/rossetti) also qualify as hypertext. These last two examples are particularly relevant to Landow, who is deeply interested in the implications that hypertext has for literature and literature study.

Landow suggests that hypertext has radical implications for the literary text, its author, and of special significance to this study, its reader. More specifically, Landow maintains that hypertext is more non-linear, dynamic, and indeterminate than its codex predecessors; hypertext complicates the role of the author by promoting the reader to co-author; and finally, hypertext embodies the post-structuralist concepts of the decentered and writerly text. As a result, Landow believes that hypertext “calls
into question our assumptions about the nature and institutions of literary education,”
making it critical to look carefully at the key components of hypertext (Hypertext
219).

For Landow, the most salient characteristic of hypertext is its non-linearity.
One example is the In Memoriam Web (http://www.eastgate.com/catalog/In
Memoriam.html), Landow’s online version of Tennyson’s poem. In Hypertext 2.0,
Landow posits that hypertextual non-linearity—also multi-linearity or multi-
sequentiality in his language—is particularly fitting for “anti-linear” works like In
Memoriam, which he describes as “fragments interlaced by dozens of images and
motifs and informed by an equal number of minor and major resolutions” (54). In
Memoriam Web, the hypertext version of Tennyson’s poem, allows readers to “join an
indefinite number of links to any passage (or block) of text [moving] through the
poem along many different axes” (55). Readers may proceed in a largely linear
manner, taking detours to linked reference materials such as critical articles, editorial
commentaries, and an electronic dictionary; or in a non-linear way, following the
leitmotifs of the poem or tracing the recurrences of a particular allusion. Both ways of
reading In Memoriam involve linking discrete units of texts—or lexias as Barthes
would call them—in three distinct ways: extratextual, as in linking to a modern
biography of Tennyson or history of Victorian England; inter-textual, as in linking to
another line or passage from In Memoriam; and intra-textual, as in linking to Idylls of
the King or another Tennyson poem.

By allowing readers to choose their own paths, Landow contends, hypertext
redefines some of the basic properties of codex texts. One such property is stability:
even without hyperlinks, electronic text is less fixed than codex text, since it allows
fluid revision and editing processes. With hyperlinks and resulting reader choice,
electronic text becomes more unstable still. Landow theorizes that during the act of reading, the reader fractures hypertext into separate lexias, breaking apart sequential passages into isolated units that gain greater individual autonomy at the cost of overall textual coherence (*Hypertext* 55).

A related casualty is the idea of the unitary text, or the definitive edition. Since hypertext allows readers to view multiple versions of single texts side-by-side, including variants such as facsimiles of original manuscripts, it may no longer be possible to have a scholarly edition of any codex work. Instead, scholars may rely on electronic text archives such as Jerome McGann’s *Rossetti Archive* or the *William Blake Archive*. But even these archives cannot guarantee the stability of electronic texts. As Jerome McGann observes in *Radiant Textuality: Literature after the World Wide Web* (2001), the act of translating traditional codex texts into the mark-up language recognized by computers invariably produces other versions, generating different interpretations of the texts, further destabilizing the concept of a fixed authoritative version (77).

Hypertext also weakens the structural characteristics of conventional codex texts, particularly those related to closure. A traditional text has a determined beginning and ending, indicated by conventional markers such as the title page, chapter headings, and sequential pagination. Hypertext, in contrast, is a network of inter-textually linked lexias, each of which may serve as the beginning or ending of a particular reading. It therefore cannot be regarded as complete, at least not in the same sense that a book is considered complete. As Landow suggests, hypertext is “open-ended, expandable, and incomplete . . . If one put a work conventionally considered complete, such as *Ulysses*, into a hypertext format, it would immediately become ‘incomplete.’” In the same sense, hypertexts cannot be viewed as discrete,
self-contained objects, since they contain extratextual and intra-textual links that make their own borders permeable (*Hypertext* 79).

Additionally, hypertext has important implications for the author. Landow believes that hypertext transfers power from the original author to the reader in new and distinct ways. First, the hypertext author is diminished by his participation in a large metatextual network such as the World Wide Web. In this electronic environment, his work and his identity become decentered nodes in the information network, randomly accessed bits that are nearly devoid of conventional means of authorial distinction and prestige. A database search, for example, allows querying readers to enter a given text at any point, with little regard to the intent or even identity of the original author (*Hypertext* 94). At the same time, however, hypertext creates new possibilities for collaborative authorship. Landow notes that the concepts of individual authorship and authorial property are rooted to book technology and a publishing industry that rewards single authorial efforts. Hypertext, in contrast, moves away from “page-bound technology,” to allow new forms of collaboration, by allowing writers to link their work to that of others, forming larger collaborative metatexts (*Hypertext* 110).

Hypertext also changes the role of the literary reader. By choosing their own pathways through texts, the hypertext reader gains greater control over the meaning of the text, in effect becoming its co-author. Landow discusses this change by aligning hypertext with post-structuralist theory. He suggests that hypertext embodies Derrida’s concept of the decentered text. In following the hyperlinks of a hypertext work, the reader removes the hyperlinked signifier from its original context, resituates it in a new context, and explores its derivations and opposites, in theory pursuing his or her own interests along associative paths until the original text has become
decentered. "As readers move through a web or network of texts," Landow explains, "they continually shift the center—and hence the focus or organizing principle—of their investigation and experience. Hypertext, in other words, provides an infinitely recenterable system . . . whose provisional point of focus depends upon the reader" (Hypertext 36). By following her own choice of reading pathways, the reader recenters the text on herself.

In addition, hypertexts that allow readers to annotate the original text embody Barthes' idea of the writerly text, in which the reader co-creates meaning with the original author. For Landow, this is particularly true of Web hypertexts, which can be hyperlinked with other pages. Describing his own students’ work on the Web version of Hypertext 2.0, Landow suggests that hypertext readers become "wreaders," or "active, even aggressive readers who can and do add links, comments, and their own sub-webs to the larger web" ("So What’s Happened Since 1992?” par. 4). In this context, the reader becomes a co-author by making connections between their own work and that of the writer.

As Landow admits, not all hypertexts empower the reader in these ways. A hypertext narrative may confuse the reader with a disorienting and debilitating sequence of textual pathways, causing some readers to leave the text without a satisfying sense of closure. Moreover, the potential pathways are created by the author, not the reader. Still, Landow maintains that the hypertext reader has the freedom to form her own sense of textual coherence by entering text where she chooses, imposing her own causal organization on its lexias, and leaving the text where she chooses. In many cases, the hypertext reader moves from a sense of fragmentation to wholeness, a process akin to but different than traditional reading: "This construction of an evanescent entity or wholeness always occurs in reading."
claims Landow, "but in reading hypertext it takes additional form of constructing, however provisionally, one's own text out of fragments, out of separate lexias . . ." (Hypertext 195). In the final analysis, then, hypertext changes how literary reading occurs, according to Landow, by giving the reader greater control over the meaning-making process.

For some, the potential impact of hypertext on traditional reading is harmful. In their view, hypertext undermines traditional codex works: literary texts are no longer sequential narratives, but networks of interconnected lexias; no longer stable but dynamic; no longer finite but forever indeterminate; no longer read but co-authored. Sven Birkerts, for example, warns in The Gutenberg Elegies: The Fate of Reading in an Electronic Age (1994):

Once a reader is enabled to collaborate, participate, or in any way engage the text as an empowered player who has some say in the outcome of the game, the core assumptions of reading are called into question. The imagination is liberated from the constraints of being guided at every step by the author. Necessity is dethroned and arbitrariness is installed in its place. (163)

Like Landow, Birkerts believes that one such "core assumption" challenged by hypertext is the authority of the writer. "This domination by the author," he protests, "has been, at least until now, the point of reading and writing. The author masters the resources of language to create a vision that will engage and in some ways overpower the reader; the reader goes to the work to be subjected to the created will of another" (163). For Birkerts, the hypertextual shift toward reader empowerment has profound cultural and metaphysical ramifications. He contends that language gives humanity the capacity for existential speculation, the propensity "to confer meaning on our experience and to search for clues about our purpose from the world around us" (31). Literature, for Birkerts, can be understood as a repository of such metaphysical imaginings, which we can gain from and participate in as readers. But reading
requires a willing acquiescence to the sensibilities of a particular mind. When this act of submission occurs, readers “slip out of customary time orientation marked by distractedness and surficiality, into the realm of duration,” a meditative state where existential speculation is possible, where we can “question our origins and destinations, and . . . conceive of ourselves as souls” (32). Hypertextual reading, for Birkerts, prevents such speculation from occurring. By setting readers on equal footing with writers, hypertext makes the act of submission unnecessary, thereby derailing the duration experience. Consequently, the human capacity for reflection suffers, resulting in a host of cultural and metaphysical losses, including a disjointed sense of time, decreased attention span, broken faith in cultural institutions and the narratives that assign meaning to experience, estrangement from the past, isolation from surrounding communities, and lack of vision for the future of humanity (27).

Attributing such large-scale outcomes to the digitalization of texts may seem reactionary, particularly in the case of the hypertext literature like Victory Garden, which never gained the public readership necessary to effect the sweeping changes Birkerts feared. In 1994, Birkerts lamented the eventual obsolescence of the traditional book. Now, a decade later, it seems more realistic to suggest that electronic and codex texts differ in degree and not in kind. Such is the main thrust of Espen Aarseth’s Cybertext: Perspectives on Ergodic Literature (1997).

Aarseth asserts his two central arguments against hypertext: first, that its advocates have misrepresented the new digital media with the “rhetoric of novelty, differentiation, and freedom,” describing it as radically different from the traditional print medium; second, that the same enthusiasts have paradoxically relied on existing literary theory to discuss hypertext, liberally applying contemporary critical discourse to the new digital media. “In the context of literature,” Aarseth contends, the rhetoric
of technologists "has led to claims that digital technology enables readers to become authors, or at least blurs the (supposedly political) distinction between the two, and that the reader is allowed to create his or her own 'story' by 'interacting' with 'the computer' (14). Both arguments respond directly to Landow and other hypertext theorists.

First, Aarseth takes issue with the language employed in hypertext theory. One oft-employed term that Aarseth disputes is non-linearity. Reviewing the language used by Nelson (non-linear, non-sequential), Landow (multi-linear, multi-sequential) and others to describe hypertext, Aarseth suggests that neither hypertext nor the traditional codex form can be described as inherently linear or non-linear, since linearity is a temporal phenomenon experienced by the reader, as opposed to an intrinsic quality of a written document. Some codex forms, such as the encyclopedia, lend themselves well to non-linear reading, and by consequence may be well suited to the digital medium (46). On the other hand, hypertext may also foster very linear readings, particularly when a reader is forced to follow pathways predetermined by the author. Early hypertexts like Michael Joyce's Afternoon, for example, do not allow the reader to browse among all of its lexias, effectively reducing reader freedom to a set of limited actions (77). Furthermore, all codex works, even novels like War and Peace, permit non-sequential reading experiences, since the reader may skip around as she pleases. Even largely sequential reading involves minor non-sequential acts: in Barthes' terminology, readers engage in tmsesis by skimming over non-essential passages. "To construct a fundamental dichotomy between linear and non-linear types of media is therefore dangerous;" Aarseth cautions, "it produces blind spots even as it creates new insights" (47).

Another critic, Michael Allen, makes a similar point in an online article for
Allen specifically disputes the alleged indeterminacy of digital text. He argues that hypertext, like all codex works, is bound by print, the “neatly arranged words arranged into neat lexias” (par. 8). Though hypertext makes use of a new print technology, it nonetheless relies on a closed system—the printed word—to communicate its meaning. And while hypertext does attempt to resist closure by linking to other lexias, Allen contends that literary works have long attempted to undermine the permanence of their own print, chiefly by drawing attention to the artificiality of their own construction.

Aarseth also draws attention to the structure of hypertext narratives, disputing claims that the digital medium undermines traditional narrative patterns in radically new ways. While hypertext fictions like *Afternoon* have been labeled postmodernist, Aarseth contends that they typically address narrative problems more in keeping with modernist poetics. *Afternoon* does seem postmodern: it is characterized by the literary high jinxes that typify postmodern texts, such as authorial intrusions, genre-blending, and metafictional self-awareness. Its narrative structure, however, features chronological jumps, textual fragments, multiple perspectives, unclear causality, and other devices originated and mastered by modernist writers. Moreover, the experience of reading hypertext fiction, what Aarseth labels the progression from “aporia” to “epiphany,” parallels the experience of reading modernist fiction (86-87). Like the reader of *The Sound and the Fury*, the hypertext reader likely attempts to create textual coherence from the fragments.

Allen makes a similar argument, analyzing the novel *Tristam Shandy* by Laurence Sterne. Sterne, Allen suggests, achieved the narrative innovation often attributed to hypertext, by resisting the conventional unities of time, location, and action. Moreover, Allen demonstrates that Sterne’s use of the dash prefigures the
hypertext link, representing the “associations as well as the actual moments of associative linking” (pars 19-21). For both Aarseth and Allen, then, the codex medium is capable of achieving the hypertextual effects of non-linearity and indeterminacy.

Another key point of hypertext theory is that readers become co-writers. Again, both Aarseth and Allen challenge this idea. “Hypertext is certainly a new way of writing,” Aarseth admits, “but is it truly a new way of reading? And is all that jumping around the same as creating a new text?” (78). To answer these questions, Aarseth examines the ways in which different hypertext platforms force readers to operate. One representative example is Stuart Moulthrop’s Hegirascope, published on the World Wide Web in 1995 (http://iat.ubalt.edu/moulthrop/hypertexts). Hegirascope displays its individual lexias on the screen for fifteen to twenty seconds each. Within each lexia are links to others that the reader may follow, but he must choose his path quickly, before the existing lexia is replaced by a new lexia. This stressful process can hardly empower the reader, let alone turn him into a co-author: “Hegirascope does not allow for contemplative reading,” Aarseth echoes Birkerts, “which is perhaps the most important feature of the [novel]” (80). Hypertext fiction, at least in the case of Hegirascope, disenfranchises the reader.

Allen again echoes Aarseth, questioning the notion that hypertext produces reader-writers, or “wreaders” in Landow’s language. This view of the reader, he writes, “has made the author only a little more authoritative a source on texts than a stocker of the shelves in a library.” Allen suggests that effective readers have always co-produced meaning, finding their own semantic paths through codex works long before the advent of hypertext. Furthermore, like Aarseth, Allen finds that hypertext links actually impede this meaning-making process. Such readers, he argues, “find
hypertextual links too restrictive because they limit the range of lexia that one might read into and out of a given text” (par. 15). Again, it is a matter of choice: traditional readers feel disenfranchised by having to follow one or two reading pathways pre-selected by the hypertext author.

Aarseth contends that claims about hypertextual co-authorship arise from a fundamental error: the misapplication of literary theory to the digital medium. He holds Landow and others responsible for perpetuating this error. The Storyspace programmer and hypertext author Jay David Bolter, for example, writes in a 1992 essay:

In a curious way, hypertext is a vindication of post-modern literary theory. For the past two decades, postmodern theorists from reader-response critics to deconstructions have been talking about text in terms that are strikingly appropriate to hypertext . . . When Wolfgang Iser and Stanley Fish argue that the reader constitutes the text in the act of reading, they are describing hypertext. When the deconstructionists emphasize that a text is unlimited, that it expands to include its own interpretations—they are describing a hypertext . . . It is uncanny how well postmodern pronouncements seem to fit the computer. (24)

Bolter’s misstep, according to Aarseth, is to assume that one material medium—hypertext—simultaneously realizes the theoretical demands of two radically different approaches to textuality: the phenomenological (reader response) and the semiological (post structuralism). The concept of hypertextual co-authorship misappropriates the idea of the active reader from reader response theory, commingling it with the poststructuralist concept of the decentered or writerly text. The resulting theoretical blend confuses what Aarseth identifies as the “physical reality [text]” and the “construction [of the text] in the observer’s mind” (83). Allen also mistrusts Landow’s appropriation of post-structuralist theory, suggesting that the decentered text has already been realized by codex works (par 13).

In re-examining the major assertions of the hypertext theory, Aarseth and
Allen temper Landow’s optimistic vision of hypertext as a radical new form that liberates the text from traditional notions of linearity, determinacy, stability, authorship, and readership. “The paper-electronic dichotomy is not supported by our findings,” writes Aarseth. “The new media do not appear in opposition to the old but as emulators of features and functions that already exist. It is the development and evolution of codex and print forms, not their lack of flexibility, that makes digital texts possible” (75). Both Allen and Aarseth insist on continuity between digital texts and traditional texts, which should reassure those, like Birkerts, who fear the loss of contemplative reading and metaphysical speculation.

In rejecting the “paper-electronic dichotomy,” Aarseth makes a critical point: our thinking about hypertext—and the new digital medium as a whole—should focus on the similarities, not the differences, between digital and codex texts. At the same time, however, Landow proposes that the new digital medium has exciting and important consequences for literature study. As secondary literature teachers strive to integrate the Web into their instruction, they should keep both Landow and Aarseth in mind. Using the Web to teach literature involves exploring its unique properties while remaining rooted in what we already know about literary reading. Those unique qualities of the Web—which is at once both an environment and an encyclopedia—support both reader-oriented and text-oriented approaches to literary reading.

The Electronic Environment: Reader-Oriented Reading and the Web

Conceptualizing the Web as an electronic environment allows us to see connections between the new digital medium and a reader-oriented approach to literary reading. Making this connection involves reconsidering the qualities of the World Wide Web in somewhat broader terms. In Hamlet on the Holodeck: The
Future of Narrative in Cyberspace (1997), Janet Murray contends that the new medium has two key qualities: participation and immersion. The first key characteristic of the digital medium is participation. A participatory medium is one in which the audience may input information that shapes the way the medium looks, sounds, and functions. The medium itself then becomes what Murray calls a "codified rendering of responsive behaviors" (74). A somewhat primitive version of a participatory medium is the video game, in which players have a set number of tasks and options. Early text-based games like Infocom's Zork, for example, restricted player moves to a series of verb-object statements, as in "go down," or "open trapdoor" (80). Though video games like Electronic Art's The Sims and Sony's Everquest are certainly expanding the rules of the game, players are still limited to functioning within certain predetermined parameters. Murray reports the frustration of a Nintendo player who was forced to fight opponents when he wanted to explore the rich landscape of the gaming world (129). The World Wide Web, on the other hand, is a far less restricting technology that allows participants to determine their own rules by following hyperlinks to various destinations, interacting with other users through synchronous and asynchronous conferences, and enlarging the medium itself through the publication of Web sites, blogs, zines, and other forms of electronic discourse.

Murray likens immersion, the second characteristic, to "digital swimming," or the sensation of being psychologically submerged in the digital environment (99). Anyone who has spent hours on end surfing the World Wide Web has experienced the immersive quality of the digital medium. When such immersion occurs, Murray contends, the computer acts not only as a tool, responding to the whims and wishes of the user, but also as a world of its own. Since the advent of the Internet, this world
has grown both expansive and encyclopedic, and therefore more engrossing. “With encyclopedic detail and navigable spaces,” Murray writes, “the computer can provide specific location for places we long to visit. A few clicks on the World Wide Web and we are instantly in one of the feudal fiefdoms […] or in the sick bay of the starship voyager” (98). The metaphors used to conceptualize the virtual world encourage us to think of cyberspace as a physical location: we connect or hook up to the Web, surf or navigate its geography, and arrive at locations or sites, some of which engulf us with infusions of video and audio. These experiences in the cyberworld can be so immersive, Murray maintains, that we deliberately conceive of them as “visits” in order to distinguish between the virtual and real world: “The visit metaphor is particularly appropriate for establishing a border between the virtual world and ordinary life because a visit involves explicit limits on both time and space” (106). We return from these visits refreshed or informed by what we have seen.

Taken together, the participatory and immersive qualities constitute an electronic environment, a sort of virtual world which we can enter and leave. For literature instructors, the question becomes how to employ this virtual world to teach literary reading. One way is by capitalizing on the participatory quality of the World Wide Web. As we have seen, reader-response theory stresses the active role the reader plays in the interpretive act—how his participation in the literary transaction shapes its meaning. As Landow has suggested, hypertext allows readers to participate in the meaning-making process in new and significant ways. Moving the discussion beyond hypertext to video games, MOOs, and the Web at large, Murray suggests that the digital medium is particularly suited to encourage the active creation of meaning:

As the literary theorists known as the ‘reader response’ school have long argued, the act of reading is far from passive: we construct
alternate narratives as we go along, we cast actors or people into the roles of characters, we perform the voices of the characters in our heads, we adjust the emphasis of the story to suit our interests, and we assemble the story into the cognitive schemata that make up our own systems of knowledge and belief. In digital environments, we have new opportunities to practice this active creation of belief. (110-111)

Murray compares reading a literary text to participating in a digital environment, an important analogy that raises further questions. If both literature and digital environments can promote the active creation of meaning, then how might the digital medium—and specifically the Web—be used to reinforce effective reading strategies?

Is it possible, for instance, to use the Web to encourage readers to reflect critically on their own reading stances? Understanding such stances, according to Judith Langer, is an important element of effective reading. Langer identifies the four key stances of literary reading as “being out and stepping into an envisionment,” in which the reader makes initial contact with the text, calling on previous experiences to begin constructing meaning; “being in and moving through an envisionment,” in which the reader becomes immersed and continues the meaning-making process; “stepping back and rethinking what one knows,” in which a reader reconsiders her own previous knowledge based on the new information she has gathered; and lastly “stepping out and objectifying the experience,” in which the reader detaches herself from the text to make more critical evaluations (40).

Langer echoes Rosenblatt, who insists that a literary transaction is temporary and never-to-be duplicated. For Langer, envisionment plays an important part in the literary transaction. A broadly conceived idea, envisionment for Langer describes how the reader understands a text at a fixed point in time. A reader experiences multiple envisionments as he reads a text, since “some information is no longer seen as important, some is added to the reader’s consciousness, and some earlier interpretations are changed.” At the end of a reading, a reader has a final
envisionment based on the whole of his reading experience, including material he may not have completely understood. This final envisionment is temporary: the reader will bring new information to the text when he next reads it (39).

Jeffrey Wilhelm offers a reading model similar to Langer’s. In Wilhelm’s model, the proficient reader engages the text on three distinct but overlapping dimensions. The first of these, the “evocative dimension,” denotes the level where readers show interest in the plot, identify with characters, and perhaps most significantly, envision the setting of the story world. On the second and third levels, the “connective” and “reflective” dimensions in Wilhelm’s language, good readers engage in more analytical activities, like filling in extra-textual information and recognizing literary conventions (46). Though sophisticated readers are able to operate on all three levels simultaneously, Wilhelm found that less proficient readers “did not respond in connective or reflective ways to their reading unless they first overtly responded on all of the evocative dimensions” (88). As Wilhelm suggests, entering the story world is a crucial step that precedes more analytical reading.

Wilhelm’s model can be directly tied to the immersive quality of the Web. Put simply, the Web can open portals to the story world and engage the meaning-making process. “The age-old desire to live out a fantasy aroused by a fictional world,” writes Murray, “has been intensified by a participatory, immersive medium that promises to satisfy it more completely than has ever before been possible” (98). The Web, an immersive world in and of itself, also hosts innumerable smaller worlds, ranging from online video games like Everquest or The Sims to chat rooms to fanzine sites.

In Chapter Three, I explain how I designed and used one such microworld, the Brave New World literary MOO in my high school British literature classroom. The Brave New World MOO allowed my students to enter the text as characters, move
through the landscape of the novel, make connections to their own lives and previous reading experiences, and step back to critique the text objectively. Seeing the Web as an environment, an immersive virtual world which one can enter and participate in, aligns the medium with a reader-oriented approach to literature instruction.

The Electronic Encyclopedia: Text-Oriented Reading and the Web

The Web may also serve a text-oriented approach to literature instruction, if it is conceptualized as an electronic encyclopedia. Text-oriented literary reading values both the traditional literary canon and close textual analysis. When understood as an encyclopedia, the Web supports this approach by offering a wealth of canonical texts and the tools for close critical analysis. First, canonical texts are increasingly available in digital form. In one sense, the Web is the new library, a vast and ever-expanding storehouse of texts. As David Levy observes in *Scrolling Forward*, digitalization has permeated the modern institutional library: today it is the rule, not the exception, for a library to employ digital technology to catalogue their own holdings and to expand their resources beyond their walls to the vast resources of Web. And as texts become increasingly available in electronic form, the Web may even threaten the existence of institutional libraries, possibly, according to Levy, returning the concept of the library to its nineteenth-century sense of a private collection (132-135).

Whether the meta-library of the World Wide Web will eventually take form in the orderly “docuverse” envisioned by Theodor Nelson or the more overwhelming “Library of Babel” described by Jorge Luis Borges, it already plays a large role in preserving canonical texts. Hundreds of text archives currently exist, ranging from single author archives such as the *William Blake Archive*, the *Rossetti Archive*, and
the *Dickinson Electronic Archive*, to broader collections of e-texts such as the *Internet Public Library*, *Project Gutenberg*, *The Internet Classics Archive*, *Perseus Digital Library*, and the *Oxford Text Archive*. Archives may also focus on a particular period, as in *Early English Books Online*, a particular genre like *British Poetry 1780-1910: A Hypertext Archive of Scholarly Editions* or a particular body of work, such as the *Perspectives in American Literature* project. While each archive has its own emphases, most include both primary and secondary sources; others include hypermedia such as images, video clips and audio clips; still others offer bibliographies of additional resources, both on and off the Web. Archives also vary in purpose. Some are designed as tools for serious scholarship, while most intend to provide readers with free e-texts.

Due to copyright law, text archives may only store works classified as public domain. In the United States, copyright law prohibits any work under its protection from being copied, distributed, or performed without the consent of its author for a given number of years. Works published prior to 1923 are considered public domain; those published between 1923 and 1978 retain copyright for 95 years; and those published after 1978 retain copyright until 70 years following the death of the author ("Project Gutenberg: Copyright Howto" pars 5-10). In practical terms, this means that the older texts of the traditional literary canon are far more likely to be available in electronic form than newer works.

To illustrate this point, we may turn to *The Dictionary of Cultural Literacy* by E.D. Hirsch. Hirsch purports to define “what every American needs to know” across all disciplines, including English language arts. And though Hirsch values the western literary tradition for different reasons than the New Critics—he sees knowledge about

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1 URLs for these archives are included in the bibliography.
literature as a component of our national cultural literacy—the dictionary generally
reinforces the traditional literary canon. Hirsch supplies a glossary of literary terms,
authors, titles, characters, and allusions that he believes every American must know.
A brief look at the opening page of the literature glossary illustrates how electronic
archives favor the older texts of the literary canon.

On the first page of the literature glossary, Hirsch recommends that every
American be familiar with "Age cannot wither her, nor custom stale/ Her infinite
variety," two lines from *Antony and Cleopatra* by Shakespeare. This play, as well as
the complete Shakespeare canon, is available at multiple electronic archives,
including MIT’s Complete Shakespeare and Bartleby.com. Captain Ahab of *Moby
Dick* is the next important idea: the full novel is available at Project Gutenberg. The
list continues with “Alas poor Yorick!” (*MIT’S Complete Shakespeare*); Louisa May
Alcott (*Project Gutenberg* has 20 of her works including *Little Women*); Horatio
Alger (*Project Gutenberg*); *Alice in Wonderland* (*Project Gutenberg*); a phrase from
*Animal Farm* (*Project Gutenberg of Australia* archives this text, which is public
domain down under); “All the World’s a Stage,” from *As You Like It* (*MIT’s
Complete Shakespeare*); Maya Angelou (*I Know Why the Caged Bird Sings* is not
available at legitimate text archives, but many of her poems are included at sites like
www.poets.org); King Arthur (*Le Morte d’Arthur* and *Idylls of the King*, the two
works Hirsch mentions, are both available at Project Gutenberg); Jane Austen
(*Project Gutenberg*); *Babbitt* by Sinclair Lewis (*Project Gutenberg*); Francis Bacon
(*Project Gutenberg offers a collection of essays*); James Baldwin (*Project Gutenberg*
has an small sampling of essays but no novels); *Beowulf* (*Project Gutenberg and
several other sites, including a hypertext version at the McMaster University*); “Big
Brother is watching you," from *1984* (*Project Gutenberg Australia*); and lastly, *Black
Boy by Richard Wright (not available).

In the above example, the only unavailable electronic texts are those written by Angelou, Baldwin, and Wright. Widely regarded as important figures in American literature, they are excluded from the digital canon—those texts freely available to the public in electronic archives—because their works are still protected under copyright law. In American as well as British literature, many significant contributions made by non-white and women writers have occurred in the twentieth century. While the Web offers many scholarly sites about these writers—Angelou, Baldwin, Wright, Ralph Ellison, Alice Walker, and Toni Morrison to name a few—their actual work will remain underrepresented in the digital canon until copyright law changes, or until it is made available through other means.

One interesting possibility lies in subscription databases such as those developed by the University of Chicago. Two examples are the Black Drama database and the North American Women’s Letters and Diaries database, both produced in collaboration with the University of Chicago. The Black Drama database, currently unfinished, will archive over 1,200 plays written by dramatists from North America, the Caribbean, Africa and African Diaspora countries, from the mid-nineteenth century to today (Black Drama: 1850 to Present). Even larger in scope, the North American Women’s Letters and Diaries database extends from colonial times to 1950, and when complete, will contain over 150,000 pages of published diaries and letters (North American Women’s Letters and Diaries). Both databases will allow the user to search by multiple variables, including keyword, historical event, and geographical region.

More contemporary electronic texts are also available through commercial services like ebooks.com. Here, readers can download individual titles for
competitive prices, but the selection is limited. Other commercial sites, such as Net Library, offer e-books on a subscription basis. Net Library supplies universities, schools, businesses, and the public with a good selection of e-texts, but the cost may be prohibitive, since subscriptions begin at $399.00 per year (http://www.netlibrary.com). Another possibility may be textbook companies, which as we have seen, are developing sites that feature electronic texts. Even if these services do publish contemporary and diverse writers in digital form, however, they are still available only through subscription, in contrast to the readily available canonical texts—novels by Dickens, plays by Shakespeare, poetry by Donne—that are free in public archives. For the time being at least, the Web favors the classic works of a traditional text-oriented approach to literature instruction.

The text-oriented approach to literature instruction also emphasizes close textual analysis. On first glance, New Critical close reading seems ill-matched with the World Wide Web. If anything, digital texts seem to expand on the Web, often hyperlinking to contextual, biographical, and historical information, the kind of extratextual fat the New Critics were eager to excise from literary interpretation. Furthermore, the New Critical regard for the text as an organic whole seems jeopardized by a fairly routine occurrence on the Web, the publication of multiple electronic editions. A more practical concern is the discomfort most feel when reading online: screen resolution is much lower than print resolution, resulting in eye strain and fatigue. How then might the Web be used for close textual analysis?

One way involves moving away from the specific methodology advocated by the New Critics—close reading—to a more general concern with critical and careful textual analysis. In doing so, we might observe that reading a literary text on the Web—an electronic edition of Hamlet, for example, hyperlinked to secondary
resources—does finally underscore the significance of the text itself, as by analogy, reading multiple commentaries on the same scripture passage ultimately makes for more rigorous exegesis. In other words, the very expansiveness of the Web may promote a version of close textual reading that—while not exactly in keeping with New Critical theory—has the centrality of the text as its main principle.

At the same time, the Web offers critical tools that literature instructors may use to encourage careful textual analysis. Particularly helpful are sites dedicated to literary theory, where students can try on different critical lenses, learning how to read a text from multiple perspectives. As Landow suggests, the information medium is multivocal, since it “does not permit a tyrannical, univocal voice” (Hypertext 36). As we have seen, Landow argues that hypertext blurs the distinction between individual authors, as well as between author and reader, resulting in a multivocal, collaboratively produced text. Momentarily putting aside objections raised by Aarseth and other critics, we can see how a multivocal medium accommodates the study and application of literary criticism. The Web may be the ultimate platform for the practice of perspective switching.

Purdue University’s Introductory Guide to Critical Theory (ed. Dino Felluga), for example, offers information on six critical approaches, providing general overviews, definitions of key terms and concepts, sample applications, lesson plans, hypertext versions of critical articles, and a variety of links for each theory. Here, a student interested in psychoanalytical criticism could read about its important figures, define the concepts of superego and id through the glossary, and review a Freudian analysis of the Dürer Woodcut. Equally exceptional is the Introduction to Literary Theory at Mary Mount College. Assembled by Dr. Kristi Siegel, the site offers a glossary of eighteen critical perspectives, naming their key practitioners, important
concepts, and crucial works. The Mary Mount site provides links to a number of similar resources, many of which link to even more sites, making it no exaggeration to claim there are hundreds of Web sites concerned with literary theory.

Chapter Four details how I used these encyclopedic resources in conjunction with *Heart of Darkness* by Joseph Conrad. The novel, a mainstay in the British literature canon and the secondary English curriculum, is available in multiple electronic archives. I used an electronic version of the text, along with Web resources on literary criticism, to teach my students the principles of critical and careful textual analysis.

**Conclusion**

Though much of the theory surrounding the new digital medium has focused on the way it differs from codex literature, this chapter has argued that the World Wide Web can support reader-oriented and text-oriented approaches to literature instruction. Drawing on critical theory advanced by Landow and Aarseth, I have argued that using the Web to teach literature involves exploring its unique properties while remaining rooted in what we already know about literary reading. I have defined two of these unique qualities, likening the Web to both an environment and an encyclopedia, and aligning it with the goals of reader-oriented and text-oriented literature instruction. Chapters Three and Four illustrate how the concepts proposed here—Web as environment, Web as encyclopedia—function in a real-world context: my own high school English classroom.
CHAPTER III

WEB AS ENVIRONMENT: RESPONSE-ORIENTED READING
AND BRAVE NEW WORLD

Texts are not understood purely verbally . . . but are understood in terms of embodied experiences. Learners move back and forth between texts and embodied experiences. More purely verbal understanding comes only when learners have had enough embodied experience in the domain and ample experience with similar texts.


The boundary between the inner and outer world breaks down, and the literary work of art, as so often remarked, leads us into a new world.

Louis Rosenblatt, *The Reader, the Text, the Poem* (1978)

Introduction

Response-oriented theory holds that literary reading is a transaction, during which the active reader creates meaning by applying her knowledge and experience to the text and its conventions. Central to this transaction is the imagination, which allows the reader to envision the story world, make connections between the text and her own life, and reflect critically on the text and its broader contents. This chapter suggests that the World Wide Web, an immersive and participatory medium, is the ideal environment to activate and accommodate the imagination of the reader. This point is illustrated by the main research narrative of this chapter, which describes how I used a virtual text-based environment called a MOO to engage my high school students in the novel *Brave New World*.

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From Theory Into Practice: Web as Environment in the Literature Classroom

As part of my general British literature course, seniors read *Brave New World* by Aldous Huxley. Published in 1932, the novel is a dystopian portrait of the future, in which a powerful global government controls every aspect of its citizens' lives, not through brutal repression, but through biological, psychological, and socioeconomic conditioning. To maintain social stability, the global government—the World State—engineers its citizens in laboratories, alters their intelligence and abilities to fit into a rigidly divided social hierarchy, and keeps them in blissful ignorance by encouraging sexual promiscuity and by pushing a recreational drug called soma. Part satire of modern existence, part caveat about the future, *Brave New World* is popular in secondary literature curriculums.

On this particular day in February of 2002, my seniors return to the computer lab to continue the construction of the *Brave New World* MOO, a text-based virtual environment designed to simulate the setting of the novel. Working together in small groups, students have logged into the MOO, navigated their way to specialized conference rooms, and are now discussing what sort of buildings they might add to the *Brave New World* landscape. A group of three students, who have chosen the aliases Wilbur, Stalin, and Iven_Skinner, begin planning a research center for Alphas, considering how to incorporate important ideas from the novel into their virtual building. Wilbur suggests designing caste-restricted rooms and a soma-vending machine for building residents; Iven_Skinner thinks there should be laboratories, offices, and a main lobby. Each will eventually contribute textual details to their final creation, the Alpha Center for Research and Development of the Turbine Engine.

Today, Wilbur, Stalin, and Iven_Skinner are acting out-of-character, but on
earlier visits to the MOO, they role-played as World State Citizens. For this purpose, the *Brave New World* MOO environment was designed to replicate, as closely as possible, the setting of the novel. Wilbur, Stalin, and Iven_Skinner, for example, are Alphas, the top caste in the futuristic World State. As such, they have privileged access to all of the rooms within the *Brave New World* MOO, while other lower castes, particularly the Deltas and Epsilons, are refused entrance to particular locations. All castes, however, are subject to hypnopedia—the subliminal indoctrination of the World State—as messages about consumerism and social position flash across the screen. Players may also take soma, though students were quick to discover that overindulgence results in temporary paralysis.

On other days, students drop out of character completely and use the MOO to discuss the novel from a more detached perspective. My students used the *Brave New World* MOO to talk about the major ideas of the novel, including its critiques of consumerism, technology, and the culture of recreation. On such days, students log into the MOO, navigate to discussion rooms, and hold conversations on pre-assigned topics for thirty to forty minutes. That the computer lab is all but silent on these days, except for the clicking of keys, is not an indicator of student apathy. On the contrary, the MOO log reveals these conversations to be fairly profound, as students grapple with the implications of a challenging text.

Traditionalists may find the picture painted here unsettling: a roomful of students gazing intently into monitor screens, nearly silent as they immerse themselves in a secondary electronic world. English language arts teachers may even find the student’s fixed stares eerily reminiscent of the World State citizens that Huxley satirizes in the novel. Indeed, *Brave New World* is often invoked by a range of cultural critics who decry the increased presence of technology in classrooms and
society at large. Neil Postman, for example, contends that modern society has largely realized Huxley’s fear—that “people will come to love their oppression, to adore the technologies that undo their capacities to think” (64). C.A. Bowers argues that educational software “reproduces the same cultural patterns experienced as normal in our modern, technological, and consumer-driven society,” a sort of state-sanctioned brainwashing that might be likened to the hypnopaedia of the novel (127). Clifford Stoll complains of “edutainment” technology that “shout[s] the magical mantra: ‘Here’s the no-effort, fun way to learn!’” (147). Such a mantra does indeed resonate with the recreation-driven ideology of the World State.

Critics like Postman, Bowers, and Stoll are part of a larger cultural counter-movement that views computer-mediated education with no small degree of skepticism. Most of these critics share some common objections, namely that computers limit the imagination; equate information gathering with learning; promote superficial understanding; remove the teacher from the classroom; waste time; foster poor reading and writing behaviors; break down frequently; widen the digital divide between the technology haves and have-nots; and even cause physical injury. No doubt, many of these claims have validity, particularly in contexts where computers are misused or misunderstood. Such objections, however, may be answered by the main argument of this study: technology is most effective when it reinforces the pedagogies and practices of existing content areas. More specifically, in the scene I have described above, one particular Web application—the literary MOO—supports the reader-oriented approach to literary reading by immersing readers in an electronic environment.
MUDs and MOOs: A Brief History

The acronym MOO stands for Multi-user Object Oriented, but this explanation is not terribly helpful for the uninitiated. It may be best to think of the MOO as a text-based virtual environment that can be accessed through the Internet, a sort of sophisticated chat room where players interact in real time. Unlike a typical chat room, however, the MOO environment is an ever-changing architecture of interconnected rooms that may be built and remodeled by MOO players. A clearer picture of this application will emerge as the history of the MOO unfolds. In recounting this history, I will touch on four types of MUDs/MOOs, albeit briefly: the adventure MUD, the social MOO, the academic MOO, and the literary MOO.

The MOO is a direct descendant of the MUD, which stands for Multi-user Dungeon, Multi-user Dimension, or Multi-user Dialogue. The first MUD program was designed in England by Richard Bartle and Roy Trubshaw, two computer science students at Essex University. Bartle and Trubshaw created MUD1, a multiplayer adventure game in which players, connecting over the university computer network, could explore a virtual dungeon, interact with each other, and slay monsters (Haynes and Holmevik 2). Unlike recent computer games that rely on graphics, however, MUD1 was entirely text-based: players saw written descriptions of rooms, and moving or talking was a matter of inputting the appropriate text commands, most often verb-object imperatives, as in “go south,” “take sword,” or “kill troll.” The computer then displayed a response (“You move south”) and a description of the new location (“You are in a spacious cavern”) or event (“A giant troll charges at you!”).

The object of MUD1 was simple: a player advanced by killing mythical
monsters and finding treasure, thereby gaining the experience points necessary to move to the next level of the dungeon. If a player persevered, he became a high-ranking wizard, the ultimate goal of the game. In its overall aesthetic and objectives, then, MUD1 relied largely on stock fantasy settings, characters, and plot lines. Not surprisingly, Bartle and Trubshaw admit they were at least partially inspired by *Dungeons and Dragons*, a paper-and-pencil role-playing game loosely based on fantasy fiction. “The main roots were in the imaginations and personalities of their early designers,” Bartle claimed in a Gamespy.com interview. “The links between Dungeons and Dragons and virtual worlds aren't causal, but they are related: I didn't write MUD1 because I played Dungeons and Dragons; rather, I played Dungeons and Dragons and wrote MUD1 for the same reason—I like creating worlds” (Jones par. 8). The fantasy world of MUD1 quickly gained international popularity, as players installed the game on computer networks in Norway, Sweden, Australia, and the United States (Haynes and Holmevik 2). The growth of ARPANET, the precursor to the Internet, allowed MUD1 to spread even more quickly.

Soon software companies recognized and capitalized on the connection between fantasy and computer gaming. At MIT, researchers developed *Zork*, a fantasy adventure game originally designed for network play. When *Zork* became popular on the MIT network, MIT formed its own company, Infocom, and marketed the game for home computers in 1980. Similar to MUD1, *Zork* required players to explore a dungeon, hunt for treasure, fight trolls with a magic glowing sword, and solve elaborate riddles. *Zork* and its Infocom sequels (*Zork I, Zork II, Zork III, Enchanter, Sorcerer, Wishbringer, Spellbreaker, Beyond Zork, Zork Zero*) came to dominate single-player adventure games in the 1980s (Galley pars. 6-13).

Both MUD1 and the *Zork* games were decidedly plot-driven games. The
purpose of playing was well-defined, derived from formulaic fantasy fiction and role-playing games: rescue the maiden, slay the dragon, finish the quest. While making for dramatic game play, this narrative structure did limit the range of actions players could perform. A player might successfully “kill troll,” for example, but a more creative command like “train troll to fetch the newspaper,” was outside the scope of possibility (Murray 79). Despite these restrictions, however, role-playing MUDs—sometimes called LP MUDs or adventure MUDs—flourished in the 1980s. If the abundance of Tolkien adventure MUDs created during this era is any indication, it is safe to say that MUDs are well-rooted in fantasy literature.

A different sort of MUD came into being in the late 1980s. In 1989, James Aspnes created TinyMUD at Carnegie-Mellon University. Unlike MUD1 and its descendants, TinyMUD was not based on a fantasy theme. As a result, TinyMUD differed from earlier MUDs in two significant ways. First, TinyMUD focused on social interaction rather than on plot. Instead of killing trolls and discovering treasure, players chatted in virtual coffee shops or engaged in what became known as “Tinysex.” Secondly, TinyMUD allowed players to shape the MUD environment itself by adding rooms and other virtual objects, as well as by programming these objects to perform certain functions. Though this required some expertise, a TinyMUD player might create a virtual room for himself, stocking it with couches and chairs for other players to use. In previous MUDs, only game designers and wizards enjoyed these privileges. With its social flavor and creative environment, TinyMUD was enormously popular and by matter of consequence, very short-lived. Thousands of players expanded the world until the original server was overwhelmed. TinyMUD lasted only one year, but its legacy was more lasting: a new form of multi-user interaction known as the social MUD (Haynes and Holmevik 2).
Less tied to fantasy literature than the adventure MUD, the social MUD made multi-user environments more available and attractive to a wider audience. The user population of TinyMUD and similar social MUDS exploded, eventually leading to the creation of LambdaMOO, the most popular social MUD of all time. Developed by Pavel Curtis at the Xerox Palo Alto Research Center and Stephen White of Waterloo University, LambdaMOO’s chief selling point was its user-friendly, object-oriented programming language that gave players a great deal of creative power. LambdaMOO (for Multi-user Domain, Object Oriented programming), allowed players to build and program virtual objects with only minimal programming knowledge. A LambdaMOO player might design, for example, a virtual cat that wanders from room to room, greeting other players with a friendly meow. To cope with the growth problems of TinyMUD, LambdaMOO players were restricted to a limited quota of memory space, to fill with their own virtual creations. Additionally, Curtis created a hierarchy that granted higher ranking players (wizards, programmers, and builders) more abilities and space than lower-ranking players (players and guests). LambdaMOO eclipsed even TinyMUD in popularity, as thousands of players from around the world logged in to participate in the new electronic community (Haynes and Holmevik 3).

As LambdaMOO thrived, it became the subject of academic interest. Increasingly, researchers used LambdaMOO to examine issues such as identity play and social interaction. In *Life on the Screen: Identity in the Age of the Internet* (1995), for example, Sherry Turkle contends that virtual communities such as LambdaMOO allow players to re-identify themselves through electronic discourse. “As players participate,” she writes, “they become authors not only of text but of themselves, constructing new selves through social interaction . . . MUDS provide

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worlds for anonymous social interaction in which one can play a role as close to or as far away from one’s ‘real self’ as one chooses” (12). In this sense, role-playing in social environments like LambdaMOO differs from role-playing in plot-driven MUDS. Instead of assuming a fairly fixed persona (e.g. a dwarf), a social MOO participant, as Turkle notes, is likely to have a more fluid sense of identity, regularly experimenting with age, gender, personality type, and self-description (185).

At approximately the same time, a third type of multi-user environment was being developed. If MUD1 can be labeled an adventure MUD and LambdaMOO a social MOO, then this final type might be called an academic MOO. The first such MOO was MediaMOO, created by Amy Bruckman in 1993. A doctoral student at MIT, Bruckman designed MediaMOO as “a place to come meet colleagues in media studies and related fields and brainstorm, to hold colloquia and conferences, and to explore the serious side of this new medium” (MediaMOO par. 1). Like TinyMUD and LambdaMOO before it, MediaMOO flourished, though its chief demographic was far removed from the role-playing aficionados of early MUDs. Its success prompted other institutions to develop their own MOOs for academic, professional, or educational purposes. BioMOO (1993) was created by Weizmann Institute of Science as a virtual meeting place for biologists; Diversity MOO (1993) was designed as a multi-disciplinary educational MOO; AstroVR (1993) was built to host researchers interested in astrophysics and astronomy (Haynes and Holmevik 3).

It bears remembering that these early academic MOOs, like their predecessors, were still entirely text-based. In the years immediately before the World Wide Web, MOO participants connected to MOOs via telnet, a text-based protocol for remote computing. Alternately, MOO users might connect via a software client, a specialized program for accessing MOOs. In either case, the MOO interface was textual, making
it necessary to type text commands to navigate and talk in the MOO, build and
describe new objects (digging in MOO language), and program objects. The learning
curve for these text-based environments was therefore steep: in most text-based
MOOs, learning the basic commands for moving and speaking meant spending
significant time in the MOO or asking more experienced players for assistance. In
less friendly MOOs, a novice unfamiliar with basic commands might be labeled a
“clueless newbie.” Creating and programming objects involved more work still, since
doing so required a specialized subset of MOO language. Non-programmers can find
this language “frustratingly arcane,” as Howard Rheingold and others have observed
(165).

Despite these difficulties, text-based MOOs held a particular fascination for
progressive educators in the composition field, who were experimenting with CMC
environments (computer-mediated communications) as writing spaces. Throughout
the early 1990s, a small pocket of composition theorists used MOOs as virtual writing
centers, insisting that MOOs empowered marginalized students, established local and
global writing communities, promoted collaborative writing, enabled effective peer
revision, and supported constructivist pedagogy. Salt Lake Community College, for
example, established the “Virtual Writing Center MOO” in 1994, as a space where
students could talk with other writers, share their writing with classmates or tutors,
collaborate in the construction of the MOO, and even take distance-learning writing
classes. Dakota State University developed a similar MOO, the Virtual Trojan Center
MOO, which was used for distance education, technical writing, and composition
courses (Haas and Gardner 1-4).

At the University of Missouri Columbia, Eric Crump developed ZooMOO as
an online writing center. Reflecting on this experience, Crump suggests that “a tool
like MUD profoundly changes the landscape of education and how we write our way around the new terrain” (177). More specifically, Crump believes that MOO technology can radically reshape how a writing center works. To take advantage of this technology, writing centers must take what Crump calls “an evolutionary leap,” and redefine their very purpose. Traditionally, Crump suggests, writing centers have been places where students, oftentimes desperate, seek authoritative advice from expert writers, in hopes of securing a higher grade on a writing assignment. MOOS can certainly accommodate the sort of conversations that typically occur in a traditional writing center. In fact, a MOO may be a better location for discussions about writing, since MOO participants converse by writing. Conversations occur in real time and are remarkably similar to the oral communication that would happen in a writing center. Best of all, MOO discussions can be logged—they are *capturable*, in Crump’s language—and transcripts can be given to students for further review. Still, Crump believes that a MOO has greater value. Instead of merely relocating the writing center into cyberspace, the MOO lets a “community of writers” develop and grow. Unlike the traditional writing center, whose purpose is “treat texts” wounded by the red pen of composition instructors, a MOO writing community builds relationships, becoming a egalitarian place “for congregations of writers” (185).

Detractors of these writing environments, however, emphasized two chief difficulties. First, the synchronous conversation lauded by Crump and others can be fragmented and hard to follow, particularly when multiple users occupy the same room. In such situations, several conversations can occur simultaneously, making extended, coherent discussion nearly impossible. Second, operating within a text-based MOO is non-intuitive, since users must know a set of cryptic commands to perform the most basic of functions. New users often felt lost or paralyzed in these
environments. Making matters more challenging, the help feature on most MOOs requires prior knowledge of MOO vocabulary. This point might be illustrated by Figure 1, the opening screen for LogMOO, the small MOO that originally hosted the *Brave New World* MOO.

![Figure 1. Opening Screen of a Text-Based MOO (LogMOO)](image)

After logging in, a user finds himself in the Coffee Shop, described in a short paragraph of text. The text informs the user that the virtual Coffee Shop may be used for conversation, but provides few additional guidelines. The novice might wonder how to talk, how to move about the MOO, what to do, or more broadly, what purpose the virtual space serves. Without prior training, a newcomer might become disoriented and frustrated. This is not to dismiss text-based MOOs. As I will argue, such environments have their advantages: the “architexture,” of such environments, as

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Haynes and Holmevik label it (4), requires imagination from its players, as they visualize the setting the text describes. Additionally, creating and describing rooms in a text-based MOO demands a certain economy of language, since long descriptions typically go unread.

Ultimately, however, frustrations with text-based MOOs led to the creation of friendlier MOO interfaces in the mid-1990s. If the text-based MOO could be compared to the DOS, the command-line operating system of the late 1980s and early 1990s, then the MOO interfaces that developed in conjunction with the World Wide Web (1994) might be likened to the Windows operating system. Windows provides users with a graphic interface, through which they can directly manipulate files and programs without an extensive understanding of the inner language of the computer. By comparison, several MOO programs designed in the mid-1990s added a Windows-like interface, in the hope of making the MOO environment less daunting for students and educators alike. One example is the Pueblo MOO client, released by Chaco Communications in 1996, which divides the interface into a large reading pane where text descriptions are displayed, a command bar, a clickable exits pane to help with navigation, and a typing pane, where users enter what they want to say. Notably, the reading pane may also include hypermedia, such as images or hyperlinks, making the entire interface act like a Web browser (Hass and Gardner 11-15).

Similar in design to Pueblo, the enCore interface (Figure 2) was developed in conjunction with LinguaMOO, a virtual environment created in 1995 at the University of Texas at Dallas. Originally a text-based MOO, LinguaMOO was established for two purposes: first, to serve local instructors and students in the university rhetoric and writing program; second, to host a more global community interested in researching and collaborating on projects focused on the humanities and
the electronic media. In light of these goals, LinguaMOO co-founders Cynthia Haynes and Jan Rune Holmevik began work on a more user-friendly interface that would “make it easy for educators to set up and run educational MOOs [and] Make it as easy and convenient as possible for users to access and utilize the MOO technology” (enCore Home).

The resulting interface, enCore, debuted in 1998. As shown in Figure 2, the enCore interface splits the screen into two large panels, framed on the top and bottom by two horizontal bars. The left side of the screen represents the traditional text-based MOO, where room descriptions and events are displayed entirely in text. The right side of the screen, however, looks and functions like a Web browser. It may include graphics that correspond to the textual description of a room. In this case, the opening screen of the Secondary Worlds MOO includes an image of a coffee shop named the “Secondary Worlds Café.” The café is described in text, both beneath the image and on the left side of the screen.

The right side also includes navigational hyperlinks to other rooms in the MOO, including a “campus,” and three story worlds within the MOO: *Brave New World* (recently transplanted from LogMOO), *Lord of the Flies*, and *Abbey’s Cabin*. Importantly, these hyperlinks may also connect to Web resources, such as the full electronic text of *Brave New World* or a CNN report on human cloning. Additionally, the right side includes iconic representations of the virtual objects present in the room, including a coffee bar, newspaper, couch, and table. Users may manipulate each of these objects by clicking on them. Clicking the coffee bar icon, for example, yields instructions on how to drink a virtual cup of coffee. At the top of the screen are a collection of buttons that users may click to perform basic commands, such as viewing other players, creating rooms or objects, or asking for help.
The text pane at the bottom of the left screen allows players to talk (say “hello”), emote (scratch head), or issue text commands (drink coffee from bar). Taken as a whole, the split-screen interface and its accompanying command bars provide a more visual, intuitive MOO environment that capitalizes on the resources of the World Wide Web.

Figure 2. A Graphic MOO Interface (enCore Client)

By design, the enCore interface is well-suited for educational purposes. Teachers may create virtual classrooms and equip them with a variety of helpful instructional tools, such as a recorder that logs MOO conversation, a projector that displays Web slide shows, and a VCR that plays transcripts of lectures or study guides. The classroom itself contains virtual versions of desks and blackboards, and

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may be locked for privacy. Many institutions have utilized enCore as an educational tool, since enCore is an open-source program and free to download and install. The LinguaMOO web site provides a representative list of academic MOOs that currently use the enCore interface. These include the Old Pueblo MOO at the University of Arizona, the Villa Diodata MOO at the University of Maryland, the Pro-Noun MOO at Purdue University, and the NCTE MOO (LinguaMOO Home).

Many of these MOOs still define themselves primarily as writing spaces, virtual versions of the writing centers typically available on campus. Representative examples include the Pro-Noun MOO at Purdue, and the less creatively named Texas Tech English Department MOO. Other MOOs are designated more specifically for second language learning. These include MOOssiggang (German) and MOOlín Rouge (French), two virtual environments developed for “computer-assisted language learning.” Still others MOOs classify themselves more broadly as multi-purpose educational, professional, or research spaces (LinguaMOO Home).

What is apparent from the Lingua MOO list, however, is that few academic MOOs define themselves as specifically literary environments. This is somewhat surprising, given the MOO’s roots in fantasy fiction as well as its capacity to create immersive environments through graphics and other hypermedia. In fact, only two MOOs listed at the LinguaMOO site are specifically associated with literary works. The first, the Villa Diodati MOO (a.k.a. the Romantic Circles MOO), simulates the Swiss village of Cologny, where Lord Byron owned a home in 1816. Here, according to legend, Byron, Percy Shelley, and Mary Shelley competed against each other in a story-telling contest, a contest that eventually yielded Mary Shelley’s Frankenstein. Users of the Villa Diodati MOO may stroll through the Swiss village, visiting the school, the village square, the waterfront, or even Maison Chapuis, the cottage rented
by the Shelleys in 1816. Each of these locations is represented textually and graphically to immerse players more fully in the literary world—the waterfront even has streaming video of Lake Leman. The overall geography of the Villa Diodati appears fixed, with no opportunity for users to expand its setting. As for role-playing, the login page claims that users may “become a Frankenstein character,” and play a game entitled “In Pursuit of Frankenstein,” though there were no instructions explaining how such role-playing actually worked. Villa Diodati does offer a variety of resources to aid in critical discussion of Romantic literature. The MOO links directly to electronic editions of the Romantic Circles Praxis Series, a renowned collection of Romanticism scholarship (Villa Diodati MOO Home).

The second literary MOO, cmc MOO (University of Bergen) hosts the Midsummer Night’s Dream Project. The project is intended to replicate the “the fictional landscape in Shakespeare’s play” and “the Globe theatre and the surrounding streets of Southwark as they were in Shakespeare’s time.” Users may visit select locations from the play itself, wandering through Titania’s Bower and a Wood near Athens. Notably, these settings are closely tied to the language of the play: from a Wood near Athens, for example, users may follow links “over hill,” “over dale,” “through bush” or “through briar,” phrases taken from the Fairy’s speech in Act 2.1. At Titania’s bower, lines from Act 2.1 even begin to scroll down the text side of the screen, replicating the scene in real time. These textual elements evidence a close connection between the Midsummer project and the play. Users have no opportunity to role play as characters, though as Juli Burk argues, the MOO possesses “inherently theatrical elements” (233). The Midsummer project does offer users a variety of analytical tools for reading the play, including a hypertext version of the play and links to Shakespeare resources (cmc MOO).
Both the Villa Diodata and Midsummer Project are literary MOOs. Working from these two examples, we might suggest that a literary MOO combines the role-playing aspect of early adventure MOOs, the creative potential of social MOOs, and the educational purposes of academic MOOs. More specifically, a literary MOO replicates the setting of a literary work, allows users to expand and elaborate on that setting, encourages character-based role-playing, and provides a rhetorical space for critical analysis of the literary work. In doing so, the literary MOO functions as an electronic environment, an immersive and participatory space where the objectives of reader-oriented literature instruction may be realized. The Brave New World MOO is such an electronic environment. The remainder of this chapter illustrates how the Brave New World MOO supported reader-oriented literature instruction in my senior British literature class.

Experiential Reader-Response Theory

As a high school English teacher, I taught Brave New World to seniors in my British literature class for five years. The novel has long been a staple of the secondary literature curriculum, but it has gained particular relevancy in recent years, as changes in technology bring the world arguably closer to the future that Huxley envisioned. While many of my students enjoyed the work, no small percentage griped that Brave New World was difficult to get into, or misunderstood its satirical thrust. These complaints illustrated that my students were reading the book at arm’s length, not entering the literary world created by Huxley or reflecting critically on that world. I sensed that students were not experiencing the text as fully as they might. Year after year, low test scores and uninspired essays confirmed this intuition.

To address this situation, I stepped into the role of teacher-researcher. As I
explain in the introduction to this study, my own classroom research is rooted in the broader tradition of action research, in which a teacher makes a systematic inquiry to gather information about and subsequently improve the ways their particular educational setting operates, how he teaches, and how well his students learn (Mills 6). This particular brand of action research may be characterized as authentic, situated as it is in real-world contexts; dynamic, allowing for continual shifts and adjustments in research strategies; and meaningful, aiming to improve teaching and learning in a very real way. My own inquiry, initially located within the context of my particular classroom, began as a simple question: How can I get students to experience *Brave New World*?

In asking this question, I invoked the language—*experience*—of reader-response theory. As Richard Beach observes, reader-response theory is large and contains multitudes of approaches: “Writers who have been called ‘reader-response critics,’” he writes in *A Teacher’s Introduction to Reader-Response Theories* (1993), “embrace an extremely wide range of attitudes toward and assumptions about, the roles of the reader, the text, and the social/cultural context shaping the transaction between the reader and text” (2). As noted in the first chapter of this study, Beach categorizes reader-response theories into five broad categories: textual, psychological, social, cultural, and experiential. By its very nature, my inquiry moved toward the experiential model of reader-response theory, which is broadly concerned with how students engage or experience literary texts. Experiential reader-response theory seeks to identify and describe the strategies readers employ—for example, how they identify with a character, visualize the setting, draw connections to their own lives, and detach themselves from the story in making a critique. My chief interest was making these meaning-making strategies more explicit to my students, in hopes that
doing so would create more engaged and effective readers.

In addition, the experiential response model proposed by Jeff Wilhelm resonated with me as I thought about *Brave New World*. In *You Gotta Be the Book* (1997), Wilhelm constructs a three-part model for understanding literary reading. Proficient readers, according to the model, engage literary texts on three different levels, or dimensions. The first of these Wilhelm labels the “evocative dimension.” On this dimension, readers enter the story world, show interest in the plot, relate to characters, and visualize the story world. On the second level, the “connective dimension” in Wilhelm’s terminology, readers engage in more analytical activities, including elaborating on the story world and connecting literature to life. Finally, on the third level, the “reflective dimension,” engaged readers consider significance, recognize genre conventions, understand reading as a transaction, and evaluate both the author and themselves as readers.

Sophisticated readers operate on all three levels simultaneously, moving between evocative, connective, and reflective stances. “The dimensions point out that there are various purposes and ways of reading,” Wilhelm writes. “When reading in different ways, readers operate on different levels—privileging the ones useful to them and responding less, if at all, on other dimensions” (*You Gotta Be the Book* 48). This three-part model, broadly representative of an experiential approach to reader-response theory, eventually became a conceptual framework for my inquiry, as I asked how my students might experience *Brave New World* more fully.

The first level of response in Wilhelm’s experiential model is the evocative dimension. While each of the dimensions includes particular reading strategies, measuring and describing these strategies can be somewhat speculative, since doing so involves, as Michael Benton observes, “the unavoidable difficulty of monitoring
and analyzing an invisible and instantaneous process in the absence of empirical evidence” (“Possible Worlds” 29). This difficulty notwithstanding, Wilhelm derives his experiential model from over 1,000 of his own secondary students, relying on a range of data-gathering protocols, including student conferences, interviews, literary letters, and symbolic story representations. Based on their input, Wilhelm proposes that the evocative dimension of literary reading consists of entering the story world, showing interest in the plot, identifying with characters, and seeing the story world.

The process of entering the story world begins when the reader first encounters the text, drawn by its cover, its title, or perhaps the recommendation of a friend. In this opening move, the reader makes superficial inquiries about the text, forming images or making predictions based on their brief encounters. If this quick evaluation looks promising, the reader continues; if not, she moves on to another book, unless of course the text is required reading. Should she decide to carry on, she begins to develop her initial impressions of the text, entering further into the story world by “getting into the story’s sense of play and action” (You Gotta Be the Book 51-55).

Judith Langer labels this first act “being out and stepping into an envisionment,” in which the reader makes a brief incursion into the text world, searching for clues about its characters, plot, setting, and situation (16). Like Wilhelm, Langer suggests that the reader first tries to gain a sense of what the text will be about, by gathering surface details. The reader relies on this information—and her previous experiences with other texts—to begin building an envisionment, or a temporary understanding that changes as the reader enters further into the text (16).

As Michael Benton observes, the concept of entering a world is germane to the idea of fiction itself: “The notion of a world [his emphasis] in discussions of
fictional experience," he writes, "is the single most common idea. It appears in a variety of guises, not least in recent developments in the broad church represented under the title "reader-response criticism." In keeping with this idea, Benton uses Tolkien's term, "secondary world" to describe the story world of the literary reader. For Benton, a secondary world is the product of two unique imaginations: that of the writer, who creates a virtual world between his inner self and the external world; and the reader, who creates a virtual world between his inner self and the external world ("Possible Worlds" 26).

Entering this secondary world, for Benton, occurs when the reader gets into the "world of the head," that exists in her own mind, a "sort of mental playground which the reader is aware of making and entering." Of course, different texts and different readers combine to create different mental playgrounds: Benton suggests that secondary worlds may exist on a continuum between the conscious and the subconscious, between total engagement and total detachment, and between the temporal events of the primary world and those of the secondary world. ("Possible Worlds" 28-29).

Another important process on the evocative dimension of reading involves seeing the story world. According to Wilhelm, readers who successfully visualize a story world experience it as "an intense and comprehensive reality," while those who had difficulty creating images "were unable to respond in any of the other response dimensions" (You Gotta Be the Book 56). The importance of mental imagery is well supported by theory and research, both asserting the centrality of image production to the reading process. Michael Benton, for example, theorizes that mental imagery is the very substance of the secondary world. He likens such imagery to "the prime coinage of the brain during the creative activity of writers and readers." Through
words, the writer shapes images into a text; through images, the reader shapes the text into a meaning ("Secondary Worlds" 73).

In Enhancing Aesthetic Reading and Response (1991), Philip Anderson and Gregory Rubano apply this theory to practice, reviewing scholarship and research focused on the role of imagery in reader response. As Anderson and Rubano note, a study by Long, Winograd, and Bridge (1989) found image construction to be a key component of reading both expository and literary texts; Pavio (1986) illustrated a correlation between the imagery-based cognition and verbal/linguistic cognition; Purves (1985) theorized that dominant textual images constrained idiosyncratic reader-produced images; and Sadoski et. al. (1988) found a strong relationship between a reader's construction of mental images, his emotional response, and his understanding of the text. For Anderson and Rubano, this body of research ultimately positions imagery as centrally important to reader-oriented literature instruction (17-19).

Reading on the evocative dimension also involves forming relationships with characters, according to Wilhelm. For most readers, this step entails becoming more intimately involved with an important character, either by assuming his perspective or taking the perspective of an intimate but unseen friend. Another reader may maintain more distance between herself and the character, observing him from a hidden vantage point outside or inside of the story itself. Readers may even take the perspective of an inanimate object that spies on the character as he goes about his business. Most readers, Wilhelm observes, have preferred perspectives they assume, though switching perspectives is also common (You Gotta Be the Book 56-59). Benton contends that switching perspectives is crucial to the literary experiencing, noting that such shifts lend greater overall coherence to the literary work ("Possible
Patricia Enciso drew similar conclusions in her in-depth case study of a fifth-grade reader. Using an innovative protocol called a symbolic story interview, Enciso encouraged Erika to use paper cutouts to represent characters from the stories, herself as a reader, the author, the narrator, and other important elements from the stories. These symbolic representations, along with her reading log, showed that Erika maintained deep interest in the main characters and regularly switched her perspectives from one character to another.

The second level of Wilhelm’s experiential response model is the connective dimension. According to Wilhelm, readers on this dimension make two distinct moves: they elaborate on the text to “extend the story world beyond what was explicitly described in the text;” and they make explicit connections between their own lives and those of characters, to “consider how the reading experience might inform choices and actions the reader might take in his or her own life.” Wilhelm further classifies the first of these moves, elaborating on the story world, to include making intertextual connections, filling gaps, and imagining extra-textual events. The second move, connecting literature to life, entails learning from characters and events, role-playing, and telling others about the text.

The idea of filling gaps is a key component to Wolfgang Iser’s model of reading. Like Rosenblatt, Iser sees reading as a dynamic transaction between the reader and text. And like Rosenblatt, he posits that the reader and text co-create a virtual text that exists halfway between the two. In his 1978 work *The Act of Reading: A Theory of Aesthetic Response*, Iser proposes a phenomenology of reading, the chief assumption of which is that “the linguistic signs and structures of the text exhaust their function in triggering developing acts of comprehension.”
The text, for Iser, is the catalyst for the reader’s production of meaning.

It is the structure of the text that allows it to function as catalyst. More specifically, the text contains semantic gaps that the reader fills in during the reading process. Because an entire text can never be perceived at one time, the reader takes what Iser calls a “wandering viewpoint,” or a temporal perspective that experiences the text as a manifestation of separate segments, rather than all at once. In essence, each textual segment contains reading instructions, information that helps the reader construct the secondary world. At the same time, however, the text leaves room for that which is not said: “The incompleteness of each manifestation,” writes Iser, “necessitates syntheses, which in turn bring about the transfer of the text to the reader’s conscious” (109). In a complex process, the reader synthesizes what is known with what remains unknown.

At the smallest scale, this process of synthesis occurs at the sentence level. In reading a sentence, the reader does more than merely decode individual words; he synthesizes previous semantic, syntactic, and graphophonemic information, as well as his life and reading experiences, to anticipate and create meaning. That sentence then becomes part of the information context which helps to determine the meaning of subsequent sentences, as well as recast those sentences which have already been read. For Iser, the process of reading sentences is identical to the process of reading the larger texts they constitute: “As meaning is not manifested in words,” he writes, “the reading process cannot be mere identification of individual linguistics signs” (120). The reader of the literary text, in other words, fills in gaps by looking back at what has been read, by drawing on his own experiences with reading and the world, and by predicting what may occur in the future of the text.

As Wilhelm notes, Iser’s understanding of the reading process privileges the
act of elaboration, in which the reader makes intra-textual connections to other works or authors, fills in missing information in the story, and imagines extra-textual events (You Gotta Be the Book 67-69). Langer also emphasizes the importance of elaboration. In the second reader stance of her model, “being in and moving through an envisionment,” the reader uses the knowledge he already possess—personal knowledge, knowledge about the text, knowledge about context—to go beyond what is explicitly stated about the setting, plot, or characters (17).

Reading on the connective dimension also involves making personal connections to the text, what Wilhelm calls “bringing literature back to life” (70). If readers were unable to apply personal knowledge to what they were reading, Wilhelm found, they were also unable to drawn lessons about their own lives from the text. Again, Langer’s model parallels Wilhelm’s. Her third reader stance—“stepping out and rethinking”—involves making introspective moves:

In all the other stances, we use our knowledge and experiences in order to make sense of the text-words we are developing; they are essentially envisionment-building stances. In this stance, things are just the reverse; here we use our developing understandings, our text-worlds, in order to add to our own knowledge and experiences. It is the time when the thoughts in our envisionments give us cause to shift the focus of meaning development for a moment, from the text-word we are creating to what those ideas mean for our own lives (18).

The final tier in Wilhelm’s reading model is the reflective dimension. As Wilhelm notes, readers operating on this level separate themselves from the story and examine it from an objective perspective. This detached perspective may be applied to the text itself. Readers on this level become detectives, asking “How does the text work?” and posing answers through a careful examination of its details. Coming under close scrutiny during this stage are all the elements that constitute a text: its genre conventions, characters, plot, themes, symbols, and other literary features. At
the same time, readers on this level focus on their own reading experience, working to revise their interpretations while recognizing themselves as key players in the literary transaction. Finally, readers also critically evaluate the author, as they seek to identify his or her purpose in writing the text (You Gotta Be the Book 74-84).

In Judith Langer’s model, taking a detached perspective involves “stepping out and objectifying the experience.” For Langer, this fourth and final reading stance occurs when the reader “distances [himself] from the envisionment [he has] developed and reflects back on it.” Much like Wilhelm, Langer suggests that the reader objectifies the text, her interpretations, and her reading experience. “In this stance,” she writes, “we become critics, aware of tensions between the author’s and our own sense of the world, aware of insinuations of conflict and power, and aware of critical and intellectual traditions and the place of this work within them.” In this stance, readers see the text at a distance, from a more objective perspective (18-19).

For James Britton, this objective perspective is part and parcel of literary reading. In Language and Learning (1970), Britton discusses two key roles taken by the reader. The reader takes the first role, the participant role, when she has a practical purpose for reading: to gather useful information in order to make a decision in the world outside of the text. Literary reading, in contrast, involves taking the spectator role, in which the reader, having no real-world stake in the story, is free to savor the way it makes her feel and to contemplate the way it has been put together. As spectator, the reader may consider the forms of a literary work—“the formal arrangement of feelings, of events, and ideas . . . and the forms of language . . . in which the whole is expressed” (121). Britton is not suggesting that the reader is unengaged in the literary world, but rather emphasizing how literary discourse encourages a detached and critical perspective. The reflective dimension, then,
involves a wide range of analytical moves, including careful scrutiny of textual elements, literary and historical contexts, the role of the reader, and the role of the author. It is the final dimension of Wilhelm’s three-tiered model, which offers a useful framework for understanding the processes of literary reading.

As I discovered, the model also provides an equally useful framework for thinking about literary MOOs. I began exploring MOOs after learning about them at the 2001 NCTE convention. After a few weeks of Web research, I met Aldon Hynes in LambdaMOO, a popular social MOO where I had made a few inquiries about using a MOO for literary purposes. Aldon, a programmer from Connecticut who ran a MOO of his own named LOGMOO, was intrigued by my question, which by now had taken this shape: how can I use MOO technology to get my second-semester seniors to experience *Brave New World*? An expert at MOO programming, Aldon became my technical advisor, willingly showing me the inner workings of a MOO environment. For two or three months before the semester began, Aldon and I met online at LogMOO, discussing and designing what would become the *Brave New World* MOO. Our shared vision was a literary world where students role-played as characters from the novel, added to the landscape with their own buildings, and met to discuss the novel in small groups. Through our collaboration, I began to see connections between MOO technology and Wilhelm’s three-part model of reader response.

Living *Brave New World*: The Literary MOO and the Evocative Dimension

As Aldon and I worked together before the semester began, a number of goals for the *Brave New World* MOO emerged. First, I wanted my students to enter the novel in a way that Wilhelm and others described—to let them enter the story world
through the virtual reality environment the MOO allowed me to create. Entering this secondary world, as we have seen, involves asking questions about a text and choosing to involve oneself in its world. For this to happen, I reasoned, the *Brave New World* MOO had to represent the world of the novel as closely as possible.

As in most science fiction and fantasy, setting is extremely important to *Brave New World*. Huxley spends the first three chapters of *Brave New World* detailing the strange world of his satiric imagination, delaying the introduction of main characters until his setting is well established. The rich description of the setting made it easy to reproduce in the MOO, once Aldon had taught me a few simple commands. Before beginning the *Brave New World* unit, I replicated a key location from the novel: the London Center of Hatchery and Conditioning. Within this central location, I created and connected over twenty rooms, in some cases using Huxley’s own words. Developing these rooms and programming their special features was time-consuming, but ultimately yielded a convincingly “real” world. I also created a gateway room, somewhat like the old wardrobe in the *Narnia* series. When players first log in to the *Brave New World* MOO, they find themselves in the Coffee Shop:

---Coffee Shop---

You are in a coffee shop. There are several comfy chairs here, a few tattered couches, and a scattering of tables. On one of the tables, a few books rest. Among them is a copy of *Brave New World* by Aldous Huxley. You may enter this book by typing “in.” Otherwise, you may stay here to talk. Conversation topics to consider: Are you enjoying the MOO experience? What is rewarding or frustrating about it? Is it enriching the experience of reading *Brave New World*? Why or why not? You see a coffee bar here.

In creating the Coffee Shop, a sort of drawing room to the secondary literary world, I hoped to emphasize the idea of entering, making the process described by

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1 For a complete description of all of these rooms, see Appendix C
Langer as “being out and stepping into an envisionment” explicit and concrete. Like Wilhelm, who uses drama and art to help remedial readers understand their positions in relation to the story world, I used the Coffee Shop to help my students recognize that literary reading can involve an active and deliberate entrance into a secondary world. A player enters *Brave New World* by typing *in*. When she does so, she enters the Main Lobby of the London Center of Hatchery and Conditioning, the opening location of the novel itself:

----Main Lobby----

Welcome to the Brave New World MOO. You are in the main lobby of the London Center for Hatchery and Conditioning. The room is large and industrial looking, with polished green marble floors and stark white walls. Sitting at a large metallic desk in the center of the room is a Beta-minus receptionist. There is also a large bulletin board on the east wall. Exits include an elevator to the west and a hallway to the east. To the south, you see an indoor bumble-puppy court.

Having entered the story world in a nearly literal sense, a player makes an initial survey to assess its possibilities. At this point, my students had only a brief introduction to the novel, so they were eager to explore the strange landscape represented in the *Brave New World* MOO. It was my hope that players might read the description of the Main Lobby and ask “What is a Beta-minus receptionist?” or “What is indoor bumble-puppy?” More astute students might notice the connotation of the word *hatchery* and begin to speculate on the nature of society in the future setting of *Brave New World*. While such questions need not be vocalized to have occurred, small snippets of conversations logged on the opening day of the MOO do evidence this sort of initial inquiry: “What’s lupus anyway?” asks one student, Delta3, when she discovers that workers in the Embryo Room are affected by the disease. “A spidery skin disease caused by an immune deficiency,” answers Delta4, “it dries out the eyes, too.” Other students were eager to experiment with soma, the
recreational drug of the World State, a virtual version of which was available in the
Brave New World MOO. “In which case are we supposed to get soma?” asks
Gamma4. “Don’t give in to soma—resist the system!” warns Delta3.

Of course, not all of the inquiries were aimed at understanding the novel. Many of the questions raised on the first day concerned simple operational procedures: “How do you describe what you’re doing?” “How do I get out of here?” and “How do I do things besides talk? I wanna kick people too!” were all questions my students asked as they learned the text-based commands of the MOO.

Further interrogation of the text world occurred when students, interested exploring the virtual Brave New World, moved from location to location within the MOO. In Figure 3, an excerpt from the opening day log of MOO activity, each line lists the date and time (January 28, 2002, 13:31:53); BNW for Brave New World; the room name and its object number (----Main Lobby---- #368); the player and object number who performed the action (Epsilon2 #553); and lastly, the action that was performed (Epsilon2 goes east). The activity shown in Figure 3 is frenzied but promising: students jump from the Main Lobby to the Hallway, the Fertilizing Room, the Bottling Room, the Staircase, the Embryo Room, the Fertilizing Room, the Lift, the Dormitory, the Roof, the Hangars, and other locations I had designed. Undeniably, these students were exploring the text world of the novel, making at least a cursory inspection of the secondary world.

With each move, a player encounters a new textual description of the room he has entered. In Figure 3, for example, Gamma1 moves from the Hallway, to the Main Lobby, to the Lift, to the Neo-Pavlovian Condition Room, reading a brief description
Figure 3. Students Explore the Brave New World MOO

of each location in the process. In this sequence, his monitor screen appears like this:

----Hallway----

The hallway is long and narrow, but exceedingly well lit. It leads east to a door labeled Fertilizing Room: Authorized Technicians Only and west to the Main Lobby.

----Main Lobby----
Welcome to the Brave New World MOO. You are in the main lobby of the London Center for Hatchery and Conditioning. The room is large and industrial looking, with polished green marble floors and stark white walls. Sitting at a large metallic desk in the center of the room is a Beta-minus receptionist. There is also a large bulletin board on the east wall. Exits include an elevator to the west and a hallway to the east. To the south, you see an indoor bumble-puppy court. You see a receptionist and a bulletin board here.

---The Lift---

This elevator is operated by an Epsilon semi-moron, clad in Epsilon black and looking rather sullen. “What floor?” he croaks as you enter. You have access to the Basement (b), the Main Lobby (m), the Psychological Conditioning Center (5), the offices suites (28), and the roof (35).

---Neo-Pavlovian Conditioning Room---

A large, bright room, lit by sunshine from a huge window on the southern wall. Half a dozen nurses, dressed in sterile white uniforms, are setting bowls of roses and brightly colored books on the floor. You see khaki-clad babies and a lever here.

In navigating through rooms in the London Center, Gamma1 surveys the world of the text in a literal and participatory way. Since the Brave New World MOO was entirely text-based, students relied on their own imaginations to form mental pictures. As Wilhelm suggests, seeing the story world is an important part of reading on the evocative dimension. I tried to create room descriptions that were evocative enough to help students see the story world but spare enough to allow students to fill in the gaps with their own details. My goal was to have students move through the Brave New World MOO, construct mental images based on the text and their own imaginations, and become immersed in the story world. An evaluative survey conducted at the end of the project shows that two-thirds of participating students agreed that “interacting in the Brave New World MOO helped me understand the

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2 See Appendix D
setting of the novel,” perhaps suggesting that these students were visualizing the story more fully than otherwise might. More importantly, a majority of those surveyed said that “interacting in the *Brave New World* MOO helped me to understand the major ideas of the novel.” Since Huxley relies on setting to communicate his message, it may be that the MOO helped students see not only the story world but also the major ideas of the novel in a more tangible way. In retrospect, a better survey question would have asked students directly if the MOO helped them to visualize the setting.

Another important part of reading on the evocative dimension involves identifying with characters. The *Brave New World* MOO again proved to be an interesting environment for this to occur. To help my students identify with the characters of the novel, I required them to create and role-play characters who might have existed in the futuristic World State. At the beginning of the MOO project, each student was given a generic character, named according to its caste, (e.g. Gamma1). After students had read the first three chapters of *Brave New World*, I required them to individualize these generic characters, according to the parameters of the novel. As shown in Assignment One: Creating a Character (Figure 4), this involved choosing an appropriate name and writing a fitting description.

Huxley, of course, has satirical aims in naming his characters: Marx, Hoover, Ford, and Lenin all fall prey to his barbs. I wanted my students to capture the same spirit in naming their own characters, so I encouraged them to research politicians, psychologists, industrialists, and scientists from Huxley’s own time—individuals whom Huxley might choose to satirize in the novel. After finding appropriate names, students described their characters by detailing their physical description, caste, occupation, and hobbies.
Assignment One: Creating Your Character

You have been given a MOO character with a rather generic description (e.g. Gamma4) and a password that is difficult to remember. Your first assignment is to rename your character, change your password, and describe your character—in other words, to add a little personality to your character. To do so, complete the following tasks.

1. First, you need to rename your character. Let's say your character is named Gamma4. After connecting, you'll need to type the following command to change your name:

   @rename Gamma4 to Vladimir

   Your character is now named Vladimir. Pretty simple

2. More importantly, you must your character must have a name that fits within the setting of the novel. So, renaming your character "Mikelyson" might be amusing, but not really in keeping with the spirit of the novel. For possible names, peruse the book, but avoid naming yourself after a major character like Bernard or Helmholtz.

3. Now for the fun part. Currently, your character has no description. Type look me and you will see what I mean. You need to add a description of your character. But remember, your character is a part of the Brave New World, and should fit within the context of the novel.

   You may also note that you have been assigned a caste (like Beta). Your description should be defined by your caste. If you are a Delta, do not write that you are 6'5, when the novel suggests that Deltas are quite short. Get it? To add a description of yourself, type the following command:

   @describe me as <your description>

   While you're at it, you might want to set your gender. Do so by typing:

   @gender <gender> where gender is male or female.

4. When all of this is done, you should A) Roam the MOO, role-playing as your character, interacting with others, and figuring out how this whole thing works. B) Evaluate your MOO experiences with others in the Coffee Shop.

Figure 4. Creating a Brave New World Character Assignment
By creating their own characters, students identified with characters in the novel and found a perspective from which to view the literary MOO and the novel. The literary MOO, in other words, made another implicit reading process more tangible and deliberate, as students created fixed references points for reading and experiencing the novel. Moreover, their character descriptions below are informed by textual details, as students created their personas by reading the novel for important information. The results were characters who could have occupied the pages of the novel alongside Bernard Marx and Lenina Crowne:

Iven Skinner (an Alpha)

Iven is a tall, handsome man who is head of the World State Island Management Program. He towers over you with his powerful presence and chiseled stature. As you gaze into his mysterious eyes, you see the incredible depth of his knowledge and wisdom.

Wilbur (an Alpha)

An alpha plus who looks like he knows everything about everything. (He does, actually). Wilbur currently works as an aircraft engineer and test pilot for his privately owned aircraft manufacturing corporation. He is fairly tall for an Alpha and obviously very very strong. Wow!

Tito Hoover (a Delta)

A short man, but strong in stature. Born cousin of Benito Hoover, and proud owner of his DDC card (Distinct Deltas Club). Tito prides himself in his khaki color clothes and his vast collection of soma bottles from all over the World State. Tito works hard at being the best Delta helicopter pusher and it shows. He's received seven awards for Best Helicopter Pusher in his union, the Delta Devils.

Bambino (a Delta)

A boy whose job in this Brave New World is to box thousands of packages of soma. The soma is then shipped to various parts of the World State and distributed to those who need it. He makes sure his job is done well and enjoys it completely. He is very pleased with his
role in this Brave New World.

Within the MOO, students role-played as these characters. I designed the MOO to allow students to experience what it was like to live in this world, albeit in a limited way. Huxley foresaw a society rigidly divided into five castes, ranging from the elite, super-intelligent Alphas to the mentally impaired Epsilons. The World State, the global government of the future, predetermines who belongs in each caste through biological and psychological conditioning. I assigned each of my students a particular caste, which raised few objections until they discovered that certain rooms were restricted to certain castes. In addition, MOO players were fed messages that appeared on the screen periodically, a sort of textual indoctrination meant to simulate the sleep-teaching (hypnopaedia in Huxley’s language) practiced by the World State. Hypnopaedic phrases like “Ending is better than mending,” “Everyone belongs to everyone else,” and “A gram is better than a damn,” were soon being parroted by all of my students, demonstrating the power of suggestion and prompting a few to think critically about television advertisements.

Since the socialization of its citizens was of crucial importance to the survival of the World State, the Brave New World MOO also emphasized togetherness. Just as Bernard Marx, the protagonist of the novel, is ostracized because he enjoys solitude, MOO players who spent more than two minutes alone in a room were first reprimanded and then whisked off to join their nearest companion. Players could also take virtual soma, the wonder drug of the World State, whenever they felt distressed or unhappy. Taking soma gave players a “pleasantly narcotic holiday from reality,” but paralyzed them when they overindulged. The point of this, of course, was not to make light of or encourage drug abuse, but to give students further insight into the recreational culture that Huxley critiques.
Outside of the MOO, I used these characters as references points in class discussions. As we progressed through the novel, I encouraged students to imagine where their character was at that point. At the end of the fourth chapter, for example, the protagonist Bernard Marx suspects that he and another character, Helmholtz Watson, are being overhead as they discuss a potentially subversive subject—the meaningless of hypnopaedia—in Helmholtz’ office. I asked students to insert their character into the story at this point, asking the Alphas, for instance, to speculate on what they might do if they knew Bernard and Helmholtz were acting in an unorthodox way. In doing so, I hoped that the students would enter and live in the story world of the novel itself, ultimately seeing themselves as part of the tale.

Many of my students seemed to make this imaginative leap. A majority agreed with the statement that “creating a character in the Brave New World MOO helped me to get into the novel.” And in her end-of-semester evaluation of the MOO, one participant wrote, “I liked the role-playing and virtual reality aspect of it, just because it was fun to pretend and be imaginative.” Or more succinctly, in the words of another student, “It was fun to live the book!”

Building Brave New World: The Literary MOO and the Connective Dimension

This sort of role-playing, however, did not engage all of my students. After the initial thrill of exploring the MOO, some students had trouble acting in character. These students found that, as one admitted, “being in character never really felt necessary or easy to do. Whenever I went on, I had discussions like I normally would . . . I was never a Delta, behaviorally speaking.” Most of my students, in fact, agreed that they had spent only a small amount of time in the MOO acting in character. It may be that role-playing is easier when your character has a specific objective, as in a
murder mystery party, where each player has three or four goals to accomplish by the end of the evening. My students were not sure what to do as their characters—one common question was "What I am supposed to be doing here?"—and this probably inhibited their acting in character. Giving my students objectives drawn from *Brave New World* might have resulted in them identifying with its characters more strongly.³

If the *Brave New World* MOO was to be successful in engaging more students, it had to invite them even deeper into the story world. Wandering through the rooms of the *Brave New World* MOO did allow students to enter the story world, visualize the setting, and identify with characters, but I wanted my students to construct a part of the story world—to elaborate on what might have existed in the World State. As we have seen, the MOO is a highly flexible and creative environment that allows players to build all manner of virtual objects. As such, it was an ideal place for my students to elaborate on the novel by imagining what *might* have been. To some extent, this type of elaboration had already occurred when I asked students to create characters that *could* exist in the novel. To encourage my students to shape the very landscape of the story, I asked them to complete a second assignment within the MOO.

As shown in Figure 5, this assignment asked students to work collaboratively to construct their own buildings in the *Brave New World* MOO. A more sophisticated task than creating a character, this assignment required students to master the MOO commands necessary to build and connect their buildings, to write imaginatively, and to think critically about the way Huxley uses setting as the central vehicle of his satire. While students were allowed to recreate buildings that were mentioned but not described at length in the text, nearly all chose to design original buildings that *could*

³The 1984 MOO which I am currently designing assigns players specific goals. Players who role-play as members of the Thought Police, for example, must vaporize those role-playing as thought criminals.
exist in the World State. Working in small groups, students created the London Hospital for the Dying, the Nightclub, the Alpha Center for the Research and Development of the Turbine Engine, and lastly, a country club called Club Aqua. Once these buildings were constructed, students visited and interacted in them. A player visiting Club Aqua, for example, would encounter the following rooms:

~~~~Main Lobby~~~~
You are in a spacious, atmospherically lit room with several pneumatic chairs and couches grouped about in it. The air has a pleasant aroma that is coming from the sweet-smelling plants in the corners. There is a bulletin board on the wall and a bookshelf in the corner. There are exits to the north to an elevator, south to a chapel, east to a Social Gathering Room, and west to the changing rooms. You see a bulletin board here.

~~~~Chapel to Our Ford~~~~
You are in a fairly small, dimly lit, hexagon-shaped room. There is a circular table in the center with twelve chairs around it. At the head of the table is a small podium, with glowing buttons on it, and a metal T on the front. It is a console for playing synthetic music. In one corner of the room is a small, metallic refrigerator filled with bowls of soma-laced strawberry ice cream. In the center of the table is a large book of Fordism hymns. There is an exit to the lobby to the north.

~~~~Social Gathering Room~~~~
You are in a room where *Brave New World* citizens socialize. There is a soft glow of red light and a faint perfume of soma gas wafts around you. The purple carpet is plush and deep purple, your feet are soothed as you walk about. There are pneumatic couches scattered about and a dance floor serviced by a synthetic music plant. Around the north and east sides a balcony runs around the room. At the south end is a well-stocked bar. You may exit north to the balcony and west to the lobby.
Assignment Two: Building the Brave New World

By now, you should be familiar with the Brave New World MOO. You should have created a character, described that character, and wandered through the rooms in the London Center for Hatchery and Conditioning.

Your next step is to demonstrate that you understand the world that Huxley creates in Brave New World. That is, you need to show me how Huxley uses the setting of the novel to communicate his ideas about modern society. To complete this task, your group must do the following:

1. Discuss and design a building for the BNW MOO.
   - The building must have at least four rooms.
   - Each room must have at least one object with its own description, but no more than three. For example, the microscope in the Fertilizing Room is an object.
   - The building must be consistent with Huxley's vision of the future. In other words, you may stay within the world Huxley creates. This is one critical way to show you understand what the novel is all about.
   - You may take your idea for a building from the novel itself (you might want to design a feely palace, for example), but you may not directly lift descriptions from the novel. Of course, you are free to improvise your own idea, as long as your building could feasibly exist in Brave New World.
   - Your building must illustrate some of the novel's key ideas: class distinction, consumerism, genetic and psychological conditioning, state-sponsored art and religion, etc.
   - You may construct individual rooms for your own characters within your larger building (e.g. an office for an Alpha-plus doctor)

2. Write a description of your building using Microsoft Word
   - The description of each room must be at least 100 words long, but no more than 250.
   - For every object you include, please include a description. See me about how to build special objects like notes and containers.
   - Each room must have at least one exit, and one room in the building must exit to the roof. All rooms should be interconnected.
   - You should include a physical map of your building. A hand-drawn map will be fine, but if you can use Word, more power to you.

3. When you have finished the above steps, each group member should write an individual paper (2 pages, double-spaced, typed) that answers the following questions:
   - How does your building reflect the setting of the novel?
   - What aspect of society does your building criticize?

Figure 5. Building the Brave New World Assignment
What is immediately apparent about these student-created rooms (distinguished from the rooms I designed by the repeated tilde ~~~) is that they illustrate some of the novel’s key ideas: class distinction, consumerism, biological and psychological conditioning, and state-sponsored religion. In the Social Gathering Room, for example, students took the idea of promiscuous socialization—a major virtue in the World State—and rendered an environment where such socialization would be encouraged. There is a sensuality in the description of the room: its plush carpeting, soft glowing lights, comfortable couches, and whiff of soma all hint that the room hosts the casual sexual encounters that Huxley satires.

The details in the Social Gathering Room were supplied both by the text—66 percent of my students said the assignment required “scanning the text for ideas and details”—but also by the imagination of my students. In the Social Gathering Room, for example, students programmed hypnopaedic phrases to reflect its recreational purpose. A player who lingers here is told that “You feel a pleasantly narcotic holiday due to the soma gas,” and that “The red light beckons you to the dance floor.” He also hears lines from a popular song emanating from the synthetic music plant: “Hug me till you drug me honey,” “Bottle of mine, it’s you I’ve always wanted!” “Bottle of mine, why was I ever decanted?” The name of the room is also a student invention, though its bureaucratic-sounding title is pitch-perfect in its imitation of Huxley.

Other student inventions were equally creative: one group developed a minor location in the novel—the Hospital for the Dying—into a more three-dimensional space by adding a lobby and a garage for hearses. Another group reasoned that the World State relied on Alphas to develop its technology, and invented a research center for the turbine engine. These elaborations illustrate that students did more than enter the novel; they re-imagined and extended the story. In Wilhelm’s words, they
went “beyond what was stated or even suggested by the book,” until “the story world [became] what could be called a ‘reader’s world’” (You Gotta Be the Book 66).

At the same time, the building assignment asked students to make personal connections by reflecting and writing about their MOO creations. After finishing their MOO buildings, students were required to write short essays in which they explained how the buildings reflected the setting of the novel, and what aspect of modern society their buildings critiqued. Looking critically at the world around them, students applied lessons from Brave New World to their own lives. In describing the swimming pool locker room in Club Aqua, for example, one student writes:

The products that are available to use in the locker rooms are a total downplay on our world today. We have so many beauty and health care products out on the market, that it is disgusting. Even though we don’t have testosterone hand lotion or wrinkle-ridding towels, we do have products that claim to take days, years off our aging. Looking beautiful and young is a part of who we are as a culture today. If you look, models just keep getting young and younger each day, plastic surgery is considered the norm when you reach your mid-life crisis, and we have so many drugs, that claim the impossible it’s amazing we aren’t a World State.

Designing a locker room (as part of Club Aqua) compelled the student to reflect critically on the beauty myth of contemporary American culture, a phenomenon that as a student in an affluent and brand-conscious high school, he had no doubt experienced first-hand. Making a similar personal connection, another student describes the rationale behind the Chapel to Our Ford:

The religion of the World State, Fordism, and the practices of it were Huxley’s criticism of organized religion and the commercialization of it. I personally don’t have a problem with organized religion, being a Christian and a regular-attending church member. I do feel as though the over-commercialization of the Christian faith, and the turning of a church service into a multimedia, rock-and-roll extravaganza is a bit unsettling and I don’t think it’s a good thing necessarily.

Another student saw his group’s building—the Alpha Center for Research and
Development of the Turbine Engine—as an implicit critique of the modern reliance on technology. While his comments are slightly less personal, they nevertheless indicate that he has applied the lessons of the novel:

The idea that we need an enormous building with thousands of employees to research engines is absurd. Yet that very thing is currently present, only on a smaller scale. General Motors, for example... What would Americans do without their personal vehicles, not to mention busses and airplanes? The idea of increasing consumerism through transportation is no foreign idea to the modern world either. Every successful American is expected to have his own personal vehicle, or is considered to poor to afford one... It is so engrained in our minds that we must have our own car that one could almost call it conditioning.

As evidenced by their essays, these students considered Brave New World in a very personal and critical way, seeing the world around them through the lens that Huxley provides. The Brave New World MOO made two key reading moves on the connective dimension more explicit and real: first by asking them to use their own imaginations to fill in gaps left in the story world; and secondly, by requiring them to think critically about those creations in the contexts of their own lives.

Talking about Brave New World: The Reflective Dimension

The Brave New World MOO helped my students to visualize and render the story world, but I wanted them to see the text with an analytical eye and view themselves as key players in the meaning-making process—to read on what Wilhelm calls the reflective dimension... I knew that this sort of critical reflection routinely occurs during an effective discussion of a literary text, both in teacher-led classroom settings and among peers in small groups. Teacher-led discussions have long been the subject of classroom research: in the ninth edition of Looking in Classrooms
Thomas Good and Jere Brophy compile over thirty years of studies examining discussion questions, questioning procedures, and the correlation between discussion and learning. While acknowledging that the effectiveness of teacher-led discussions often depends on context, Good and Brophy offer guidelines for writing good discussion questions—they should be clear, purposeful, brief, natural, and thought-provoking—as well as recommendations for questioning procedures and a range of methods for coding classroom discussions (346-356).

While peer-led discussion has elicited less attention, one body of research is particularly applicable to this study. In 1994, Harvey Daniels published the first edition of *Literature Circles*, a pioneering work about setting up and facilitating small, peer-led reading discussion groups. In this text, Daniels defined literature circles as student-led book clubs, in which four or five students choose a particular text, follow a reading schedule, and meet periodically to discuss the book along the way. Their discussion, ideally open-ended and natural conversations, is facilitated—not led—by the teacher, who evaluates the students through careful observation. After finishing their book, group members evaluate their own progress, share their reading experiences with the entire class, form new groups, choose another work, and begin again. As Daniels notes in the second edition of his work (2002), literature circles have become an extraordinarily popular tool, with thousands of English language arts teachers across the world using them on a daily basis (1-2). With this popularity has come a body of research that in the last ten years has validated the effectiveness of literature circles. A review of these studies, compiled by Chia-Hui Lin, shows that literature circles improve reading comprehension and create deeper understanding of literary texts (Brabham and Villaume 2000); build classroom community (King 2001); increase student accountability (Burns 1998); level the playing field between
genders (Johnson 2000); and provide a low-risk learning environment for English
language learners (Peralt-Nash and Dutch 2000) (1-6).

As an online environment, the *Brave New World* MOO created a virtual space
for peer-led discussions, which took place in both informal and formal ways.
Informal discussions of the novel occasionally occurred after school or in the evening,
as students logged on to the MOO from home. While after-hours players spent a
majority of their time socializing, goofing around, or working on their programming
skills, a few talked about the book in an evaluative way. As I reviewed the log each
morning, I was happy to see indications of this type of discussion. At nearly eleven at
night on the second evening of the MOO project, for example, two students
exchanged a brief conversation about the epigraph of the novel, a quotation from the
French writer Nicolas Berdiaeff:

I was pleased to see this sort of voluntary critical conversation; in fact, I
wanted all of my students to engage the text from a similar evaluative stance. To
achieve this goal, I used classroom time to hold more organized discussions in the
MOO. For the purpose of these more structured discussions, students were divided
into small groups and assigned specific topics. The first attempt at a MOO
discussion, however, was unsuccessful, though it undoubtedly testifies to the
creativity of my students. Instead of discussing the difference between the Savage
Reservation and the World State, as the assignment required, several students used
their recently acquired programming skills to create soma-firing weapons. They
roamed through the MOO, shooting other players and making meaningful
conversation impossible, and I spent most of this hour tracking down delinquents and
confiscating contraband. I had discovered one of the chief difficulties of using a
MOO in a classroom setting: controlling students.
After this initial experience, I created specific discussion rooms for each group and temporarily suspended player movement between rooms, which made controlling the students far easier. The assignment asked students to begin grappling with one of the key ideas of the novel: the difference between science and technology. The following conversation, excerpted from a log of a small group discussion, illustrates how students worked together to develop a deeper understanding of this issue and novel as a whole. For brevity and clarity, some non-essential material has been edited:

Leroux says, “is technology the result of science?”

Wilhelmina_Bowerman says, “sure, maybe technology is like the application of science”

Tito_Hoover says, “because anything new in science might be a change in the stability”

Bambino [to Tito_Hoover] “yeah but some people are stupid and do stupid experiments cuz they’re stupid”

Wilhelmina_Bowerman says, “technology is what we have at our fingertips to use as a result of science”

Tito_Hoover says, “that’s what Mond was trying to tell John”

Leroux [to Tito_Hoover] “no, that’s not necessarily true, cuz they could come up with something, without any knowledge of the consequences, and still go ahead and do it...it’s like testing the a-bomb.”

Tito_Hoover says, “but they experiment in a small controlled setting to see what happens, and usually it doesn’t work”

Wilhelmina_Bowerman says, “but still, the big question is why do we do those experiments, why do we want to know more about science?”

Wilhelmina_Bowerman says, “as Christians its part of the cultural mandate subduing the earth”

Leroux says, “subduing...that’s like keeping it under control, right?”

Tito_Hoover says, “i think that science is just the explanation of stuff and things, and how they work, tech. is taking that info and applying it to some real world principle”

Wilhelmina_Bowerman says, “subduing meaning to learn about it and take care of it, using it to its full potential”

Wilhelmina_Bowerman [to Tito_Hoover] “exactly. i agree.”

Bambino says, “so is science a public danger?”
Tito_Hoover says, “can be”

Leroux says, “yeah, we take science, and apply it to technology...technology is the result of what science teaches us”

Wilhelmina_Bowerman [to Bambino] “but not if it’s used correctly”

Bambino [to Wilhelmina_Bowerman] “but it’s not always used correctly, which makes it dangerous”

Wilhelmina_Bowerman [to Bambino] “right on”

Tito_Hoover [to Bambino] “you can torture someone to see what happens and call it science”

Leroux says, “ever hear of Frankenstein?”

Bambino says, “like the atomic bomb”

Wilhelmina_Bowerman says, “every good thing has potential for bad”

Wilhelmina_Bowerman says, “even science”

Bambino says, “mostly”

Wilhelmina_Bowerman [to Bambino] “what do you mean mostly?”

Bambino says, “not EVERY good thing, I can’t think of an example of the top of my head..but I’m sure there is an example”

Leroux says, “like FRANKENSTEIN! he took the science he discovered (creating life), without thinking of the consequences....and it turned against him”

Wilhelmina_Bowerman says, “but if there is sin in everything, then how can something be purely good?”

Tito_Hoover says, “I think that science is just the explanation of stuff and things, and how they work, tech. is taking that info and applying it to some real world principle”

Wilhelmina_Bowerman says, “I think tito is right. let’s move on”

Leroux O (great example, Leroux, right on the money...) (great example, Leroux, right on the money...)

Bambino says, “what about good itself, there’s not bad in good”

Wilhelmina_Bowerman says, “let’s talk about that quote”

Tito_Hoover says, “i don't get the whole part about the truth and menace thing though????”

Leroux says, “would somebody PLEASE give me a response to that? i'm beggin' ya!”

Bambino [to Leroux] “you are amazing. right on the money. Frankenstein is a perfect example”

Leroux says, “thank you!!”

Wilhelmina_Bowerman says, “the truth about how life was supposed to be
threatened the world state”

Tito Hoover says, “what about life and truth”

Wilhelmina Bowerman says, “tell me about truth”

Leroux says, “i can see that truth is a menace, at least to the World State, because if they knew the truth (that they’re conditioned, have no freedom, etc.) that would probably cause them to think independently, and a large amount of W.S citizens thinking independently of the system would definitely be a menace.”

Wilhelmina Bowerman says, “exactamundo!”

Tito Hoover says, “i no.... understand... :-( ”

Wilhelmina Bowerman says, “and science is a public danger in the world state because science has the potential to harm people”

Leroux says, “basically, if the W.S citizens knew the truth about them, they'd want to make change.(revolt) and that's dangerous.”

Bambino says, “but science DOES exist in the W.S.”

Bambino says, “i mean how do you think they created the system in the first place?”

Wilhelmina Bowerman says, “yes, but not like how we study chemistry, bio, and physics”

Wilhelmina Bowerman says, “even the upper castes don't know that stuff”

Bambino says, “well the world leaders know science, just no one else”

Wilhelmina Bowerman says, “they use the chemicals in their jobs but don't know what they are”

Bambino says, “well some aspects of science”

Wilhelmina Bowerman [to Bambino] “right, just the high up guys”

Leroux says, “if the wrong people had access to science, they could make a soma-antidote, or create individual, free-thinking people...”

Leroux says, “they could disrupt the system”

Bambino says, “OMG! it might be like the US! all hell would break loose!”

Wilhelmina Bowerman says, “right, they don't want them to have the knowledge. they only know general things”

Bambino : o o ( i hope they realize I was sarcastic there )

Leroux says, “if the knowledge wasn't so restricted, there would be no W.S.”

Wilhelmina Bowerman says, “the people are kept ignorant”

Tito Hoover says, “this whole thing makes me think of the matrix though...”

Tito Hoover says, "because towards the end they talk about how hard it will be to change other people because they are so part of the world that they
couldn't believe, and..."

Wilhelmina Bowerman [to Tito Hoover] “what are you talking about?”

Leroux [to Tito Hoover] “i don’t get your matrix connections...”

Silent through large parts of this conversation, Tito Hoover goes on to explain his connection between the movie *The Matrix* and *Brave New World*. By listening to his classmates converse, he has moved from confusion over the role of science (“I don’t get the whole part about the truth and menace,” he says) to his own formulation of meaning, making a subtle link between ignorance and political powerlessness. Arguably, Tito’s book-to-movie connection could be defined as inter-textual elaboration, a move made by readers operating on the connective, not the reflective dimension. But it is clear that Tito is thinking about *Brave New World* in a sophisticated, analytical, and reflective way. As the conversation moves forward, his classmates realize that he sees a link that they had not seen, and they praise him for his insight.

A more obvious example of a reflective move may be the question Bambino asks midway through the discussion. He claims that “science DOES exist in the World State,” and asks, “I mean how do you think they created the system in the first place?” Here, Bambino is interrogating the text and his classmates, trying to reconcile the fact that the World State discourages science while seeming to rely on it. Both Leroux and Wilhelmina understand this paradox and explain it to Bambino. Like Tito, Bambino has begun to formulate his own interpretation, working through a textual puzzle and arriving, with the help of others, at a solution. Additional questions could prompt Bambino and Tito to operate even more reflectively. Such questions might ask them to evaluate science fiction as a genre, or to critique the effectiveness of Huxley’s satire, or to discover what Huxley himself believed.
While Bambino and Tito are not the dominant voices in the above discussion, both get the chance to talk about the book, an opportunity they may not have had in a classroom discussion, where one or two students can take over. By allowing all to participate on equal footing, the MOO encouraged my students to recognize themselves as important contributors to meaning. Traditionally, the final meaning(s) of a literary text is determined hierarchically, with the author at the top, followed by literary scholars, the teacher, and the student, who is further ranked according to her skill in relation to classmates. For many of my students, the MOO leveled the playing field, making the production of meaning a more horizontal process. The student Leroux, for example, found it “helpful to be able to get a better understanding of the ideas of the chapter by learning other people’s opinions.” Wilhelmina Bowerman added that “it was nice not to be the only one willing to share ideas.”

The survey conducted after the project may explain why students felt free to contribute to the meaning-making process. Some students (53 percent) reportedly felt more comfortable speaking in the guise of their character. Almost all (93 percent) believed that MOO allowed all group members to voice their opinions, while all those polled characterized MOO discussions as “more balanced than a small group discussion in an ordinary classroom.” Finally, a vast majority (73 percent) believed that the absence of a teacher allowed conversations to move in a free and more balanced way. “I liked the discussions,” wrote one student. “I feel that the people in my group participated more freely in MOO discussions and had really good things to say that they probably wouldn’t have voiced in class.” Another added that he liked giving his opinions “with less resistance, especially because [the teacher] wasn’t right there to give me facial expressions or use a tone of voice to make me feel my opinion was wrong.”
Though I would hope that my classroom was already a safe setting for students to express their opinions, the *Brave New World* MOO turned my classroom into a more democratic place. My role shifted from teacher-as-source-of-knowledge to teacher-as-facilitator, lessening the “resistance” created by traditional learning hierarchies. And the majority of my students felt the MOO gave them a greater voice than a traditional classroom setting, particularly in the process of meaning-making. This perhaps is the final goal of reader-oriented literature instruction: to recognize that individual readers make important contributions to literary meaning.

**Conclusion**

This chapter has illustrated how the World Wide Web can support the goals of reader-oriented literature instruction. More specifically, I have described how a unique Web environment called a MOO can be aligned with an experiential model of reader response, showing how the *Brave New World* MOO helped my students to evoke and elaborate on the story world of the novel, make personal connections between the novel and their own lives, and discuss the novel critically in an egalitarian and collaborative way. In the end, this chapter is not meant to recommend that all secondary teachers use MOOs to teach literature, but rather to draw connections between the story world and the world of the Web.
CHAPTER IV

WEB AS ENCYCLOPEDIA: TEXT-ORIENTED READING
AND HEART OF DARKNESS

Rarely do high school teachers make their theoretical approaches explicit by naming them to their students. And even more rarely have multiple critical approaches been explicitly taught.

Deborah Appleman, Critical Encounters in High School English (2000)

Hence arose into ever clearer view a question that had been haunting our work from the beginning: How could we exploit digital tools to augment critical reflection both on and within bookspace?

Jerome McGann, Radiant Textuality (2001)

Introduction

The World Wide Web contains incredibly rich and ever-increasing resources on literature and literary scholarship. In recent years, the Web has become home to a wealth of electronic text archives, journals, databases, scholarly sites, and educational tools. Given these encyclopedic resources, the Web is an ideal place to practice the skills valued by traditional text-centered approaches to literature instruction. This chapter tells the story of the Heart of Darkness WebQuest, an online learning tool that I used to teach my high school students about critical literary theory and close textual analysis.
On a Friday in late March of 2002, my students are once again in the computer lab, where they have spent the past three days working on the *Heart of Darkness* WebQuest. Today, they are working on the culminating task required by the WebQuest: writing short interpretative responses on an electronic message board, also known as an asynchronous threaded discussion. By this point, each student has written three or four 150-200 word responses to select passages from *Heart of Darkness*, which the class finished reading during the previous week. The threaded discussion format allows students to read and respond to what their classmates have written, giving this particular writing assignment a communal quality.

What makes these student responses unique, however, is their content. The WebQuest required each student to select one of five schools of literary criticism for research: post-colonial, psychoanalytic, feminist, deconstructive, and reader-response theory. Using Web resources to gather information, students have developed a basic understanding of a particular critical approach, and now are applying that perspective to passages I have excerpted from the novel. Published in 1902, *Heart of Darkness* tells the story of Charlie Marlow, a veteran seaman who captains a steamship up the Congo River in search of ivory and a renegade ivory trader named Kurtz. The passages from the novel, as will be explained more fully below, are taken in sequence from key points in Marlow's journey up the Congo—the docks on the Thames, Outer Station, Central Station, Inner Station, Sepulchral City—so that in encountering and applying a critical perspective to each successive excerpt, students parallel Marlow in a meaning-making journey.
Anne has researched feminist criticism, and is reading, thinking, and writing about each passage from a feminist perspective. Today, Anne is writing about a passage taken from Marlow’s description of the foreman of Central Station:

Once again to break this down to the feminist view I am going to look at one specific line that says all. Marlow points out the fact that the foreman had “prospered in the new locality, for his beard hung down to his waist. He was a widower with six young children (he had left them in charge of a sister of his to come out there), and the passion of his life was pigeon-flying.” A closer look at this line says that in order for a man to fulfill his dreams and goals of success he has to leave the children with a woman he trusts, and then he can go out and search for his destiny, and become a great hero. The man does not consider the fact that he did leave six children with his sister, and how much of a task that is. What if she had other children? What if his sister had a dream of doing something, but with him leaving his children, she couldn’t?

In her reading of this particular passage, Anne has made two notable accomplishments. First, she has contextualized *Heart of Darkness* within a framework of knowledge, namely a feminist perspective. Using the resources available on the Web and the guiding scaffolding of the *Heart of Darkness* WebQuest, Anne has learned about feminist criticism. Her reading illustrates that she understands one of the main goals of feminist literary scholarship: to scrutinize and critique the representation of women in canonical texts. In her *Congo Diary*—a notebook each student kept to document his or her research process—Anne wrote that “A [feminist] critic might ask things such as how is the woman in the book looked at . . . What kind of language is used to describe the woman, and how does she act?” In this case, Anne finds fault with Marlow’s seemingly incidental description of the widower, who has abandoned his children and stymied the dreams of his sister in order to seek riches in the Congo.

At the same time, it is clear that Anne has looked closely at the text itself, narrowing her focus to two sentences from a much longer passage. She is reading
analytically, weighing the importance of details, examining what may have been excluded and considering the significance of those exclusions. In short, she is giving this particular passage a close reading, though not exactly the sort advocated by the New Critics. While New Critical explication does not attend to extra-textual information, Anne is using a wealth of outside information—all drawn from the World Wide Web—to focus more intently on the text itself.

Other students in the class are engaged in a similar process: Ashley and Lucia are writing feminist critiques of the novel; Michele and Chris are working on deconstructing binary oppositions in the text; Brian and Trevor are pursuing a psychoanalytical approach; Angela is reconsidering the text from a post-colonial perspective; and George and Dabney have chosen to identify themselves as reader-response critics. All of these students are widening their perspectives by learning about different critical stances, then narrowing their perspectives by re-reading the text with greater attention to detail. They are seeing the text through a new critical lens, enabled by the encyclopedic resources of the World Wide Web.

In essence, this is the aim of the Heart of Darkness WebQuest. It makes use of thirty-five Web resources, each devoted to Joseph Conrad or a particular type of literary criticism and containing multiple links to additional sites. These resources were gleaned from thousands of alternatives: a Google search of “Joseph Conrad and Heart of Darkness,” for example, produces 42,800 hits, while “feminist literary criticism” yields 6,200. The Heart of Darkness WebQuest narrowed this overwhelming number of resources, making Web research more manageable and efficient for my students. At the same time, it provided a specific inquiry-based task to guide their use of Web resources. In achieving these two objectives, the Heart of Darkness WebQuest was in keeping with the original WebQuest concept, which now
warrants further exploration.

The WebQuest: A Brief History

According to a recent *Newsweek* article, the search engine Google is used over 200 million times per day to search over 4-6 billion Web pages, images, and threaded-discussion postings (Levy 40). Only five years old, Google is a relatively new search engine, but in the last two years it has come to dominate Web searches, today claiming nearly 40 percent of all Internet queries (Sharma par. 1). Most attribute Google’s triumph to its smart search technology, which produces more relevant results than competing engines. Unlike Yahoo or MSN, Google ranks pages according to the number of links other pages have made to them, a sort of electronic popularity contest that routinely yields better search results for users (Karr par. 6).

The success of Google, as well as renewed competition from rivals eager to develop their own smart search technology, points to a central truth about the World Wide Web: without organizational tools, it is an impossibly vast resource, nearly as incomprehensible and daunting as the Library of Babel envisioned by Borges. Or to use a metaphor suggested by Bob Davis, the former head of Lycos, “The Internet without search is like a cruise missile without a guidance system” (qtd. in Levy 2).

The concept of the WebQuest, first developed by Bernie Dodge in 1995 at San Diego State University, is founded on this same principle: the Web needs a guidance system. In the early days of the commercial World Wide Web, Dodge and his graduate student Tom March were among the first to recognize that tapping the enormous educational potential of the Web depended on the harnessing of its vast resources. As early as 1998, the public Web consisted of at least 1.5 million unique sites, according to the Online Computer Library Center (O’Neill par. 15). Among...
these pages were valuable educational resources, including lessons and online tutorials, enrichment activities, tools, informational reference books, supplemental resources, and projects (March, “What’s on the Web?” pars. 1-20). The integration of these resources into an educational curriculum, however, was impeded by two specific problems.

First, the quality resources that did exist were hard to locate, and moreover, the Web makes no pretense of objectivity, is not organized according to any known hierarchy, has no commitment to fixed content, and allows anyone to publish. As a result, educators were hesitant to use the Web in their own classrooms, since doing so meant risking encounters with online material that lacks credibility, promotes hatred or ignorance, bears inappropriate material for the classroom, or simply disseminates misinformation. As former English teacher Hilvek Firek observes,

. . . type in the word Holocaust and you’ll be sent to all kinds of locations. True, you’ll find the United States Holocaust Memorial Museum a site filled with educational resources, exhibits, photographs, first-person accounts, and more. But you’ll also be pointed to sites that claim the Holocaust never existed, or worse yet, sites that spew out hatred and anti-Semitism. (72)

The second problem, general apprehension about how to use the Web, was equally daunting for teachers during the early days of the Web and remains an issue today. In Dodge’s opinion, there was “no agreed upon terminology for the kinds of instructional activities [instructors] are creating for themselves, and the field would benefit from having a few clear categories to describe the new forms of learning environments now opening up to us.” (“Some Thoughts” par. 1).

Dodge and March sought to address both issues by developing the WebQuest, an online learning activity that would minimize harmful encounters like those described by Firek, while tapping into the richness of the Web and creating a specific instructional framework for using technology. As defined by Dodge, a WebQuest is

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“an inquiry-oriented activity in which most of all of the information used by learners is drawn from the Web. WebQuests are designed to use learners’ time well, to focus on using information rather than looking for it, and to support learners’ thinking at the levels of analysis, synthesis, and evaluation” (“Some Thoughts” pars.1-2). The WebQuest accomplishes these objectives in two ways. First, it partly reallocates the task of Web research from the student to the teacher, thereby reducing aimless surfing and preventing run-ins with inappropriate material. Second, the infrastructure of the WebQuest scaffolds the learning process, providing an instructional framework for using the Web.

As shown in Figure 6, the opening screen of my Heart of Darkness WebQuest, a WebQuest typically follows six steps: an introduction, a task, a process, a list of online resources, an evaluation, and a conclusion. Based on a constructivist theory of learning, this scaffolding is meant to guide learners step-by-step through an individually meaningful, open-ended inquiry, while supplying them with a larger schema for problem solving. As March writes,

In order to engage students in higher level cognition, WebQuests use scaffolding or prompting which has been shown to facilitate more advanced thinking. In other words, by breaking the task into meaningful ‘chunks’ and asking students to undertake specific sub-tasks, a WebQuest can step them through the kind of thinking process that more expert learners would typically use. (“Why WebQuests” par. 13)

The first of these structural attributes, the introduction, hooks the learner by establishing the situation, filling in background detail, and most importantly, posing an engaging question (Firek 75). Often, the introduction asks students to make an imaginative leap. The introduction to the Heart of Darkness WebQuest, for example, informs readers that they will be following Marlow into the heart of the Congo, retracing his path as they attempt to understand the mysterious story that he tells.
The WebQuest Page archives hundreds of additional examples, many of which have compelling introductions: the *Atlantis* WebQuest tells students they are “about to embark upon an expedition to uncover the truth about Atlantis;” the *Salem Witchcraft* WebQuest asks students to travel back in time to retry the men and women accused of witchcraft; *the Lord of the Flies* WebQuest notifies students that their

![Heart of Darkness webquest](image)

Since its publication in 1899, *Heart of Darkness* has been one of the most widely read books written in English. It has also been one of the most analyzed: scores of literary critics, ranging from feminists to Marxists to New Critics, have all tried to construct their own meanings from the pages of the book.

The novel does seem to invite a wide variety of interpretations. Its narrator even claims the meaning of the story “was not inside like a kernel but outside, enveloping the tale which brought it out only as a glow brings out a haze, in the likeness of one of these misty halos that sometimes are made visible by the spectral illumination of moonshine.”

After reading *Heart of Darkness*, you may feel that the meaning of the story is very hazy. How do you go about making sense of a story as obscure as *Heart of Darkness*?

This WebQuest may be of some help. It will help you learn just how some critics have come up with their interpretations of *Heart of Darkness* and encourage you to develop your own critical stance on the book. On your journey toward meaning, you will follow Marlow up the Congo River, shedding light on the heart of darkness as you proceed, finally arriving at a better understanding of this elusive book.

Figure 6. Introduction to *Heart of Darkness* WebQuest

survival on a small island depends on their creation of effective laws (Dodge, “Matrix of Examples.”).

The second critical attribute of the WebQuest, the task, describes the objective of the WebQuest in general terms, often developing the scenario, extending the metaphor, or rephrasing the central question posed in the introduction. Dodge

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contends that the task is the single-most important element of the WebQuest, since it articulates how both the teacher and the learner are to use the Web. For the teacher, designing a task involves drawing connections between familiar instructional strategies and Web resources, a process that clarifies his or her own goals. On the WebQuest Page, Dodge offers a task taxonomy that links common instructional objectives—such as requiring students to retell a story, gather and compile information, solve a mystery, become a journalistic, design a project, create a product, or build a consensus—to the resources of the Web. At the same time, the task provides the student with a clear goal to achieve (“WebQuest Taskonomy” 1-2).

This task is often differentiated, requiring individuals to complete separate subtasks, as part of a collaborative group or on their own. The Salem Witchcraft WebQuest, for example, requires each member of a group to play a different role, ranging from a judge, to an accuser, to an accused. Likewise, the Heart of Darkness WebQuest, allows students to become a particular type of literary critic. Dodge notes that differentiated tasks can motivate students, particularly if they are given exciting roles to play (“Some Thoughts” par. 7); Sara Kajder maintains that differentiated tasks help students to develop specific skills while catering to their individual needs (83).

The next critical attribute of the WebQuest is the process, essentially a more detailed description of the task. As Kajder explains, the process page “breaks down the elements of the assignment, explaining the various steps and deadlines built into the assignment” (84). As with the task, the process serves to reinforce how the Web should be used, by providing step-by-step instructions for achieving the task. Depending on the nature of task, the process might detail how students should gather, evaluate, and organization information; transform information into a new form; or
create a new product to convey what they have learned. The *Heart of Darkness* WebQuest describes what steps students must take to learn about a particular school of literary criticism and apply that perspective to select passages from the novel.

One of the most essential elements of the WebQuest is the resource page. This page includes an appropriate number of teacher-selected links that students use to achieve the task. These resources, Dodge points out, must be relevant to the task, readable and interesting, updated and accurate, and, ideally, taken from sources that students might not typically encounter in school, though print materials may be included (“Five Rules” 6). Kajder favors resources that are drawn from the deep Web, the ever-growing portion of the Web not indexed by traditional search engines. Since search engines—even Google—can only search static pages linked to other static pages, a large portion of Web remains essentially invisible to them. The deep Web is composed of searchable databases, which themselves index all matter of corporate, government, and scholarly documents, including a wide range of periodicals, images, sound and movie clips, as well a wealth of other digitally archived material, such as job listings or flight schedules.

To cite two examples: A Google search for a particular Blake engraving—say a lamb—will not yield results from the William Blake Archive, since that site relies on its own searchable database. Nor will a Google search for Edgar Allen Poe produce critical articles written by Poe scholars: these are indexed elsewhere, most likely at an online database such as LION (Literature Online) or better still, the MLA Bibliography, through which many articles are available in full text. By some estimates, search engines only crawl 1 percent of the Web, leaving the vast regions of the deep Web uncharted. Search engines are working to improve their technology: the soon-to-be released engine Dipsie, for example, will be able to negotiate its way
through restrictive database gateways to access deeper information (Wright 1-4). But for now, the task of locating quality resources still falls to the user. In an educational setting, this responsibility lies with either the student, who must possess the critical skills and maturity to locate appropriate Web resources, or as Dodge and March would have it, with the teacher, who can pre-select deep Web resources by searching databases to which the school subscribes.

The last two attributes of the WebQuest are the evaluation and the conclusion. The evaluation describes the assessment procedures the teacher will use. Often, the teacher may post an evaluative rubric, which ideally assesses both the process and the product of the WebQuest. If the WebQuest asked students to create a time capsule, for example, an effective rubric might evaluate how well the individual or group followed the steps in creating the time capsule as well as the quality of the product itself. Again, the goal is to provide structure for both the learner and the teacher, by explicitly connecting the final means of assessment to the stated task. Lastly, the conclusion of the WebQuest “brings closure to the quest by reminding the learners about what they’ve learned, and perhaps encourages them to extend the experience into other domains,” according to Dodge (“Some Thoughts” par. 6).

As a teaching tool, the WebQuest has become increasingly popular. With the rapid growth of the Internet, educators constantly search for a simple but sound way to integrate it into their own curriculums. There are thousands of WebQuests in existence today, though as March observes, not all meet the criteria he and Dodge originally established. To his disappointment, the term WebQuest has come to signify any research project involving the Web, even if the task lacks purposeful constructivist scaffolding and teacher-selected resources. Still, the WebQuest Page links to hundreds of quality WebQuests in multiple disciplines, as does March’s page,
BestWebquests.com ("About BestWebQuests" pars. 1-2). Additionally, sites such as Filamentality provide pre-existing WebQuest templates, allowing users with no design experience to create WebQuests. WebQuests, in short, have become part a mode of access to the electronic encyclopedia of the World Wide Web.

Some WebQuests may be considered literary WebQuests, defined by Berhane Teclehaimanot and Annette Lamb as a WebQuest that "centers the experience on reading by using books as the focal point for activities. Tasks might involve . . . exploration of the theme, characters, plot, or setting of the book being studied" (8). The WebQuest Matrix of Examples lists 173 English language arts WebQuests in the top category alone, with 30 of these specifically marked as literary WebQuests. Among the examples of literary WebQuests are those based on The Great Gatsby, the Odyssey, Their Eyes Were Watching God, and my own Heart of Darkness WebQuest. Perhaps based on this precedent, the Heart of Darkness WebQuest has also been listed and even rated at multiple additional sites, including English Online (http://english.unitecnology.ac.nz/resources/), Web English Teacher (http://www.Webenglish teacher.com), and BestWebquests.com.

The WebQuest Page further classifies literary WebQuests into six subcategories: Behind the Book, Beyond the Book, Genre Analysis, Literary Analysis, Literary Judgment, and Relating Literature to Life. The Behind the Book category, featuring WebQuests that "guide students to learn more about the setting and characters in the book," includes a WebQuest entitled F. Scott Fitzgerald and the 1920s. Designed by Margaret Hagemeister, an English teacher at Natick High School in Massachusetts, this WebQuest asks students to plan a Jazz Age party by learning more about the 1920s. Collaborating in small groups, students choose individual roles—caterer, entertainment coordinator, fashion consultant, and guest coordinator—
then research their field using Web resources. The guest coordinator, for example, might follow a link to the Jazz Age Biographies site and decide to invite Paul Whiteman to the party. Eventually, students present their party plan to the remainder of the class, which as a whole develops a more informed perspective on the 1920s.

Other literary WebQuests included at the WebQuest Page are similar in that they ask students to gather extra-textual information in order to gain perspective on particularly literary works. This information is often historical, as in the above example; biographical, as in the Edgar Allen Poe: Father of Horror WebQuest, which requires students to draw connections between Poe’s life and his works; literary-historical, as in the Wuthering Heights WebQuest, which asks students to recast the novel as a drama set in the twentieth century; or even cultural, as in the Things Fall Apart WebQuest, which ask students to explore Igbo tribal life. The assumption behind many of these exemplary WebQuests is that a better understanding of these elements will lead to a better understanding of the literary text, as characters, themes, author, and other literary elements are elucidated by contextual material drawn from the Web. The Heart of Darkness WebQuest is built on a similar premise—that external information, drawn from the Web, can lead to more meaningful interpretations of the text. In this case, the external information concerned five critical perspectives, perspectives that I hoped would help students read the text closely and critically.

Critical Theory in the Secondary Literature Curriculum

Like Brave New World, Heart of Darkness had been part of my senior literature curriculum for a few years prior to the beginning of this study. Though brief, the novel is extraordinarily dense and difficult, complicated by Conrad’s
abstract style; his use of a frame narrative structure that relies on an extended
flashback, and his narrator, Marlow, who is both evasive and ambivalent, as well as
given to moody bursts of metaphysical speculation. Despite these potential barriers, it
consistently ranks among the most taught works in upper-track secondary literature
curriculums (Applebee, *Literature in the Secondary School* 70). At least a portion of
my general-level students found the text inaccessible, despite my well-intended and
frequent interventions. I routinely used eight to nine worksheets to teach the 72 page
novel (Dover Thrift edition). Some of these asked students to explicate particular
quotes, others required literature circle-like collaborative groups, and still others
provided information on particular elements of the text.

Teaching the novel this way was not an outright failure, but definitely not an
unqualified success either. One student admitted she had read for pages without
having the faintest idea of what had occurred, a candid confession that no doubt
reflected the experience of many students. Cris Tovani describes this sort of reading
as *fake-reading*:

> I started to fake read in sixth grade and continued to do so for the next
twenty years. In high school, I fooled everyone by attending classes,
reading first and last chapters, skimming through Cliffs Notes, and
Making Bs or better on essays and exams . . . I read aloud beautifully
and could decode even the most difficult words. The problem surfaced
when I had to use, remember, or retell what I had read. I couldn’t do
it. I expected that meaning would arrive if I could pronounce all the
words. Unfortunately, that didn’t happen. (4)

I suspected that at least some of my students, and perhaps most of them, were fake
reading *Heart of Darkness*. Guided by my worksheets and my lecture notes, these
students were passing the test and writing adequate essays, but never really
interrogating the text, taking it apart piece by piece, examining its working parts, and
reassembling it with a better understanding of the whole.
I wanted my students to read *Heart of Darkness* with the scrutiny that Robert Penn Warren and Cleanth Brooks advocate—with an eye that sees "fiction is a created thing . . . [and] the general fact of its being shaped and the particular way of the shaping have significance" (4). At the same time, I did not want to subscribe, either explicitly or implicitly, to all of the assumptions of the New Critical orientation. My inquiry began, then, with this question: How might I encourage students to read *Heart of Darkness* in this careful and critical manner?

One answer was suggested by the work of Lisa Schade. Schade, a former high school English teacher, used literary criticism to teach critical reading to secondary students. Reasoning that her twelfth-grade world literature students "would become better critical thinkers if they understood the methodology of literary evaluation," Schade introduced them to Jungian/archetypal criticism, formalism, reader-response criticism, socio-historic criticism, biographical criticism, and philosophical criticism, the last category broadly defined as criticism written from a particular philosophical standpoint ("Demystifying the Text" 26). Schade supplied her students with the essentials of each theoretical stance, asked them to apply that perspective to a given work or works, and as students became familiar with more theoretical schools, prompted them to critically evaluate each theoretical approach, chiefly by applying numerous critical perspectives to the same work. Eventually, her students were fluent enough in critical vocabulary to discuss texts as diverse as the *Hobbit* and *Hamlet*, from theoretical viewpoints as divergent as Marxism and Jungian archetypal criticism, even deciding which critical approach was the best interpretative tool for each work.

Schade saw a number of benefits result from her use of critical theory. First and most significantly, students learned *how* to find meaning in a literary text. In this
most basic sense, learning different critical approaches showed students what to look for during reading, making the sometimes mysterious process of interpretation far more tangible and real. Secondly, Schade discovered that critical theory shifted her own role as a teacher: her time was spent teaching interpretative frameworks rather than interpretations. “With critical theory as the emphasis,” she writes, “students could read different books within the same class while my responsibility was to guide lessons in interpretive method, not in textual detail” (“How Does it Mean?” 203).

Teaching interpretative frameworks gave students freedom to generate their own responses, but also held them accountable for following the guidelines of the critical approach they chose. For Schade, evaluating student analysis of literature became easier as a result, since the quality of a response could be judged by how well the student had followed a particular critical orientation rather than by a more subjective assessment of its validity. In general, Schade found her students were writing more in-depth and more critically than they had prior to infusing literary criticism into the curriculum. At the same time, they supplied more constructive criticism to their peers, using the lenses provided by critical theory. This made for better peer revision and more profound large group discussion. In this setting, Schade found herself learning along with her students, as “theory provided a common language for both myself and my students to articulate ideas” (“How Does it Mean?” 204-205).

Finally, Schade discovered that critical theory had meaning beyond the literature classroom. Her students, she noted, were applying literary theory to other aspects of their lives, developing “an ideological framework for understanding the world around them.” Students began seeing the popular media with a more critical eye: one representative student, reports Schade, found several archetypes in the movie
The Fugitive; others made similar connections between literary theory and television, history, society, and the events of their own lives ("How Does it Mean?" 206-207).

Even with Schade’s compelling testimony to the power of literary theory in the secondary classroom, I was still hesitant to try literary criticism with my own students and Heart of Darkness. My own experiences with theory were mostly negative: a one-time doctoral student in literature studies, I recalled being frustrated by its deliberately obscure language, highly specialized subject matter, and nitpicking practitioners who seemed endlessly entangled in debates of little practical value. When it came to literary theory, I ranked myself among those teachers described by Deborah Appleman:

High school literature teachers often feel distant and detached from recent developments in literary theory. Literature teachers find it difficult to see, at least initially, how contemporary literary theory can inform their daily practice. They are already overwhelmed as they juggle curricular concerns as well as the competing literacy skills and needs of their increasingly diverse student body. Students and teachers alike find it hard to believe that something as abstract and impractical as literary theory could be relevant to their lives, both in and out of the classroom. (2)

Like Schade, Appleman makes a convincing argument for using literary theory in the secondary classroom. In Critical Encounters in High School English: Teaching Literary Theory to Adolescents (2000), Appleman contends that integrating literary theory into the curriculum will “better prepare adolescent readers to respond reflectively and analytically to literary texts, both canonical and multicultural,” as well as provide “a useful way to interpret... their lives—both in and out of school” (2). While their arguments are very similar, Schade emphasizes literary theory as a means to an end—an interpretative framework that helps students make sense of literary texts—while Appleman places more value on the process of taking multiple perspectives. She describes this process as “learning to inhabit multiple ways of
knowing,” or “attending to multiplicity,” and maintains that reading texts through differing critical lenses fosters not only a better understanding of those texts, but also a greater awareness of human diversity and culture at large (3-4).

In keeping with this emphasis, Appleman recommends setting the stage for literary theory with activities designed to show students the importance of multiple perspectives. Relying on classroom vignettes from several secondary English teachers, Appleman illustrates how the idea of multiplicity can be introduced to students through a variety of assignments, such as rewriting a classic nursery rhyme from a new perspective, retelling a short story in the voice of a minor character, or even listening carefully as a poem is read aloud with differing inflections and emphases. From these activities, Appleman moves to specific schools of literary theory, namely reader-response theory, Marxist theory, feminist theory, and deconstruction.

Appleman’s method of introducing students to actual literary theory echoes Schade’s, though Appleman did not have the benefit of her own high school classroom. Instead, she worked with cooperating secondary teachers, helping to team-teach ideas and work-shopping with students. Like Schade, Appleman first explained the key ideas of a critical orientation, simplifying even deconstruction into a digestible form. Though the next step varied slightly with different critical approaches, students were typically guided through an exercise in applying the critical perspective to a work of literature they were studying. From here, they practiced on their own, applying the newly learned perspective to the same text or additional materials. In most cases, students then reflected on the strengths and weaknesses of the critical theory, frequently by comparing it to other theoretical stances. Ideally, since Appleman contends that “the ultimate pedagogical goal of teaching with theory
is to facilitate student’s ability to understand different perspectives,” students are given the opportunity to apply multiple critical lenses to the same text (141).

In one particular classroom Appleman describes, an A.P. literature teacher taught his students how to read *Hamlet* from a Marxist perspective. The instructor, Michael, begins by brainstorming with his students about power relationships within *Hamlet*. They supply a number of ideas, such as the power a King has to declare war, the power of one person to lord over another, and the power a property-owner has over a peasant. From here, Michael distributes a handout outlining the basics of Marxism—stages of history, dialectical materialism, class struggle, class consciousness—and then suggests that Marxism can be used to interpret literary texts. Over the next few days, students then engage in a number of activities, such as ranking the characters on a social ladder, finding uneven distribution of power among characters, evaluating their own positions in the socioeconomic hierarchy, and finding a character who best represents their own social standing. Michael then asks students to reconsider *Hamlet*, knowing what they do about Marxist literary theory. In response, students ask significant and compelling questions about the text, based on their new critical knowledge: “Why does Hamlet feel he can dismiss the lives of Rosencrantz and Guildenstern?” asks one student. “Why is it that the gravediggers seem to know more about life than anyone?” asks another. And a final student, “Do women have any real power—even in the highest classes?” (63-71).

These were the sort of critical inquiries I wanted my own students to make about *Heart of Darkness*. Where does Marlow really stand on colonialism? Is *Heart of Darkness* a racist text, as Chinua Achebe insists? What might *Heart of Darkness* say about the human psyche under duress? Schade and Appleman had illustrated how literary theory helps students ask these kinds of questions, by equipping them with
new interpretative tools that allow them to dig ever deeper into texts. My initial inquiry—How can I compel my students to read *Heart of Darkness* more critically?—had found at least a hypothesis in literary theory. Designing the experiment was equally important. Which literary theories would help my students engage with *Heart of Darkness* on a critical level?

To answer this question, I first reviewed my own critical assumptions in teaching the text. For a number of reasons, I typically approached *Heart of Darkness* from a post-colonial perspective. First and most essentially, the tale Marlow tells is made possible only by Belgium’s interest in the Congo: the setting, plot, and character development of the novel all depend on this historic reality. In addition, colonialism provides a context for understanding Marlow. Though Marlow deplores the false pretenses of colonialism and brutalizes its advocates, his perspective is nevertheless permeated by colonial prejudices, and these prejudices are revealed from time to time as his narrative unfolds. For some, like Chinua Achebe, Marlow’s ambivalence casts the purpose of the entire novel into question. The link between Achebe and Conrad was the final reason I usually approached the novel from a post-colonial perspective. During their junior year, my students had read *Things Fall Apart*, described by its author as an African answer to *Heart of Darkness*. Taking a post-colonial stance on *Heart of Darkness* was one way of connecting the curriculums of two literature classes.

I chose the remaining four critical approaches after discovering an excellent resource, Bedford Books’ *Heart of Darkness: A Case Study in Contemporary Criticism* (1989). Like others in the series, the *Heart of Darkness* case study includes both the primary text and a number of critical articles, each written from a particular theoretical position. The series is intended to familiarize students with literary theory,

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so each critical article is accompanied by a brief explanation of the critical perspective it illustrates. The *Heart of Darkness* case study offers articles from five influential theoretical perspectives: psychoanalytic, feminist, deconstructive, reader-response, and new historicist. In addition, the text includes a brief history of the critical reception of the novel, from its initial publication in 1899 to the late 1980s. Of the five critical perspectives offered, I chose four for my own classroom, replacing new historicism with post-colonial theory.

While the discovery of the Bedford series was important, I also choose each of the critical approaches based on my own previous reading and teaching of the novel. As in the case of post-colonial theory, my goal in selecting critical approaches was to make some of my own critical assumptions more explicit. In the past, I had pushed a psychoanalytical approach to understanding the characters of the novel, frequently asking students to examine the motives of both Marlow and Kurtz. I had even likened Kurtz to Jim Jones—the charismatic preacher who killed over 800 of his followers in Guyana—requiring students in one assignment to draw connections between the two figures. Their responses reveal my own implicit tendency toward psychoanalytical criticism: “Jones and Kurtz share many of the same personality traits,” wrote one student. “Both have very unpredictable emotions. Kurtz is so erratic that he threatens to kill the Russian fool who had helped him to recover from two sicknesses. Jones is said to have constant emotional explosions and tirades, and he often lashed out at his wife.”

At the same time, I had encouraged students to look more carefully at the female characters in the novel. Though they are few and far between, they nevertheless play important roles in the story. Marlow portrays his aunt, for example, as hopelessly naïve, sentimental, and incapable of functioning in the world of men. I
reminded students, however, that his aunt does manage to secure him a position with the Belgian trading company, and that her powerful connections influence the way Marlow is received in the Congo. We also paid close attention to the way Marlow describes both the savage queen and Kurtz' Intended, two female characters that seem to play symbolic roles in the narrative. The seeds for a potential feminist interpretation, in other words, were already planted.

I had not pursued a deliberately deconstructive approach with my class, but again, there were glimpses of this critical orientation, particularly in our discussion of Conrad’s elusive style. Conrad, I had warned them, has a very unique and challenging style: oblique in approach, his prose favors Latinate abstract nouns, adjectives with negative prefixes, and deeply embedded syntax. In classroom discussion, we talked about the way Conrad uses his style to say what things are not, rather than what they are, as in this sentence: “It was the stillness of an implacable force brooding over an inscrutable intention.” One assignment required students to “de-Conrad” select passages by replacing his evasive words—implacable, inscrutable—with more concrete and tangible language. By attempting to fix or arrest what Conrad had meant to say, students arguably learned one of the main lessons of deconstruction: language is evasive and endlessly referential.

Finally, I hoped that my classroom had allowed my students to express their insights about their reading experiences in a way that adhered to, however loosely, the principles of reader-response theory. Arthur Applebee notes that teachers often rely on reader-response techniques to engage their students (“Background for Reform” 8), and my classroom was no exception. In one large group discussion I recorded, for example, I asked students to talk about what Kurtz’ famous last words, “The Horror! The Horror!” might signify to them. One student believed the horror was the
recognition of human depravity, or that “it takes no effort whatsoever to commit evil,”
and that “fundamentally, human beings are pretty ugly,” observations that resonated
with his own Calvinistic worldview. Others argued more practically, suggesting that
not just anyone goes around decapitating people—the horror was the guilt Kurtz felt
for committing such atrocities. Still others relied on psychological terms, maintaining
that Kurtz was a psychopath who let his base appetites overwhelm him.

Overall then, my teaching of Heart of Darkness already depended on aspects
of various critical theories, including post-colonial, psychoanalytical, feminist,
deconstructive, and reader-response criticism. My next task was to find a way of
making these implicit theoretical assumptions more explicit to my students, and by so
naming them, teach my students critical reading skills. The literary WebQuest was
the ideal vehicle for achieving this goal in two ways: first, it marshaled the
encyclopedic resources of the World Wide Web, resources that in their diversity
underscored the importance of multiple perspectives; and second, it gave my students
a framework that guided their inquiry into and application of critical theory.

Critical Theory on the Web: Resources for the Heart of Darkness WebQuest

In “Five Rules for Writing a Great WebQuest,” Dodge argues that quality
resources distinguish a great WebQuest from the host of mediocre ones that populate
the Web today (1). Dodge’s simple maxim—find great sites—may also serve as a
litmus test for a WebQuest: if no such sites exist, then a WebQuest is hard to justify.
In thinking about the Heart of Darkness WebQuest, then, I needed to answer some
essential questions: Why use the Web? Does the Web offer resources that are
otherwise unavailable to students? More specifically, how is teaching literary theory
improved by the resources of the World Wide Web? After all, I could easily teach
literary theory in the traditional classroom, as Schade and Appleman had proven so brilliantly. I even had an excellent text resource in the Bedford case study.

These questions may be answered in a number of ways, both theoretical and practical. One theoretical answer is supplied by Terry Eagleton in *The Function of Criticism* (1984). Eagleton argues that “criticism today lacks all substantive social function. It is either part of the public relations branch of the literary industry, or a matter wholly internal to the academies” (i). For Eagleton, the solution to the current irrelevance of literary criticism is to return literary discourse to the public sphere, the realm it occupied prior to eighteenth-century enlightenment. In this public sphere, best typified by the coffee house, the amateur critic still held sway. As class distinctions and the cult of the individual grew, however, literary criticism became increasingly elitist, bourgeois, and institutionalized. The twentieth century, Eagleton argues, saw the ultimate form of institutionalized literary criticism: deconstruction, which Eagleton finds “bereft of such a raison d’être. It engages at no significant point with any substantive social interest, and as a form of discourse is entirely self-validating and self-perpetuating” (108).

Eagleton argues that the survival of contemporary literary criticism depends on its return to the public sphere. The World Wide Web provides such a public sphere, though its detractors may argue that the digital divide perpetuates a new sort of class struggle between the technological haves and have-nots. Still, the Web can breathe populist life into otherwise stodgy critical discourse: one only need visit South Oregon University’s page entitled “Using Deconstruction to Astonish Friends and Confound Enemies In Two Easy Steps” to realize the validity of this claim (http://www.sou.edu/English/ Hedges/Sodashop/RCenter/Theory/Howto/decon.htm). Many such sites exist, with the purposes of explaining theory in accessible language.
and putting it to use toward public ends. Of course, the WebQuest was not intended to rescue literary criticism from the academy; rather, I hoped that learning theory online would liven up a potentially difficult topic.

Jerome McGann may provide another insight that helps us to understand the power of the Web for literary study. As we have seen in Chapter Two, McGann argues that the digital medium has potential to change literary scholarship as we know it. For McGann, this change will be brought about through the creation of electronic text archives. These archives, like his Rossetti Archive, store literary texts, images, and other documents in a decentralized and hypertextual format. Included in the electronic archive are both primary and secondary sources, so that in theory, the electronic critical edition of a particular work may hyperlink to multiple critical analyses of that work, as well as to every existing manuscript and published edition. In such archives, the distinction between primary and secondary sources becomes blurred, so as McGann suggests, “when one goes to read a poetical work, no documentary state of the work is privileged over the others” (73). In a small way, the Heart of Darkness WebQuest acts as an electronic text archive: it links to the full text of the novel, excerpts of various critical articles, biographical information on Conrad, and of course, information on different critical perspectives. As such, the WebQuest may model the literary scholarship of the future: students switch from the primary text, to secondary sources, to their own critical interpretations in a fluid manner, their movements made possible only by the digital medium.

Of course, there are more practical reasons to study literary theory via the World Wide Web. The foremost of these is simply the incredible diversity of resources on the Web. This diversity is illustrated by briefly examining the resources included on the post-colonial page of the Heart of Darkness WebQuest. As shown in
Figure 7, the post-colonial page provides links to eight unique sites: Emory University’s *Introduction to Post-Colonial Theory; History of the Congo* from CountryReports.org; *Post-Colonial Literature and Africa* at the University of Texas at Dallas; *Reforming the Heart of Darkness*; Brown University’s *Post-Colonial Web*; *Heart of Darkness: An African Perspective* at the University of St. Francis; *Post-Colonial Theory: Some Issues* (syllabus) at Brock University; and lastly, the full text of “An Image of Africa: Racism in Conrad’s *Heart of Darkness*” by Chinua Achebe. Of these, two will serve to illustrate the wealth of post-colonial literary scholarship on the Web: *Reforming the Heart of Darkness* and Brown University’s *Post-Colonial Literature*.

*Reforming the Heart of Darkness* is a part of Boondocks.net, an educational Web resource created by the American studies scholar Jim Zwick. The site, recipient of multiple awards since its inception in 1995, is dedicated to the “largely forgotten but still contested history” of the American and European colonial era. It features an incredible wealth of resources: nearly 7000 pages of primary material, as well as over 1700 graphics. The Congo-related resources focus on America’s complicity in Belgium’s colonial rule, and are categorized into four broad headings: historical texts, photographs, stereoviews, and cartoons. In range and number, the historical texts are comparable to those included in the Norton Critical Edition of *Heart of Darkness* (1988). In addition to the full text of the novel, the site includes twenty-four additional primary texts, ranging from eye-witness reports, such as the account of the Congo penned by Presbyterian missionary William H. Morrison; to letters written by prominent figures, including Conrad; to the satires of Mark Twain; to pamphlets and other materials distributed by reform associations interested in the welfare of the Congo. The site also includes the full text of *The Crime of the Congo* (1909), a book-
length tract written by Arthur Conan Doyle.

Heart of Darkness WebQuest

Post-colonial criticism

Explore the links below to learn more about post-colonial criticism:
- Emory University Introduction to Post-colonial Criticism
- History of the Congo
- Post-colonial Literature and Africa
- Reforming the Heart of Darkness: The Reform Movement in the Congo
- Brown University Post-Colonial Literature
- Heart of Darkness, an African Perspective
- Brock University: Some Issues in Post-colonial Theory
- Example Essay: "An Image of Africa: Racism in Conrad's Heart of Darkness" by Chinua Achebe

Questions to answer in your Congo Diary

1. What is colonialism? Name three colonial powers and list some of their colonies.
2. What was the scramble for Africa? What European countries were involved? What African countries became colonized?
3. What country colonized the Congo? Why was this country interested in the Congo?
4. Describe three ways life for the native Congolese changed under this occupation.
5. What is a post-colonial critic and how might he or she understand or read a text?
6. As a post-colonial critic, what might you look for in Heart of Darkness?
7. What do you think are the strengths of this approach? The weaknesses?

Figure 7. Post-Colonial Resources at the Heart of Darkness WebQuest

These primary texts are enriched by a wealth of photographs, political cartoons, and authentic stereoviews, the three-dimensional photographs widely used for both entertainment and education. All of these were originally published in the early years of the twentieth century; all may be examined more closely through a

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zoom feature; and all are accompanied by historical information listing the original publishing date, the periodical or newspaper name, and a brief explanation. Visually, the resources here eclipse the handful of photographs included in the Norton critical edition of *Heart of Darkness*. Perusing these resources amounts to taking a virtual tour of the Congo, circa 1900. More importantly, the visual resources provided my students with a post-colonial lens for reading *Heart of Darkness*, as their vision of the text was colored by the images they encountered.

A second exemplary resource is the *Post-Colonial Web*, originally created by George Landow at Brown University. Broader in scope and more theoretical in orientation than the *Reforming the Heart of Darkness* site, this resource covers the post-colonial literature of Africa, Australia, India, New Zealand, Canada, the Caribbean, and Ireland. Each country is approached from a variety of angles: the site offers critical articles and bibliographies on the authors, economics, geography, history, politics and more. A student reading *Things Fall Apart*, for example, could locate a brief biography of Achebe and a selective bibliography of his work, along with a host of critical articles, contributed to the site by international scholars and Landow’s own students at Brown. In keeping with Landow’s vision of hypertext, all of these resources are interconnected through hyperlinks.

Even more useful is the information on post-colonial theory, particularly in the context of the *Heart of Darkness* WebQuest. By linking to informative scholarly articles and short blurbs, the site defines the key themes, subjects, practitioners, and terms of post-colonial theory, again from a variety of perspectives. A student might discover, for example, that the use of English is an important issue in post-colonial theory, then read a short explanatory excerpt from *The Empire Writes Back: Theory and Practice in Post-Colonial Literatures* (1989). Another student pursuing the
theme of hybridity in post-colonial theory and literature could read a short excerpt from Salmon Rushdie’s *Shame* (1984) or an essay written by Brown entitled “Linguistic Hybridity: Making a Dictionary of Singaporean and Malaysian English.” In its organization and resources, the site promotes fluid movement between theoretical concepts and concrete application of those concepts. While equally compelling codex resources do exist, the resources at the high school library were unable to compete with this incredibly rich site.

Like the Post-Colonial Web, the vast majority of Web sites devoted to literary theory are reputable, hosted by universities and generally edited by English faculty, in some cases notable scholars in their fields. Furthermore, most are free to the public, though some like the Johns Hopkins *Guide to Literary Theory* are available through subscription only. Nevertheless, it is undeniable that the Web offers encyclopedic resources on literary theory, resources that in their breadth, depth, diversity, accessibility, and applicability overwhelm the standard offerings of print-based libraries, particularly the perennially under-funded libraries of secondary public schools.

The WebQuest: A Framework for Learning about Critical Theory

The existence of such resources, however, does not remove the most daunting obstacle to using literary criticism in the secondary classroom: the task of explaining difficult theoretical concepts to reluctant learners. Teachers may be unfamiliar with current theoretical trends, or as Appleman notes, too caught up in the daily realities of teaching to even consider integrating something as presumably arcane as literary theory (2). For both Schade and Appleman, the solution is to keep things simple: pare down literary theories to brief lectures or informative handouts, deductively
introducing the main points of each perspective. My own solution was to use the WebQuest as a framework to teach about literary theory. Its scaffolding—task, process, resources, evaluation, and conclusion—turned learning about literary theory into a student-driven inquiry, allowing each student to learn about and apply critical theory at his or her own speed. More specifically, the WebQuest framework helped students understand critical perspectives and determine what to look for as they read.

The main task of the *Heart of Darkness* WebQuest asked students to research and apply one critical theory to select excerpts from the novel. Detailed on the process page, the first step in completing this task involved answering seven questions about a particular theory. A student choosing the post-colonial perspective, for example, answered the questions shown in Figure 7 under the *Congo Diary* heading. I gave students two days to use Web resources to answer these questions in their *Congo Diary*, my term for their research journals. Not intended to be comprehensive, the questions aim to guide the inquiry into a particular critical perspective, helping the student develop a limited working familiarity with that theory. These questions begin broadly and subsequently narrow to more specific literary application.

The post-colonial questions, for example, first familiarize students with the historical context of colonialism, then require students to try to begin thinking like post-colonial critics. The last three questions are similar for each critical perspective, asking in sequence: How does this sort of critic see or understand a text? As this sort of critic, what might you look for in *Heart of Darkness*? What are the strengths and weaknesses of this particular approach? The overall strategy is to move students from understanding a critical perspective to recognizing what to look for as they read *Heart of Darkness*.
On the post-colonial page, question five asks “What is a post-colonial critic, and how might he or she understand or read a text?” In her Congo Diary, a student named Angela answers, “A post-colonial critic is somebody who reads a book while looking at it from a historical angle. They look to see the effects of the colonist on the colony, placing particular emphasis on the colony’s loss of their own culture, freedom, interests, and way of life.” Her answer demonstrates she understands key post-colonial principles: informed by Web resources, she has learned that post-colonial critics read texts “from a historical angle,” scrutinizing texts for evidence of colonialism’s devastating effect on native cultures. Her response to the next question—As a post-colonial critic, what would you look for in Heart of Darkness?—illustrates that she can readily apply this perspective to Heart of Darkness. Angela would:

look for how the Belgians are treating the natives, how their lives are now different, particularly how they are now worse. I would check for historical background, and how it relates to today. I would see how Marlow and Kurtz treat the natives, I would talk about the forced labor, and I would look for the few fights that occur [between Europeans and Africans]. I would pay special attention to the way disease is affecting the natives.

From her response, it is clear that Angela’s inquiry into post-colonial criticism has given her new strategies for reading a literary text. She brings specific questions and concerns to the text as she reads. Paying attention to the way “Marlow and Kurtz treat the natives” is not far removed from the strategy employed by Chinua Achebe in “An Image of Africa: Racism in Conrad’s Heart of Darkness,” his famous post-colonial critique of the novel. In any case, Angela now feels she possesses new interpretative tools, as she makes clear in her response to question eight. Evaluating the strengths and weakness of the post-colonial perspective, she writes:

I think that the strengths of this approach are that it gives you an
accurate background and point of view from which to read the book
[emphasis added] . . . I think that one of the weaknesses of this
viewpoint is that you may not connect personally with the book
because you are focusing so much on the effect on the other people.

By studying sites on post-colonial analysis, Angela has begun to learn the
principles of post-colonial criticism for herself. A similar level of understanding is
evident in the research logs of students who chose other critical perspectives. The
following students, for example, have differing takes on psychoanalytical criticism,
but each grapples with its basic principles and knows what to look for as he or she
reads the novel:

As a psychoanalytical critic, I might look for ways in which the
“dream-like” state of the book relates to what Freud has to say about
the sub-conscious and dreams. —Ellen

I would look for the relationship that Kurtz has with his own desires
and compare his actions to those of Marlow. Both show the struggle
between the ideal self and what their desires push them to be —Michael

The way Conrad develops or doesn’t develop certain characters
throughout the book. The way Conrad builds Kurtz to be an elusive
and secretive person, which becomes the obsession of Marlow. The
conflicts between the manager and Kurtz because that is a look into the
minds of two who have experienced the changes caused by the
Congo—Brian

Of these would-be psychoanalytical critics, Ellen is perhaps the most sophisticated:
she likens the text to a dream, equating literary interpretation with dream analysis. As
her later posts to the message board will make clear, Ellen attempts to follow her
strategy by reading the text with a keen awareness for symbolism. Still, both Michael
and Brian have legitimate psychoanalytical approaches: Michael recognizes the role
the appetite plays in Freudian psychoanalysis and focuses on Kurtz; while Brian,
whose response is more diffuse, is nevertheless interested in exploring the way
Conrad’s characterization discloses or fails to disclose the minds of particular
characters. The approaches taken by all three fall within the definition of psychoanalytical criticism supplied by the Bedford case study. In his introductory essay, Ross C. Murfin suggests that "the psychoanalytical critics employs many of the terms and procedures developed by Freud to analyze dreams... Just as the analyst tries to figure out the 'dream thought' behind the story—that is the latent content hidden in the manifest dream—so the psychoanalytical literary critic tries to expose the latent, underlying content of a work" (118-119). While none of these students psychoanalyze Conrad himself, all use Freudian language and concepts to explore *Heart of Darkness*.

Students who chose feminist criticism also arrived at strategies for reading *Heart of Darkness*. Guided by the framework of the WebQuest, Anne, Lucia, and Ashley found similar ways to interrogate the text from a feminist viewpoint. As aspiring feminist critics, they also knew what to look for:

> I would probably look at how Conrad looks at women, and their role in life at the point in time. I would look at what he says and presumes of the women, and understand what he thinks of them through the means of how he talks about them.—Anne

> What do the women do in this novel? Why isn’t there any woman main character? And what do the women characters who are in this novel symbolize?—Lucia

> Try to find where women are in the book, discover what the author thinks of women, and see how women are portrayed in the text and see if the text has a masculine tone.—Ashley

While feminist thought encompasses a variety of issues, it is possible to identify some of its main themes in the responses made by Anne, Lucia, and Ashley. As Murfin notes, one important concern for feminist critics is the portrayal of female characters in canonical texts, since these representations often reveal "the patriarchal ideology implicit in such works, showing how clearly this tradition of systematic masculine
dominance is inscribed in our literary tradition” (176). Anne’s goal of looking at what Conrad “presumes about women” and learning “what he thinks of them through the means of how he talks about them,” is a familiar feminist concern. In the same vein, Lucia will analyze the symbolism of female characters in the novel, exploring how these characters have been objectified or stereotyped. Perhaps most interesting, though, is Ashley’s strategy of seeing “if the text has a masculine tone,” since it emphasizes another concern for feminist critics: the idea that language itself is gendered. As her later posts reveal, Ashley is interested in the concept of feminine writing, and will explore, at least in a limited way, how Conrad’s gender affects his style.

Like Ashley, Chris and Michelle were specifically interested in how language works, and with some prodding chose to pursue deconstruction as their literary theory. Initially, I feared that deconstruction was too difficult for my students, since its key concepts and procedures had certainly eluded me in the past. Nevertheless, I went forward, consoled by Murfin’s observation that “almost all of us have, at one time, either deconstructed a text or badly wanted to deconstruct one” (199). Both Murfin and Appleman, in fact, insist that in its most basic form, deconstruction is simply a matter of resistant reading: a way of seeing how the inherently unstable language of a text cannot be fixed to a single definitive meaning. When we make an argument for an alternative understanding of a movie, poem, or scripture passage, we are in this most basic sense deconstructing a text.

Still, deconstruction is more complicated than just demonstrating that texts can have contradictory meanings. In both my brief conferences with Chris and Michelle and in the Web resources I selected, I emphasized that deconstruction is a language-centered process, a method that tries to expose how language endlessly
undermines itself. To help students understand this method, I focused on binary oppositions, attempting to show how Derrida illustrated the artificiality of such oppositions, or as Murfin summarizes, how Derridean deconstruction involves “erasing the dividing line or boundary between oppositions such as that between speech and writing, and to do so in such a way as to throw the order and values implied by the opposition into question” (201). In keeping with this focus, the WebQuest questions asked students to define binary opposition, to explain how one side of a binary opposition can be privileged, to describe what a deconstructionist critic might look for in a literary text, and to list what they might look for when reading *Heart of Darkness*. Guided by these questions and my explanations, both Chris and Michelle did begin to grasp what a deconstructive critic looks for:

Binary oppositions are words with opposite meanings or clearly distinct from one another, one of which is usually considered to be inherently better, like black and white. Another example is male and female. Deconstruction may turn these meanings on their heads, saying that white is evil and black is good. That idea changes the hierarchy of words, suggesting that black is only bad insofar as white is good.—Michelle

Binary oppositions are the two different kinds of things being compared. For example, male and female are binary oppositions because there is a hierarchy between them, and deconstruction is used to destroy that hierarchy.—Chris

The reader should look for opposite ideas, like light/white vs. darkness, male vs. female, savage vs. civilized.—Michelle

I would look for symbols and twist them to sound opposite to the book’s meaning, asking why this is possible. Words and sentence will also become good tools that I can use to confuse the stuff, between truth and error.—Chris

Both Michelle and Chris continued to struggle to understand the theory itself, as evidenced by their later posts. Michele pursued a number of binary oppositions in her message board posts, arguing at one point that the Conrad reverses the usual
hierarchy of light/good and darkness/evil throughout the novel. Her observation is more a recognition of Conrad’s central irony than a deconstructive act, but does show that she is reading the text closely, making evaluations about the referential and connotative power of language. Chris also struggled with the deconstructive method: like Michelle, he found instances of irony throughout the text, but failed to redirect its language for more radical purposes. In the case of deconstruction, the inquiry-based framework of the WebQuest may not have provided sufficient guidance for my students. To grasp the nuances of this difficult theory, Chris and Michelle needed more direct instruction than the WebQuest provided. Nevertheless, both had a broad understanding of the subversive power of deconstruction, and more importantly, specific ideas of what to look for as they read.

The last critical perspective included in the Heart of Darkness WebQuest was reader-response theory. Many of my students chose reader-response criticism after discovering how this particular approach validates their own opinions. They seemed to revel in the freedom of reader-response:

If the reader’s past experiences and emotions affect the meaning they derive from the text, the particular passages can have a stronger meaning to them.—Matt

I think that the strengths of this approach are that you find the meaning yourself and make it what you want it to be.—Jon

People are entitled to their own opinions and beliefs, and can use whatever they would like to back themselves up. When one reads a book or listens to a song, they have the freedom to interpret it any way that satisfies them.—Dabney

One strength of the reader response criticism is that it is a very open literary critique. It doesn’t slam the door to crazy ideas that could in some way apply to the text—Andy

In addition to feeling less restricted in their own responses, these students also understood some of the key underlying concepts of reader-response theory. Andy, for
example, clearly distinguishes between reader as consumer and reader as producer of meaning. A consumer, he argues, “just goes along with what the text is apparently trying to say to them. A consumer just reads the book.” On the other hand, “understanding the book as a producer of meaning means to try to form your own ideas and opinions about what you are reading. It includes reading deeper than the surface of the text and applying what it might be trying to say to yourself.” Likewise, Matt defined an interpretive community as “a group of people, like a class or book club, which is collectively reading and discussing a text . . . [it] can serve as a restricting force to prevent readers from having ridiculous interpretations.” Other students in the reader-response group showed similar levels of comprehension of its main principles.

Beyond understanding some key ideas, however, students in this group were unsure what to look for as they read. Their answers to one of the questions on the reader-response page may explain why. The question asked “Does reader-response theory suggest that any interpretation is valid? Explain why or why not.” I had hoped to elicit negative responses here: students were supposed to realize that good readings must be informed by the text, as Rosenblatt insists. Instead, almost all of the reader-response critics agreed that any interpretation was valid. In retrospect, I realize that too many of the WebQuest resources pointed toward subjective reader-response theorists like Stanley Fish, and not enough toward theorists like Rosenblatt and Iser. Matt alone questioned the idea that anything goes, putting his finger on the question of subjectivity that has worried reader-response opponents all along: “I cannot find substantial information regarding the validity of interpretation,” he wrote; “however, I have the gut feeling that the answer to said question is ‘Not necessarily.’”

The students who had argued for any and all interpretations may have shared
his "gut instinct"—George, for example, thought reader-response "allows for vague
responses" while Andy criticized the idea that "everyone gets a perfect score on a
reader-response paper"—but ultimately, they did not find means for dismissing an
interpretation, no matter how far out-of-bounds it seemed. The results, ironically,
were students who felt disenfranchised as readers: believing any interpretation to be
legitimate, they did not have specific things to look for as they read *Heart of
Darkness*:

I guess, since I did reader-response theory, which says the meaning of
the text comes from within the reader, I can interpret the text as I see
fit. So here goes.—Matt

Okay, since this is reader response it's not like my interpretation can
really be wrong so here goes.—George

Though Matt and George struggled with focus points, the WebQuest—and
more specifically the Web resources it pointed to—did redirect their attention to text,
as they tried to apply what they had learned about reader-response theory. Moreover,
most of my students seemed to do well with their critical perspectives, particularly
those who selected post-colonial, psychoanalytic, and feminist criticism. As
illustrated in their research logs and in the responses discussed below, students taking
these approaches both understood key concepts of their chosen theory and knew what
to look for when reading *Heart of Darkness*. Both deconstruction and reader-
response yielded less successful results, perhaps for opposite reasons. Students
studying deconstruction knew what to look for—they focused on binary oppositions
in the text—but may not have grasped the subversive purpose of deconstruction. On
the other hand, students understood the basic tenets of reader-response, or at least the
subjective version of it, but may have failed to grasp what to look for when reading
*Heart of Darkness*. Despite these shortcomings, however, the *Heart of Darkness*
WebQuest provided a framework for learning about and applying critical theory.
Using the rich resources of the Web, my students first looked outward to gain a critical perspective, and then looked back to the text with a newly focused eye.

Re-encountering *Heart of Darkness*: Reading Through a Critical Lens

The final step in the *Heart of Darkness* WebQuest required students to apply their chosen critical perspective to five passages from the novel. While any literary critic would no doubt rather pick his own passages to explicate, I pre-selected these excerpts for a variety of reasons. First, culling these passages prevented students from being overwhelmed by their task: learning critical theory was difficult enough, I reasoned, without having to mine passages from an extraordinarily rocky text. Secondly, I sought to create a parallel between Marlow and my students. In a sense, both may be seen as meaning makers. As Marlow tells his tale, he labors to see and to shape its meaning, meaning he says exists “not inside like a kernel but outside, enveloping the tale which brought it out only as a glow brings out a haze, in the likeness of one of these misty halos that sometimes are made visible by the spectral illumination of moonshine” (8). My students shaped their own meanings by reinterpreting the tale Marlow tells, viewing the story again through new critical lenses, perhaps, by analogy, bringing out the meaning “as a glow brings out a haze.”

To reinforce this parallel, I chose passages that occurred in five different locations along Marlow’s journey: the docks on the Thames, Outer Station in the Congo, Central Station, Inner Station, and lastly, Sepulchral City. For both Marlow and my students, the journey toward meaning had a physical route.

I also selected the passages based on the particular critical perspectives I had chosen. Each passage had to have salient focus points for psychoanalytic, post-colonial, feminist, deconstructive, and reader-response critics. The novel yielded a
number of appropriate passages: the narrator Marlow has a keen eye for detail and is given to the weightiest of speculations, and by consequence, his tale is heavy-laden with meaning, and ripe for explication. Of course, this observation could be made about any number of fictional narrators; nevertheless, there is something in Conrad's style—E.M. Forster once claimed the novel “discharges its smoke screen into our abashed eyes” (138)—that invites a multiplicity of critical interpretation.

Students begin constructing their own critical interpretations at the docks, the first location in their journey toward meaning. Here they encounter a passage taken from the opening pages of the text. As shown in Figure 8, the excerpt begins with Marlow's famous interruption, “And this also has been one of the dark places of the earth,” and concludes approximately 1,000 words later. Students posted short responses (minimum 150 words) about each of the excerpts to an online message board. Each critical theory had its own designated message board, so the psychoanalytical critics, for example, could read and respond to each other, and also visit the feminist message board, though they were not required to do so. In retrospect, requiring students to respond to another critical perspective would have been a productive extension of the assignment. As both Schade and Appleman point out, discussions of literature are enriched by multiple critical perspectives. Such discussions occurred in my classroom, but only in informal ways, as students reflected on their WebQuest experience.

It also bears remembering that my students had already completed the novel prior to beginning the WebQuest, so their responses often point to future events. I hoped this process mirrored the way literary critics construct their own arguments—by dialoguing with other critics, largely within their own field, and by formulating their own stance only after thoroughly considering the text as a whole. In the
following responses to the docks excerpt, five students taking different critical

Your Instructions:

Read the following excerpt from Heart of Darkness very carefully. You may even wish to print this excerpt so you can underline important words and sentences. If you are uncomfortable reading from a screen, locate the passage in your text (pages 3-4).

Keep in mind that you are reading the passage through the eyes of the literary critic that you researched. Ask yourself, "What would this sort of critic look for? Why?"

When you are done with this excerpt, click Message Board to post your thoughts. Be sure to follow the guidelines for posting a message. By the end of this journey, you should have five separate posts, one for each location.

"And this also," said Marlow suddenly, "has been one of the dark places of the earth."

He was the only man of us who still "followed the sea." The worst that could be said of him was that he did not represent his class. He was a seaman, but he was a weederer, too, while most seamen lead, if one may so express it, a sedentary life. Their minds are of the stay-at-home order, and their home is always with them—the ship, and so is their country—the sea. One ship is very much like another, and the sea is always the same. In the immutability of their surroundings the foreign shores, the foreign faces, the changing immensity of life, glide past, wasted not by a sense of mystery but by a slightly disdainful ignorance, for there is nothing mysterious to a seaman unless it be the sea itself, which is the mistress of his existence and as inscrutable as Destiny. For the rest, after his hours of work—a casual stroll or a casual spree on shore suffices to unfold for him the secret of a whole continent, and generally he finds the secret not worth knowing. The yarns of seamen have a direct simplicity, the whole meaning of which lies within the shell of a cracked nut. But Marlow was not typical (if his propensity to spin yarns be excepted), and to him the meaning of an episode was not inside like a kernel but outside, enveloping the tale which brought it out only as a glow brings out a haze, in the likeness of one of these misty halos that sometimes are made visible by the spectral illumination of moonshine.

His remark did not seem at all surprising. It was just like Marlow. It was accepted in silence. No one took the trouble to grant even; and presently he said, very slow—

"I was thinking of very old times, when the Romans first came here, nineteen hundred years ago—the other day... Light came out of this mor since—you say Knights? Yes, but it is like a running blaze on a plain, like a flash of lightning in the clouds. We live in the flicker—may it last as long as the old earth keeps rolling! But darkness was here yesterday. Imagine the feelings of a commander of a legio—what I tell 'em!—streamer in the Mediterranean, ordered suddenly to the north run overland across the Gauls in a hurry, put in charge of one of those craft the legionaries—a wonderful lot of handy men they must have been, too—used to build, apparently by the hundred, in a month or two, if we may believe what we read. Imagine him here—the very end of the world, a sea the color of lead, a sky the color of smoke, a kind of ship about as rigid as a concertina—and going up this river with stores, or orders, or what you like. Sand-banks, marshes, forests, savages, precious little to

Figure 8. The Heart of Darkness WebQuest: Journey Toward Meaning

perspectives begin to formulate their own interpretations, chiefly by finding and
discussing sentences and phrases that strike them as significant. Angela, the post-colonial critic, immediately focuses on “typical wrongs that come with colonization”:

The Romans conquered [England] in much the same way that the Belgians conquered the Congo. They simply moved in and took the ivory, like the Romans, “grabbed what they could get for the sake of what was to be got.” They came into a country that wasn’t even theirs and looted it of its resources. “Here and there a military camp lost in a wilderness, like a needle in a bundle of hay—cold, fog, tempests, disease, exile, and death—death skulking in the air, in the water, in the bush.” This picture of the Romans in Britain sounds just like the Belgians and their stations in the Congo, especially when speaking of the death, because the natives were dying in bunches because of the typical wrongs that come with colonization.

Assuming a psychoanalytical stance, Michael begins by analyzing Marlow’s motive for telling his tale:

What I find more interesting is why Marlow tells this story in the first place. I think that Conrad is making a very deliberate point by writing his book using Marlow as a storyteller, since stories are one of the primary ways that humans relieve themselves of stressful or traumatic events . . .

Anne uses Marlow’s condescending tone toward women as a starting place for her feminist reading of Heart of Darkness:

From the feminist point of view this passage brings out a broad view of the abilities of women, what they could mentally handle, and women in society should act. “They were men enough to face the darkness.” This line says that only the men could handle the darkness, and risk their lives to make the money for the family. No woman could ever face the darkness with such a simple mind.

Matt, a reader-response critic, begins by drawing on his own experience, in this case invoking a character from The Simpsons. Despite the levity, the distinction he draws between Marlow and the typical sailor is a good place to start:

The narrator also discusses the men of the sea, and this paragraph really reminds me of the Sea Captain on “The Simpsons.” (Y’arr!). He says, “Their minds are of the stay-at-home order, and their home is always with them—the ship; and so is their country—the sea.” He also
says that their only superior is the sea itself. Basically, he is saying, I think that men of the sea are free-spirited sort, who are at home only when they are in their ships, and that they are at the mercy of the sea. It sort of gives you an idea of Marlow’s mindset, and why he goes into the Congo in the first place. He does say, however that Marlow is different than most seamen . . .

Michelle begins her deconstructive reading by searching for interesting binary oppositions. While her analysis of light/civilization and darkness/savagery does more to expose Conrad’s irony rather than subvert his language, her first response nevertheless makes a compelling point:

One might assume that by darkness he means the barbarians in England were living in darkness, without the modern conveniences and enlightenment of Rome. But perhaps he is actually suggesting that the Romans brought the darkness with them when they came to conquer. Maybe the “decent young citizen” is actually the savage, just coming to make money and fix the mess he left behind at home. Marlow himself uses some deconstructionist ideas in this very passage.

These early responses show students struggling to apply their recently acquired critical perspectives. Still, as I read them, I was impressed at the analysis that I saw occurring. When I remembered test essays written by earlier students, who had faithfully—and wisely—rehashed the points I made in class, these initial forays into critical analysis seemed both refreshingly original and authentic. Moreover, I noticed that students were supporting their ideas with key details from the text—a strategy I emphasized in all of my literature classes. The majority of students were reading the passages closely, more carefully and more critically than they otherwise might. As they continued their journey toward meaning, their interpretations took more definitive shape, illustrating their application of the information gleaned from Web resources. Each begins to adhere more closely to their critical perspective, seeing each passage more clearly through a theoretical lens.

In the passage included at the Outer Station, Marlow discovers the “grove” of
death, where scores of Africans “were dying slowly—it was very clear. They were not enemies, they were not criminals, they were nothing earthly now—nothing but black shadows of disease and starvation, lying confusedly in the greenish gloom”(14). Just a few yards away, he encounters the immaculately groomed accountant, who has managed to keep up his spotless appearance despite what Conrad calls—perhaps ironically, perhaps not—the “great demoralization of the land” (15). Students were quick to point out the incongruity of the scene, approaching the white-on-black juxtaposition from a variety of critical angles. Angela, the post-colonial critic, writes:

There is such contrast in this section between the colony and the colonist. Marlow talks all about how the natives are dying from overwork and starvation, and then he immediately meets one of the neat, clean, well-dressed, and ‘civilized’ people in charge of their welfare. While the colonist is in a starched collar and necktie, working as a bookkeeper with a roof over his head, the natives are, “...in all the attitudes of pain, abandonment, and despair... They had been “Brought from all the recesses of the coast...” to be forced into labor for a distant country who only cared about its own power and wealth.

Michael employs the language of psychoanalysis to discuss this scene. As in his first post, he again focuses on Marlow, finding significance in his treatment of the dying slave. Michael uses the Freudian terms **ideal self** and **archaic self** to analyze Marlow’s character:

I completely agree with Brain’s analysis of this section, especially about the significance of the hole. I also think that the drainage pipes he sees enforce the absurdity of the situation... The other point that I feel is of some significance is Marlow’s encounter with the dying slave. “I found nothing to else to do but offer him one of my good Swede’s ship’s biscuits I had in my pocket.” This act of compassion is one of the few times that we see the Ideal Self triumph over the Archaic Self. Beyond any doubt this man will die, yet Marlow reacts in the way he has been taught by his parents and society.

Michael’s post also points to one of the strengths of the threaded discussion format: it allows students to respond to other writers. Brian, another psychoanalytical critic, has
suggested that the holes symbolize the depth and depravity of human desires, and Michael adds to this interpretation by observing that the pipes also seem symbolic. Throughout their posts, students reacted to each other in similar ways, sometimes agreeing with each other, sometimes disagreeing, and sometimes wistfully acknowledging another student’s interpretation. “If I was a wise as [Michelle], writes Chris at one point, “I would have spotted this myself...” In a very small way, my students were establishing a critical community, imitating the dialogue that exists between literary critics. And since the *Heart of Darkness* WebQuest is published on the Web, it would be possible to extend this critical community to other classrooms around the world. I originally planned to use the WebQuest with another English teacher, from Texas, who was teaching *Heart of Darkness* in his senior literature A.P. class. Ideally, our classes would have shared the message boards, allowing our students to read and respond to a wider range of perspectives. Scheduling conflict prevented this from occurring, but the possibility for a much broader critical community remains. Since it was posted to the Web in 2001, at least eleven other literature teachers have used the *Heart of Darkness* WebQuest in their classrooms.

To return to the passage at the Outer Station: Anne finds a different focus point in her reading. She concentrates on a seemingly insignificant detail: the native woman whom the accountant has taught to wash clothes. In this response, Anne makes a subtle link between colonialism and sexual chauvinism. Her feminist reading is taking shape:

The man in charge of the outer station is where my attention is drawn to the most. What he did to that woman directly says who he is, and what he thinks of women. He says, “I’ve been teaching one of the native women about the station. It was difficult. She had a distaste for the work.” Thus this man had verily accomplished something.” By teaching her how to clean and iron his clothes, he had accomplished, and civilized at least one savage. To civilize people, if that is really
something you can do, in his standards is to dominate the women and make them do his work, and make him look professional.

Matt again drew on his own instincts to interpret the passage. A reader-response critic, Matt struggles with what to look for, beginning this post with a parenthetical note: “I think I figured out a better way of doing this . . .” His better way, as it turns out, is to focus on the contrasts he discovers in each passage. In this case, Matt focuses on the two dominant images: the grove of death and the accountant:

First of all we have the Outer Station grove of death, which, through the description, seems quite a hellish, pathetic, desperate, and awful place . . . Secondly, we have the crisp, white, clean-cut account, who Marlow describes as a “miracle.” This man seems so out of place in this dark and horrible place, and the contrast of him with the place he is has some strong meaning. I think the meaning of this passage is shown through both the accountant and the grove of death together.

Michele sees this passage in terms the binary oppositions between light and darkness. Again, her attention focuses chiefly on the irony of the scene, but her last comment about the word demoralization edges her closer to deconstruction:

The words starched, white, light, and snowy are all usually assumed to be good. Instead, Conrad uses these adjectives to describe the evil coming into the land. This approach is effective because we are somewhat fooled into thinking of the accountant and colonization as good, just like the Europeans told themselves it was. Marlow also says, “His appearance was certainly that of a hairdresser’s dummy; but in the great demoralization of the land he kept up his appearance.” This is an example of making an assumption about one thing which depends on the existence of something else. The land only seems demoralized compared with the pristine whiteness of the accountant. If he weren't there the land would not be demoralized.

From the Outer Station and the immaculate accountant, students travel to the Central Station, where they encounter the bearded riveter and the Eldorado Exploring Expedition, described by Marlow as a “sordid band of buccaneers” whose only desire was “to tear treasure out of the bowels of the land” (27). Though they have met these
characters on their first read, they now see them through newly critical eyes. Angela, for example, writes that the Eldorado Exploring Expedition “signifies colonialism at its worst,” while Michael labels them the “embodiment of the Archaic Self.” As evidenced by these responses, their critical interpretations continue to take shape as they re-encounter the text.

Leaving Central Station, students journey to Inner Station and Mr. Kurtz, the “initiated wraith from the back of Nowhere” (44). The excerpt included here centers on Kurtz, and touches briefly on many aspects of his existence: his European upbringing, his relationship to his fiancé, his lust for ivory, and his mistreatment of the natives. Matt rightly observes that the passage has “one main message to it, and that is Kurtz, and all that has gone into the making of him (or the breaking down of him).” Again, Matt looks for contrast in the text, this time finding one between Kurtz the “perfect colonist” and Kurtz the “raving madman.” From her feminist viewpoint, Anne finds Kurtz’ relationship with his Intended particularly disturbing. Kurtz, she argues, wrongly shelters her from “what is really going on in the world with men, especially in the Congo,” assuming that “if he told her it would crush her.” Michelle, the deconstructive critic, finds more irony in Kurtz’ European heritage. “Civilization and the Inner Station are set up against each other here,” she writes. “Marlow is criticizing civilization by pointing out barbaric aspects of it, while using a tone that says it’s the acceptable norm.”

For both Marlow and my students, the final destination of the journey toward meaning is the Sepulchral City—Brussels, Belgium. Marlow ends his journey at the home of Kurtz’ fiancé, where he has traveled to deliver some of Kurtz’ personal items. To his dismay, he finds it impossible to tell her the truth about Kurtz; instead, he finds himself surrendering to “that great and saving illusion that shone with an
unearthly glow in the darkness," or the Intended's undying faith in Kurtz. Perhaps to protect her and perhaps to save Kurtz' reputation, Marlow tells the Intended that Kurtz uttered her name with his dying breath, a lie he finds repulsive but somehow unavoidable. There is an ambiguity to this conclusion: despite the completion of the physical journey—Marlow has come full circle, traveling from Europe to Africa and back to Europe—his tale seems unresolved, trailing off with a series of questions:

It seemed to me that the house would collapse before I could escape. But nothing happened. The heavens do not fall for such a trifle. Would they have fallen, I wonder, if I had rendered Kurtz that justice that was his due? Hadn't he said he wanted only justice? But I couldn't. I could not tell her. It would have been too dark—too dark altogether . . . (72)

Critic Adena Rosmarin contends that this final ambiguity is deliberate. As readers, we are told early on that the tale will be inconclusive, by the first narrator whom Marlow interrupts. "This warning," she continues, "is all important. It tells us not only that the inconclusiveness we will find in the tale is deliberate, not an error of our reading, but also that a good reading of this tale, contrary to what we expect good readings to be, will not find conclusions, whether aesthetic, as in the resolution of a plot conflict, or moral, as in the making of a judgment, but, rather, a conspicuous lack of them" (159).

My students wrestled with the inconclusiveness of the text in their own journeys toward meaning. In their final posts, some attempted to create a larger coherent meaning, while others struggled to make sense of it all. The feminist critic, Anne, draws a broad conclusion about men and women in society, suggesting she has taken a central lesson away from the novel: in her words, "women deserve to hear the truth":

He didn't want to tell her what his last words really were, and if she thought that his last words were her name, then maybe she would be
able to live in a little less pain. The news of his death was enough, then
to tell her that he really didn’t say her name, that’s just going to ruin
her. To say that a woman could not handle real life, and to make up
what people say to protect them, is wrong. Women deserve to hear the
truth too, and who says they can’t handle it. Perhaps the lies and
covering up are what really is hurting them.

In a similar way, Matt sees a fundamental truth emerge from his reading of the
novel. Again attuned to imagery, he notices how the room grows darker and darker as
Marlow speaks to the Intended, and draws a final conclusion about the story:

I find the encroaching and ominous darkness hard to interpret. I think
it could represent the lack of morality that took over Kurtz, and now it
is looming in on Marlow, as he tells lie after lie. As Marlow finishes
the story he is telling, oddly enough (or is it?), “The offing was barred
by a black bank of clouds, and the tranquil waterway leading to the
uttermost ends of the earth flowed somber under an overcast sky—
seemed to lead into the heart of an immense darkness.” I think this
darkness is the heart of man.

Other students, however, had more difficulty arriving at a final meaning.
Angela, who had read the text with an eye trained on the relationship between
colonizers and colonized, found little to look for in this concluding excerpt. In her
final response, she writes:

I have pondered and pondered and I can’t seem to figure out how this
passage relates to post-colonialism. There’s nothing in it about
colonization! So I’m just going to ask you about it tomorrow because I
can’t figure it out, much as I’ve tried.

In response to her post, I gave Angela specific suggestions, all of which
prodded her to consider Kurtz as a symbol of colonialism. I wanted her to compare
the relationship of Kurtz and his Intended to the relationship between the Congo and
Belgium. A better response, I now realize, would have included the observation that
all critics read selectively, choosing particular passages to support their points while
ignoring passages that other critics see as indispensable. I might have pointed out that
in his famous condemnation of the novel, Chinua Achebe ignores the ending of the
novel altogether, spending the full force of his energy on Conrad’s depiction of the Congolese. In fact, the obstacle Angela encounters—what to do with seemingly irrelevant textual pieces—is at the heart of the critical endeavor. But unlike other critics, Angela did not have the choice to ignore the passage.

The final responses of Michael and Michelle also resist closure. Michael, we will recall, initially asked why Marlow might tell his tale, and explored the Freudian concepts of the ideal and archaic self to begin constructing an answer. He approaches the Sepulchral City from this angle—he mentions Kurtz’ “deepest desires”—but seems to stop just short of applying these ideas to Marlow. As Marlow is unable to finalize the meaning of his voyage, Michael ultimately offers no answer to his first question, summarizing the final scene rather than plumbing the depths of Marlow’s character:

Marlow knows that Kurtz had given in to his deepest desires, that he was a corrupted and tortured soul by the end. But he now has to decide whether or not she would understand the truth about Kurtz. Throughout the conversation he does not object to the woman’s false notions, even though he is somewhat angered by them . . . His final decision has to be made when she asks him what Kurtz’s last words were. Marlow desperately wants to tell her the truth . . . [but] decides that she would not understand the horror, that no one else could understand it without experiencing it. So he lies to her and answers, “The last word he pronounced was—your name.”

In her final post, Michelle continues also resists finding a final meaning for the text, which seems appropriate for a deconstructive critic. Instead, she concentrates on one last binary opposition, “the opposition between men and women”:

[Conrad] portrays the girl as being helpless and totally dependent on Kurtz—he defines her existence. He writes, “She seemed as though she would remember and mourn forever.” This implies that she can’t go on with her life without the man that was her life. He makes her seem desperate to be sure that Marlow knew she knew Kurtz best. Then Marlow takes over in the assumptions about women. He builds himself up thinking the girl needed him to confide in. He says, “and
the girl talked, easing her pain in the certitude of my sympathy; she talked as thirsty men drink.” Marlow’s assurance of his own sympathy for her makes him think she needs him. Then Marlow goes so far as to “protect” her based on his beliefs that men are stronger and must shield women from the hardships of the world . . .

While never quite a deconstructive reading, Michelle’s final insight into the text is remarkable: her discovery of the complicity between Kurtz and—Marlow “takes over” where Kurtz has left off—is sensitive to the chauvinistic connotations of Marlow’s language, a sophisticated reading that she would not have made without first learning about deconstruction. By the same token, without first encountering literary theory, Michael would not have understood Kurtz as a manifestation of the Archaic Self; Matt may have discarded his ideas about contrasting images; Anne may have missed the sexist language and ideology underlying the text; and Angela would be less aware of the political context informing *Heart of Darkness*. Their readings were not always on the right track—nor were the readings of their classmates who were not represented here. Letting students discover critical theory on their own also let them falter as they tried to comprehend and apply it. It is undeniable, however, that these were the most text-centered interpretations of *Heart of Darkness* ever produced in my senior literature classroom.

In addition, I hoped to give my student tools to use in their future classes by showing them how to read a literary work, rather than just showing them what a given text means. Knowing about literary theory may help my students succeed in their future academic careers, not because they will recall the specific details of the critical perspective they assumed for three days, but because they realize that multiple viewpoints exist for any given text. Beyond this realization, their brief encounter with literary theory may help them to read the world at large with a more critical eye. Furthermore, in exploring a canonical text that has fostered a wide range of critical
interpretation, my students had met—again only briefly—key thinkers in socio-intellectual history, Marx, Freud, and Derrida among them.

Conclusion

All of these outcomes could have been achieved without the World Wide Web, as Shade and Appleman illustrate. But the WebQuest format was uniquely suited to the learning and application of literary criticism. First, it offered encyclopedic resources on critical theory that were far more in-depth and accessible than what the school library could provide. In addition, its constructivist scaffolding imposed a critical methodology on my students. From any theoretical orientation, reading critically involves asking key questions and developing answers through careful accumulation of textual details. The _Heart of Darkness_ WebQuest begins with an inquiry—How do you go about making sense of a story as obscure as _Heart of Darkness_? asks the introduction page—and then takes students through a step-by-step progression in which they construct their own interpretations by gleaning details from important passages. The threaded-discussion also allowed students to write, read, and react to responses posted by classmates, establishing a small critical community in the process. Ultimately, then, the _Heart of Darkness_ WebQuest supported the goals of text-oriented literature instruction by enabling my students to read a canonical text in a careful and critical way.
CHAPTER V

TRANSLATING TECHNOLOGY TALK INTO EFFECTIVE TECHNOLOGY INTEGRATION

Wiring schools alone is not enough to compensate for other factors that are failing to ensure that all students have free and equal access to both information technology and digitized information. That will come out of endeavors that seek to ensure ... that the model of education as a whole is changed. This requires retraining of teachers.


I jumped on the Web and printed out five high-quality pictures of poison dart frogs. These are amazingly neon frogs that these kids have never seen... I get it all printed out and pass it out to the kids, and you hear them all go 'Whoa, wow!' No matter how descriptive you are, you can't really see how colorful a frog can really be unless you have a computer in your classroom.

Dave, a pre-service English language arts teacher (2003)

Introduction

This final chapter brings the discussion of the Web and literary reading into the realm of teacher education. It explores how technology-enriched literature methods courses can best prepare pre-service teachers to integrate the Web into their own day-to-day teaching. It tells the story of four pre-service English language arts teachers as they attempt to use technology to support literature instruction during their internships. Selected from my own technology-enriched literature methods course, the pre-service teachers in this study experienced successes and failures using technology during their internships. Their stories raise concerns about access,
assignments, and attitude—issues that teacher educators must consider when designing their own technology-enriched methods courses.

The Technology-Enriched Methods Course

It is the fall of 2003, my classroom is the English Education Laboratory at Western Michigan University, and the course is English 480: Teaching Literature in Secondary Schools. On this particular day, my students are working on their literary WebQuests. Juniors and seniors in the secondary English education program, these students are quickly approaching their internships and are hoping the WebQuests they design will be useful in their field classrooms. With this in mind, many of them have selected literary works frequently taught in secondary schools. Mark, for example, is creating a WebQuest based on Macbeth. Today, he is locating quality Web resources on Shakespeare, which his students will use to rewrite particular scenes from the play. There is an abundance of Shakespeare resources on the Web, so Mark has his work cut out for him.

To design his WebQuest, Mark is using the software Dreamweaver, available on the twenty-four student laptops housed in the English Education Laboratory, or EEL. In the winter of 2002, the English Department at Western Michigan University began teaching classes in the newly constructed EEL, a wireless classroom nearly two years in the making. Funded by a grant from the College of Arts and Sciences, the EEL is furnished with twenty-four student laptops stored in two portable carts, three desktop computers equipped with scanners, an overhead data projector, a digital camera, and a smart board. The lab also features mobile tables and chairs that can be easily rearranged into rows, small circles, theater seating or other large group formations. While the EEL might meet the needs of many disciplines, it was
specifically developed to train current and future teachers of the English language arts. Its principal designer, Dr. Allen Webb, envisioned a flexible and comfortable environment where English educators could model the integration of technology into literature and composition curriculums.

The creation of the EEL, among the first of its kind in a major public university, was one small wave in what has been called the wireless revolution, the large-scale movement toward wireless computing that began on college campuses at the turn of the millennium. For many such schools, choosing to install a wireless network (WLAN) was chiefly an economic decision: installing the multiple access points that constitute a wireless network is significantly cheaper than retrofitting old campus buildings with high-speed cables. Southern Mississippi University, for example, went wireless after estimating the cost to be only $9,000 per building, compared to $75,000 per building for new high-speed land lines (Olsen 2). Other campuses have found wireless networking similarly cost effective. The University of Cincinnati, Buena Vista University, the University of Akron, and many other institutions have saved money by going wireless. On average, these schools spent about one-fifth the amount on wireless as they would have on wired connections (Carlson 1).

And while wireless connections are generally less secure and slower than wired hookups, more and more universities are going wireless, frequently funded by tech corporations like Lucent or Cisco. Evidencing the growing popularity of wireless networks, the company Intel now publishes an annual report ranking the Top 100 most unwired cities, airports, and college campuses. Western Michigan University, wireless since 2002, ranks eighth in the country (“Most Unwired” par. 3). Wireless networks are also gaining a foothold on secondary and elementary campuses. In
2001, the Peak Group found that the number of wireless networks operating in schools jumped 50 percent ("New Report on Wireless Technologies" par. 4). This is not to imply that wireless networks are now common in primary and secondary schools: as the National Center for Educational Statistics reports, only 23 percent of schools in 2002 had any form of wireless connection, with only 15 percent of these located in instructional rooms where students might use them ("Internet Access in U.S. Public Schools" 4). Rather, it is meant to suggest that wireless networks will play an increasingly large role in secondary schools, as the ubiquitous computing envisioned by wireless enthusiasts becomes a reality in the not-too-distant future.

In this sense, the English Education Laboratory was envisioned as a prototype of the classroom of the future. Working in this environment, Mark and his classmates gain experience with the technologies that will likely constitute their own future classrooms: highly mobile furniture, wireless laptops, high-resolution scanners, Smart Boards, and data projectors. The EEL, in other words, provides an optimal training ground for integrating technology and learning. Furthermore, instructors who teach in the EEL are typically involved in modeling effective technology use. As an English 480 instructor, I am deeply interested in using technology to support literature instruction in theoretically sound and pedagogically valuable ways, as the previous chapters and my students would attest. The WebQuest assignment, for example, arises from my belief that a WebQuest provides a highly effective means to harness the encyclopedic resources of the World Wide Web to literature instruction.

Given this environment and training, it is important to ask how English 480 students fare with technology during their subsequent intern teaching experiences. This study answers this question with a case study of four of my students who interned in local secondary schools. The purpose is not to measure how much
technology training interns absorbed in quantitative terms, but to explore how the English 480 and the EEL can best meet the needs of pre-service teachers. More specifically, this study asks the following question: How can the resources and curriculum of the EEL best prepare English language arts teachers to use technology during their internships and future careers? I focus on three specific areas related to technology-based methods instruction: the technology resources available at internship sites, the Web-based assignments in the methods course English 480, and the attitude of pre-service teachers toward using technology. Hence the subquestions of this study:

1. How can the technology-enriched methods classroom best prepare pre-service teachers for varying degrees of access to technology resources at their internship sites?

2. What technology-based assignments from English 480 are most useful for pre-service teachers during their internships?

3. How do pre-service teachers trained in a technology-enriched classroom envision themselves using technology in their future English language arts classrooms?

In exploring these questions, this study tracks four English/Language Arts interns during the spring of 2003. Each had taken my section of English 480 in the EEL during the previous fall semester. The participants, Mark, Travis, Dave, and Suzi, were seniors in the Secondary English program at Western Michigan University at the time of the study. They generated data in three different formats. Before their internships began, they assessed the technology resources at their host sites and wrote anticipatory essays detailing their expectations for integrating it into their teaching. During the internship, they participated in an online threaded discussion about their use of technology. At the conclusion of the internship, they were interviewed. The school environments represented by the four participants vary dramatically, ranging
from a rural high school to an inner city middle school. The case studies are supplemented with data generated by a survey taken by nineteen additional interns during or at the conclusion of their internship. The thirty-three question survey dealt with the three interrelated issues of this study: access, assignments, and attitude.

Redefining Access: Mark and Travis

The issue of access is a crucial part of any discussion of technology, but it is particularly relevant to education. Since the introduction of computers into classrooms, educators have been concerned with the digital divide, or the gap between schools equipped with technology and those without. The advent of the Internet intensified this concern. As Donald Tapscott noted in 1998, "The most widely feared prediction surrounding the digital revolution is that it will splinter society into a race of information haves and have-nots, knowers and know-nots, doers and do-nots" (255). Initially, efforts to prevent this scenario focused on hardware: creating digital equity meant putting computers with Internet connections in every classroom.

This was a necessary first step. According to the National Center for Education Statistics, the early to mid-1990s were marked by substantial differences in Internet access between low-income and high-income schools. In 1994, only 18 percent of public schools with 75 percent or more of students eligible for free or reduced-price lunch had Internet access. Schools with lower rates of free or reduced-price lunches (less than 35 percent) were more than twice as likely (39 percent) to have Internet access. The digital divide was also evident along racial lines: only 27 percent of schools with more than 50 percent minority enrollment had Internet access, compared to 38 percent of schools with minority enrollment under 6 percent ("Internet Access in U.S. Public Schools" 5).
Another troubling indicator during the early days 1990s was the student-to-computer ratio. Schools with more students on free or discounted lunches (75 percent or higher) or more minority students (50 percent or higher) had fewer computers for their student population, with, respectively, 16.8 and 17.2 students per every Internet-connected computer, compared to 10.6 students in schools with less than 35 percent on assisted lunch programs and 10.1 students in schools with less than 6 percent minority enrollment ("Internet Access in U.S. Public Schools" 5). When coupled with early statistics about Internet access in low-income homes, the student-to-computer ratio becomes particular significant. A 1996 Roper Starch analysis of U.S. Census data showed that only 7 percent of low-income families had a computer at home, making access at school all the more important (Tapscott 259).

In recent years, however, the digital divide has narrowed, not widened as some predicted. Two key indicators of digital equity—Internet connectivity and the student-to-computer ratio—have improved significantly in public schools across the nation, including those in low-income districts. In fact, the National Center for Educational Statistics reports that, at least in terms of hardware, the digital divide is rapidly closing. In 2002, 99 percent of schools with high minority enrollment had Internet access, as did 99 percent of schools with over 75 percent of students on assisted lunch programs. Overall, 99 percent of all public schools had Internet access, regardless of enrollment size or location. The gap has also closed in the number of students per Internet-connected computer, with a 4 to 1 ratio at schools with less than 6 percent minority enrollment and 5.1 to 1 at schools with over 50 percent minority enrollment. Similarly, schools with a large percentage of students on the assisted lunch program also saw marked improvement, with a 5.5 to 1 student-to-computer ratio, compared to a 4.6 to 1 ration at schools with less than 35 percent of students on
the lunch program (“Internet Access in U.S. Public Schools” 5). In 2004, public schools have an average of 4.3 students per computer, according to a study conducted by Market Data Retrieval (Park 2).

Even more encouraging, low-income families are now more likely than ever to have Internet access at home. A 2003 study conducted by the North Central Regional Educational Laboratory found that between 1998 and 2001, Internet use in low-income households increased by 25 percent per year (“Engauge: 21st Century Skills” 7). And a 2003 survey by the Grunwald Association found that more than two-thirds of such homes had Internet access in 2003, compared to only 50 percent in 2001 (“Study: Digital Divide Shrinks” par. 4). Additionally, in 2001, 53 percent of all public schools offered Internet access after school hours, a number that varies only slightly along socio-economic lines (“Internet Access in U.S. Public Schools” 5).

Nationwide, the overwhelming majority of public schools have computers and high-speed Internet connections. Consequently, the digital divide may be less a matter of computer hardware and more an issue of expertise, or the ability to put computer resources to work in educationally meaningful ways. As a study conducted by the North Central Regional Laboratory concludes:

Access is just the first step . . . the digital divide also represent differences in the capacity to use technology tools efficiently and effectively. True equity requires high levels of technology proficiency to ensure broader, more meaningful, and increasingly innovative uses of technology by all segments of the population. (7)

If erasing the digital divide involves teaching students from all segments of the population to use technology effectively, then teacher educators bear responsibility for training their students, future teachers, how to integrate technology into their own curriculums in productive and meaningful ways. One important lesson that teacher educators must impart is the problem of availability. While schools
generally have computer resources, these resources are frequently unavailable for classroom use for a variety of reasons. Access is now more a matter of availability—the computers are there, they are just hard to get to. This unavailability of resources was a source of frustration for many of the interns included in this study. The point is best illustrated by the cases of Mark and Travis.

That Mark has a deep interest in theater seems no surprise, given his dramatic appearance: he is tall, at least six feet, and wears a full beard and a pony tail. With his slightly bohemian appearance, Mark might seem out of place at Gull Lake High School, a quiet rural school nestled in a small town in southwest Michigan. But prior to his internship, Mark had spent a year assisting the theater program at Gull Lake, establishing close ties with a handful of its students and easing his own transition into its classrooms. Nearly 1,000 students attend Gull Lake. Of these, 97 percent are white, drawn from the relatively affluent agricultural and industrial community surrounding the school (www.greatschools.net).

In many ways, the technology resources at Gull Lake are typical for a high school of its size. The school features a media center with seven desktop computers, as well as two additional computer laboratories, one equipped with twenty-four new desktop computers, the other with twenty-four slightly older models. At the time of this study, the school was waiting to install twenty-four additional machines. Most classrooms also had a computer, intended for the instructor. The labs share a broadband Internet connection, accessed via an Ethernet network. Gull Lake does not have a wireless network or any laptop carts, but like nearly all of the schools where WMU students interned, Gull Lake possessed updated computers and a broadband connection to the Internet. In fact, 74 percent of surveyed interns identified the computers at their schools as less than three years old, and 84 percent of surveyed
interns characterized their Internet connection as high speed.

Despite the presence of these resources, however, Mark wrote in his anticipatory essay that had already learned "a hard and fast lesson about what was available." Before the semester began, the Gull Lake media specialist informed him that computer availability was limited: two or three of the computers were usually malfunctioning, he was informed, and the local Ethernet network was down 10 to 25 percent of the time. But the most frustrating issue, as Mark was to learn, was booking time in the labs: both were reserved on a first-come, first-serve basis, and Mark speculated that they were busy 75-95 percent of the time. For long stretches during the semester, the labs were booked solid, reserved for long-term research projects or other computer-based activities. Early in the semester, he posted this entry to the online discussion forum:

I am frustrated with the fact that I want to do technology enabled projects but can neither get the time in the labs or can fit it in with everything else my mentor wants completed and I want completed.

Other interns were similarly vexed by the problem of availability. Travis, an intern at Comstock High School, voiced many of the same frustrations. A stocky redhead who good-naturedly remembered how one student said "his forehead was chasing his hair away," Travis was exasperated by the unavailability of the computer labs at his internship site, Comstock High School. In response to Mark's online post, Travis wrote, "I'm having similar problems as Mark is. Comstock has very few technological resources available to the students."

Comstock High School is just a few miles down the road from Gull Lake. At approximately 800 students, Comstock is slightly smaller than Gull Lake and has a lower socioeconomic profile and more diversity, with non-white students comprising 12 percent of its population (www.greatschools.net). The technology resources at
Comstock are similar to those at Gull Lake: the school has a media center with thirty computers as well as two separate laboratories, both equipped with twenty to thirty new machines, along with a few scanners and a digital camera. The media center and labs share a broadband Internet connection, which is also available to the desktop computer residing in each classroom. Like Gull Lake, Comstock currently has no wireless resources. And while the existing computers may seem sufficient for its student body, Travis called Comstock "one of the least technologically advanced schools," he had ever seen. As with Mark, an important issue for Travis was availability. Like those at Gull Lake, the labs at Comstock were nearly always booked and consequently not a real option, particularly for underpowered interns. "When I started," Travis claimed, "the computer labs were not made available to me."

Exacerbating the situation were the keyboarding and computer classes regularly held in the computer labs—a common situation—further restricting lab availability for other teachers.

In fact, over half of the survey respondents believed that their school simply did not have enough machines to meet the demands of their students. A recent study conducted by Market Data Retrieval, however, shows that Michigan schools have a 4.3 student-to-computer ratio, the same as the national average of 4 to 1 (Park 2). In addition, the Kalamazoo school district where many of the internship sites are located is committed to technology, and recently spent 7 million dollars improving technology resources and infrastructure ("KPS Technology Plan: 2003-2006" 1). While this certainly does not guarantee that every internship site was well-equipped, it might suggest that the problem of availability many interns experienced was not caused by the lack of computer resources in their schools but rather by the escalating demand for these resources.
In some cases, the problem of availability may have been caused or compounded by the support structure at internship sites. One source of support is the mentor teacher who supervises the intern. A small percent of interns (21 percent) said their mentor teachers were not eager to learn about technology. “Be prepared to modify,” wrote one intern on the survey. “Be prepared to instruct your mentor. Mine did not oppose [technology], but she did not embrace it either.” Another added that interns should be prepared “to deal with staff who know less than they do about new technology and resources available.” The resistance these interns encountered is complicated by the fact that the vast majority of interns (84 percent) believed they were more knowledgeable about technology than their mentor teachers. What interns perceived as unwillingness, then, may have been unfamiliarity on the part of the mentor teachers. Still, the majority of interns (52 percent) found their mentor teachers eager to learn about new technology. Overall, in fact, 74 percent of interns found the staff and administration of the schools supportive of technology.

Other important sources of support for interns are the media and technology specialists, those individuals whose job it is to operate the media center or supervise the computer labs. A significant portion of interns (47 percent) said that the school’s media or technology specialists were not readily available to help them integrate technology into their curriculums. Travis, for example, said he felt unsupported by the media specialists at Comstock, and claimed they gave preferential treatment to particular teachers. Other interns may have seen media specialists as gatekeepers more than resources. One intern advised upcoming interns to “Find out building protocol about technology and using rooms such as media centers. In my experience, it was always signed out before I could use it.” In some cases then, interns were unwilling or unable to take advantage of media and technology specialists. Again,
however, many interns did make use of these resources: 42 percent said that they
found media specialists readily available to help implement technology-based plans.

Despite the difficulties some encountered with mentor teachers or media
specialists, nearly all of these interns in this study (89 percent) were able to use some
form of technology to teach language arts skills. Both Mark and Travis, for example,
incorporate WebQuests into their literature curriculums. After one attempt that was
aborted when the school server crashed unexpectedly, Mark successfully used the
*Macbeth* WebQuest he designed in English 480. Similarly, Travis used a WebQuest
based on *The Crucible* that he found archived on the WebQuest Page. According to
the survey, other interns used their own WebQuests, existing WebQuests, listservs,
instant messaging, word processing, and Web-based research projects into their
curriculums. In fact, only two of the nineteen interns surveyed said they did not use
technology in any of the lessons they had taught, though they did assist with
technology-based lessons taught by their mentors.

The problem of availability, however, should not be dismissed. Repeatedly
identified by interns as a major frustration, this issue has practical implications for the
way technology-enriched methods courses are taught. Instructors in such courses
should provide specific strategies for coping with availability problems. More
specifically, instructors should teach their students how to long-term plan, use
existing support structures, and become advocates for wireless resources that alleviate
availability issues. These strategies will prove useful for students not only during
their internships but in their future careers.

First and most obviously, successful technology integration depends on long-
term planning. This skill is generally important for every teacher, but it becomes a
crucial strategy for intern teachers confronted with resource availability. For them,
long-term planning involves making early contact with their mentor teacher, obtaining critical resources such as course syllabi and academic calendars, collaborating with the mentor teacher to determine where a technology-based project may best fit, and reserving the necessary computer lab time early. Ideally, for example, Travis could have contacted his teacher the semester prior to his internship, discovered that *The Crucible* was a major component of the American Literature class he will be teaching, designed a technology-based assignment in his methods course, and ask his mentor teacher to reserve three days in the lab for the project. In this scenario, the methods instructor would serve as a facilitator between the pre-service teacher and the in-service teacher, ensuring that each had the necessary information.

Of course, there are many complications in this scenario: in large universities, intern teachers are often placed only weeks prior to student teaching; in-service teachers may be unwilling or unable to share their curricular material; methods instructors may be overwhelmed trying to coordinate communication between their students and teachers in the field. Still, a few interns recognized long-term planning as a potential solution to the problem of availability. "Have prospective interns do a WebQuest on a novel that they will be teaching during their internship," wrote one. And Mark commented in his interview:

> English 480 is really about teaching students how to take established curriculum and activities and make those into technology assignments, to transform assignments that way... I know most schools are more than happy to give out copies of their curriculum. If we can take some of those actual curriculums, and say, 'okay... here's their curriculum for American Ideas and Writing, now where could you establish a technology assignment?'

> The Web offers one possible way of making long-term planning easier for pre-service teachers. Methods teachers could construct an electronic archive that contained syllabi and materials from schools in their surrounding district. Even if
students did not know where they were interning, they could still examine representative syllabi from likely schools and design the technology assignments required in their methods course around works frequently taught in local schools. Creating such an archive is one goal of the Teaching English Through Technology Web site hosted by Western Michigan University (http://www.wmich.edu/teachenglish). This site was designed to support the Web-based technology projects of English language methods classes.

Another strategy for coping with limited availability involves using the support resources of media and technology specialists. In recent years, such specialists have become increasingly present in schools at every level. Typically, every school has individuals specifically trained to assist with technology-related issues, including not only matters of hardware and software, but also curricular concerns. Media specialists are a particularly useful resource: their many responsibilities include researching and subscribing to electronic databases, locating Web resources for faculty and students, ordering new media such as DVDs and CD-ROMS, and arranging library and laboratory schedules. More than any other staff member, a media specialist typically possesses an intimate knowledge of the technology offerings of her school. When computer labs are booked, she may be able to supply alternative suggestions or redistribute resources to accommodate more students. Interns interested in using technology should become acquainted with media specialists, a point teacher educators could stress.

Lastly, the problem of availability can be addressed by advocating wireless technology. As we have seen, schools are typically equipped with updated computers and fast Internet connections, but the escalating demand for these resources is straining computer labs and media centers to the breaking point. To meet this
demand, both Gull Lake and Comstock recently added entire computer labs and increased the number of machines in their media centers. Should the demand for computers continue to grow, schools like Gull Lake and Comstock will need to build new structures to house computer labs, or convert existing classrooms into labs, two very expensive options. Wireless technology, however, could address availability issues at both schools. First, two or three laptop carts would mobilize computer technology, allowing teachers to bring computers into their own classrooms. As a result, there would be more available time in labs. In addition, laptops carts can be moved to multiple classrooms between classes, cutting down on wasted time in computer labs and decreasing hallway traffic.

At Gull Lake and Comstock, portable laptop carts could even serve as wireless hubs, a less expensive and less involved wireless alternative to installing multiple access points throughout the school. This would provide Internet access to classrooms that previously lacked it, particularly at Gull Lake, where the chances of finding an Internet-connected computer in a classroom was "hit or miss," according to Mark. The addition of multiple laptop carts, perhaps financially infeasible for Gull Lake and Comstock, would make technology even more accessible to all teachers, including temporary interns like Mark and Travis. Moreover, as laptop prices continue to drop, more students will be able to bring their own to school, connecting to the wireless hub and further reducing availability problems.

Consequently, methods instructors should teach their students to be advocates for wireless technology. Granted, it may be unusual for an intern to have an opportunity to influence her school's technology policy or budget. Interns with training in wireless technology, however, might help the school envision where technology integration is going. In addition, as more and more schools supplement or
replace currently overcrowded computer labs with wireless laptops, the most marketable teachers will be those who can assist in this upgrade. There are federal, state, corporate, and non-profit grants specifically dedicated to improving the technology resources and infrastructure of public schools. Hundreds of these involve supplying schools with wireless solutions. The Beaumont Foundation of America, for example, supplies state-of-the-art wireless technology to public and private schools with low-income populations. In 2003, Beaumont awarded twenty-one $75,000 grants to eligible schools across the nation (http://www.bmtfoundation.com).

Michigan is one of only three states nationwide using federal or state money to provide wireless technology to schools (Park 2). In 2003-2004, The Freedom to Learn Grant program awarded over six million dollars to thirty eligible schools ("State Awards Grant Funding" par. 1-2). Exploring these funding opportunities could be a critical part of a technology-enriched methods course.

The most important strategy for dealing with limited or changing availability of technology resources, however, is to create assignments that adapt readily to differing technology contexts. This is true for both classroom teachers and methods instructors. In technology-enriched courses, methods instructors should model and assign projects that are both valuable and flexible enough to be used by pre-service teachers during their future internships. Two projects central to the English 480 curriculum are the classroom Web site and the WebQuest. The second question of this study focuses on how well these technology projects served pre-service teachers during their internships.

Flexible Products, Flexible Skills: Dave and Mark

The first assignment this study explores is the classroom Web site. A central
part of my English 480 curriculum, the classroom Web site owes its position in the course in part to a three-year 1.2 million dollar PT3 grant awarded to Western Michigan University in 2001. A federal grant, PT3 (Preparing Tomorrow’s Teachers to use Technology) is dedicated to addressing “a growing challenge in modern education: nearly all elementary and secondary schools are now wired to the Internet, but most teachers still feel uncomfortable using technology in their teaching.” Since 1999, it has awarded over 400 grants to educational institutions, funding a wide range of technology projects that include faculty development, course restructuring, and online teacher preparation (“Preparing Teachers” pars. 1-3). Western Michigan University used the PT3 funding for a variety of course innovations and faculty development projects. The College of Education, for example, used a portion of the grant to implement electronic portfolios in its Technology for Elementary Education course and to fund joint projects with both ThinkQuest and Taskstream, two online curriculum resources for pre-service and practicing teachers. In conjunction with the PT3 program staff, the Office of Information Technology developed a server for student homepages, where pre-service English language arts teachers published their own classroom Web sites. The classroom Web site project was facilitated and supported by the co-author and co-investigator of the PT3 grant, Dr. Allen Webb, who had previously used classroom Web sites in his 480 class.

English 480 instructors believe that the classroom Web site is an important tool for future educators, not only for English Language Arts but across all disciplines. In every discipline, the classroom Web site allows students to access helpful links, check homework assignments or class requirements, communicate with their teacher and classmates through threaded discussions, publish their own Web pages, and engage in Web-based learning activities. Interested administrators and
parents may use the Web site to examine the sample lesson plans, teaching philosophy, résumé, and electronic portfolio the teacher has posted. This classroom Web site assignment also reflects national trends: the National Center for Educational Statistics reports that 75 percent of public schools had a Web site in 2001. While no statistics on individual classroom Web sites are currently available, the school Web sites often contained material that could be tailored to individual classroom sites, including information for parents (64 percent), educational links for students (61 percent), presentation of student work (47 percent), and homework updates (21 percent).

In the discipline of English language arts, a classroom Web site serves as a focus point for utilizing the Web in meaningful ways. In literature classes, the site encourages students to use the Web as an *electronic encyclopedia* and an *electronic environment*, by linking to text archives, literary scholarship resources, threaded discussion forums, interactive environment such as MUDs or MOOs, and more. The classroom Web site can also provide links for composition classes, providing students with new publishing opportunities, new forms of electronic discourse such as wikis, ezines, and blogs, and the rich writing resources available on the Web.

Not only does the classroom Web site assignment yield a valuable final product for future teachers, it also fosters important skills that teachers will need to possess for their own and their school’s sake. According to a recent Market Data Retrieval study, 15 percent of all Michigan public schools have at least half of their teachers identifying themselves as beginners. This number increases in high-poverty schools (27 percent) and high-minority schools (44 percent), again underscoring the reality that digital equity is an issue of expertise rather than resources. Pre-service teachers trained in Web design will be a valuable asset to their faculty, as more and
more teachers are required by district and state standards to publish their own classroom Web sites. Moreover, Web design is an important skill for K-12 students to learn, as technology skills become formalized part of state content standards and even standardized assessment tests. Currently, only three states—New York, North Carolina, and Utah—include technology on their state tests (Park 2), but this is likely to change in the future.

Pre-service teachers typically enjoy creating classroom Web sites, though some experience initial frustration with Dreamweaver, the challenging software installed on laptops in the EEL. Most, however, overcome their frustration and publish aesthetically pleasing and informative sites that they are eager to use in their own classrooms. As shown in Figure 9, students are encouraged to include a professional page, listing their credentials, résumé, and references; a parent page linking to school policy, class requirements, and other resources; a student page, with classroom rules, links to resources and Web projects, and homework updates; and a personal page for images, favorite links, and other pertinent information. In my course, classroom Web sites are evaluated on their content, design, navigability, and credibility.

Dave, the case study participant whose classroom Web site is pictured below, is an affable individual with seemingly limitless reserves of energy. His original Web site, now updated to reflect his new position in Farmington Hills East Middle School, was linked to Web resources about his various passions, biking, hiking, and kayaking among them. He displayed similar enthusiasm for technology. And unlike Mark and
Figure 9. A Classroom Web Site

Travis, Dave interned at a school brimming with technology resources. The school, Maple Street Middle, has, with the aid of a hefty federal grant, been recently transformed into a magnet school focused on the arts. A significant part of the grant funded technology. Maple Street recently built a new computer lab featuring twenty Macintosh G4 multimedia machines, each fitted with an accompanying piano keyboard and music composition software. This new lab adds to the “computer arsenal” Dave described in his anticipatory essay: a media center with fifteen fairly new machines, plus two computer labs with thirty computers each and a shared broadband connection. Maple Street also has two laptop carts with fifteen laptops each. The carts act as wireless hubs, providing a short-range wireless network while Maple Street considers expanding to a fully wireless campus.
Maple Street has a diverse population, almost equally split between white students and students of color. Many of these students are poor and come to school with little or no technology skills, according to Dave. With a population of 450 students, however, Maple Street has a lower student-to-computer ratio than either Gull Lake or Comstock. This setting seemed a perfect fit for Dave, whose enthusiasm for technology is typical of his energetic approach to teaching and learning. “This could be a marvelous opportunity to strut my stuff,” he wrote in his anticipatory essay, “and land myself a great job in the process!”

Fortunately, Dave found his mentor teacher to be very interested in technology. She was especially impressed with the classroom web site Dave designed in English 480. “In fact,” Dave wrote in the threaded discussion, “she suggested that I establish and maintain a classroom Web site for each of her five English classes! How appropriate!” Dave’s mentor also proposed that the classroom Web site could be used to post homework assignments, publish exemplary student work, report on extra-curricular activities, and include personal information of interest to students and parents. She also hoped Dave would teach her how to design her own Web site. Her vision of the classroom Web site reflected the original goals of the English 480 assignment, which had stressed both a functional final product and marketable skills. Dave even saw possibilities beyond this: “I could also put on after-school workshops that instruct and encourage students to learn Web design. What could be more valuable to young middle-schoolers than to design and maintain their very own Web sites!”

Despite his high expectations, however, Dave found that his classroom Web site was not useful very during his internship. Strikingly, 63 percent of the surveyed interns reached the same conclusion, disagreeing or strongly disagreeing with the
statement, "My classroom Web site was a valuable tool for my students during my internship." Another 37 percent were undecided on the issue, and most tellingly, not a single intern (0 percent) agreed or strongly agreed with the statement. In addition, 74 percent of interns made no changes to their classroom Web sites during their internships. In summary, then, almost three-quarters of participating interns set their Web sites aside during the semester, while the 26 percent who did make changes still did not consider their modified Web site to be a valuable teaching tool during their internships. Reflecting the experience of many, one intern wrote "Web site design took up way too much time [in English 480] that could have been better spent."

Why did interns fail to integrate their classroom Web sites, crafted so carefully in English 480? The best explanation lies in the purposes of the assignment, which are long-term rather than short-term. One of the goals of the assignment was to yield a valuable product—a functional classroom Web site. To be truly useful, however, a classroom Web site should contain specific content such as reading lists, classroom rules, and curriculum-based assignments. Since few pre-service interns have access to such material prior to their internships, implementing their Web site would mean updating it with actual content provided by the mentor teacher. Realistically, adding this sort of information during the internship was too much work, given the other demands of student teaching and short shelf life of the any added content.

In addition, internship sites rarely possessed the Web design software necessary to update the sites. The majority of interns (68 percent) said that Web design software was unavailable at their school. And though Dreamweaver is available in multiple labs at Western Michigan, few pre-service teachers spend time on campus during their internships. Since interns could not access software to update their sites, the sites became temporarily irrelevant. On the positive side, 89 percent of
interns said they planned to maintain their classroom Web sites in the future. This suggests they understood the classroom Web site as a professional tool, potentially useful in the long term, as they found jobs and began teaching, but not valuable in the short term during their internships.

A second and equally important goal of the classroom Web site assignment was to develop technology skills that pre-service teachers could use in their future careers. While this is again a long-term goal, its achievement might be measured by the success most of the pre-service teachers experienced in integrating some form of technology into their internship classrooms. While classroom Web sites were laid aside, the skills learned in creating those sites may have transferred to other projects, such as doing Web research or creating a WebQuest. In this sense, the classroom Web site assignment cannot be considered a failure, even though it was not immediately useful for interns.

Of much more immediate value to Dave and Mark was the second technology-based assignment in my section of English 480: the literary WebQuest. As discussed in Chapter Four, the literary WebQuest harnesses the encyclopedic resources of the Web, while providing a framework that guides learners through a specific inquiry-oriented task. This assignment asks students to design and publish a literary WebQuest, again in hopes that the assignment will yield a functional product and teach important technology skills.

Dave hoped to use the WebQuest he had developed in English 480. Based on the *Odyssey*, the WebQuest required students to create their own mythologies. It posited that students had been selected to explore a particular region of the world by ship. Students were divided into crews, and crew was further divided into individualized roles: the captain, the navigator, the helmsman, the interpreter, and the
scientists. Using Web resources, students researched their geographical region, with each crew member recording or creating specific information about its inhabitants, creatures, geography, and more. Dave was proud of his *Odyssey* WebQuest, but knew it might not fit into the existing curriculum. In his anticipatory essay, Dave wrote that the WebQuest might "be modified to fit a travel theme or something of that nature."

Instead, Dave ended up designing a new WebQuest-like activity for a unit about the death penalty, a topic that his mentor already taught. Like his *Odyssey* WebQuest, Dave's death penalty activity was based on student inquiry, collaboration, and carefully controlled Web research. The activity centered on a single but comprehensive Web site co-published by the Michigan State Comm Tech Lab and the Death Penalty Information Center (http://deathpenaltyinfo.msu.edu/index.html).

Among its many components, the site features interactive demographic maps that illustrate how death penalty administration varies across the United States. Dave asked his student to use these maps to answer a series of questions about the death penalty (e.g. "How many states legally kill mentally retarded criminals?" "How many states allow the execution of juveniles?" "Choose a state and compare the number of black Americans who are on death row with the number of white Americans.") After three periods in the computer lab answering these questions, students held a debate, then wrote position papers on the death penalty. In the threaded discussion, Dave called the project a success:

> The death penalty unit is finally finished. After immersing the children in loads of facts, figures, and opinions, the culminating project was their first ever fact-based research paper! They turned out wonderfully. The kids expressed strong and passionate (as well as well-informed) views regarding the death penalty. It was awesome.

Mark had similar success with his WebQuest based on *Macbeth*. Unlike Dave, Mark was able to use the WebQuest he created in English 480. Early in the
semester, he wrote on the threaded discussion, “Just wanted to relay some good news. I just received approval from my mentor to use my WebQuest this semester. Actually, he liked it so much that he is going to use it also.” Creatively conceived, Mark’s WebQuest asked students to replace the three weird sisters of the play with other supernatural creatures drawn from Renaissance-era mythology. Working together in groups of two or three, students were to research these creatures on the Web, selected appropriate choices, rewrite three critical scenes from the play, and design accompanying artwork. Mark briefly explained the idea, then took his approximately thirty students to the computer lab. Once there, however, Mark encountered a difficulty that was not altogether unexpected. Mark explained in the interview:

I had [the WebQuest] on my Western account, and it crashed within the first five minutes when the class went into the lab to use it. Luckily, I thought of that before and was concerned about it so I transferred it—I have the WebQuest on two different pages, and so I transferred everyone over to my secondary page, and it worked fine. Had I not thought of that the week before, because of the traffic issues, we would have been dead in the water.

Mark’s resourcefulness ultimately saved his WebQuest project from failure. Over the next few days, both of his British literature classes worked on the Macbeth WebQuest. The final result, as Mark attested in his interview, was an overall success:

There were some groups that got really into and really did a lot. I mean, there were groups turning in stacks of almost 100 pages of assignment. All the research that they had done, the artwork that they had done, their rewrites, and practice rewrites. So, some of the groups really got into it.

The WebQuest worked for more than just Dave and Mark. Of the surveyed interns, 52 percent reported using their original WebQuest, a modified version of their WebQuest, or a new WebQuest during their internships. This number represents only a slim majority, but gains significance in contrast to the number of interns (0 percent)
who found the first technology-based assignment, the classroom Web site, valuable during their internship. “I used a WebQuest in my 10th grade English class,” wrote one intern, “They read A Separate Peace by John Knowles and completed a time capsule WebQuest. This integrated history into the English classroom.” Another wrote that she “used my WebQuest on ‘The Yellow Wallpaper’ with my 9th grade Honors Students.” In fact, 47 percent of interns suggested that the WebQuest was the most intellectually meaningful and enjoyable technology-based activity for secondary students.

What lessons might methods instructors derive from the success of the WebQuest assignment? As they implement technology-based projects into their methods courses, instructors should consider both the final product the assignment yields and the skills that the assignment emphasizes. In both regards, technology-based projects should emphasize flexibility, generating products that are readily modified for a variety of technology settings while developing the essential skill of adaptation.

As a final product of a technology-enriched methods course, the WebQuest is flexible in a variety of ways. First, it stresses collaboration, so it can work in settings where limited resources force students to share computers. Bernie Dodge provides a number of strategies for using WebQuests in these settings:

One to ten computers can be used as learning stations for students to cycle through while others work offline. If the only access to the Internet students have is by a scheduled and limited set of lab periods, then a well-organized frontloads that lab visit . . . so students are prepared to use lab time well. If computers don’t have Internet access, students can access Web archives created on another computer and saved on their hard drives. (“Five Rules” 7).

And while the WebQuest works best on the Web, at least one intern adapted her WebQuest into a paper-based learning activity, when computer resources were not
available. "I wanted to integrate technology," she wrote, "but it was nearly impossible. I used a WebQuest, but I had to make hard copies of everything and go from there."

In addition, the WebQuest is easy to modify, as evidenced by the 36 percent of interns who reported adapting their existing WebQuest to fit a particular curriculum. WebQuests can used for long works like novels, or shorter works like essays and short stories. They can take as much time as two weeks or as little as a day. Furthermore, while the interns did design their WebQuests using Dreamweaver, software is not a prerequisite for WebQuest construction. Web sites like Filamentality and the WebQuest Page, for example, let teachers create WebQuests from a range of pre-existing templates. Methods instructors might encourage students to use pre-existing templates for their final WebQuests, so they can be modified from any location with Internet access.

Given the difficulty of incorporating technology into already-packed curriculums—one intern wrote that "It is extremely hard at times to fit in a new assignment or to transform an existing assignment into a technologically advanced assignment"—the WebQuest is a highly flexible tool, adaptable to a wide range of situations. In contrast, the classroom Web site assignment yields a final product that is more difficult to use. To be valuable during the internship, the classroom Web site requires advanced access to course content, regular upkeep, and specialty software, making it impractical for the majority of interns.

Dave and Mark's experiences with WebQuests point to a second lesson for methods instructors. Dave, as we have seen, was able to transfer the skills he learned while developing his Odyssey WebQuest to a new WebQuest-like activity, his death penalty assignment. Mark understood that Web servers frequently crash when they
receive too much traffic, and developed a backup plan for this contingency. Both of these field experiences suggest that flexibility is one key skill that methods instructors should teach. An asset for teachers in any discipline, this skill is particularly important for those who would enrich their teaching with technology, the most reliable of which is still prone to unexpected glitches. Stories of the unexpected surfaced again and again in the intern survey:

I designed a WebQuest but a snow day cancelled the lesson so we lost our time in the lab that week.

The only computer in our room was for the use of the teacher. We had a set of wireless computers, but they were on loan through a grant and those teachers who applied for them had full access at all times. I tried to use them but no dice.

I was amazed at some of the simple things that I had to help them with. I think all the ideas were great that I learned in class, however the idea I had was that all the students would easily be able to accomplish the task. However, this is not the case most of the time.

Keep an open mind and try to do the best that you can. Many of the kids I worked with had very limited knowledge of computers, and the library's computers took approximately 10 minutes to search, and they were not allowed to print, and they could only use the computers for school purposes. It's an uphill battle!

Servers crash, software malfunctions, files get corrupted, computer viruses paralyze networks: all of these are very real possibilities for teachers intent on using technology. The best Web-based assignments for methods courses, then, are those that give pre-service teachers the capacity to deal with the unexpected. In this regard, lightweight, modifiable, short-term projects are finally more valuable to pre-service teachers than labor-intensive, software-dependent, long-term projects. In addition to generating highly functional products, such assignments develop the technological flexibility future teachers need.

At the same time, methods course assignments should make interns feel more
comfortable with integrating technology, giving them the confidence they will need to use it effectively in their own classrooms. Technology apprehension remains an issue for significant numbers of both pre-service and in-service teachers. The National Center for Educational Statistics reports that in 1999, only one-third of teachers felt well prepared or very well prepared to use computers and the Internet for classroom instruction ("Teachers' Tools for the 21st Century" 75). Indeed, this finding was one of the chief impetuses for the PT3 grant, which was initiated in 1999 to fund technology instruction programs for teachers in training (Dean par.2). At Western Michigan University, the PT3 grant has done much to address this problem, but technological preparedness remains an important issue today. Hence, the last question of this exploratory study asks how interns who were trained in the technology-enrich methods course saw themselves using technology in the future.

A New Attitude Towards Technology: Suzi

Essentially, this question explores how interns trained in a cutting-edge environment see themselves using technology in their future classroom. The story of Suzi, an enthusiastic young woman with a broad smile and an easy laugh, provides one answer to this question. Suzi interned at Loy Norrix High School, an ethnically diverse school of over 1200 students. Loy Norrix has technology resources similar to those at Gull Lake and Comstock. At the time of this study, it lacked computers in its media center, but the school does have two larger labs with forty to fifty relatively new machines in each. Each classroom has one or two computers that share a broadband Internet connection with the labs. In addition, the yearbook and newspaper staffs share twenty brand new Macintosh computers. Like Gull Lake and Comstock, Loy Norrix has no wireless resources. Similarly, availability at Loy Norrix also
remains a problem. “With so many teachers in the building, with only two computer
labs, with such a large school as Loy Norrix, it was extremely hard . . . You had to
have your act together to get in there,” Suzi said in her interview.

With availability so limited, Suzi was unable to use her classroom Web site
and her A House on Mango Street WebQuest, though she changed the latter into a
paper-based assignment and passed it along to another teacher using the novella. Suzi
did bring her classes to the lab to work on a research report, a project she scheduled
nearly three months in advance. The class used the World Wide Web to research
potential careers, and wrote their rough and final drafts using word processing
software. During this process, Suzi noticed her students were adept at browsing the
Web, but less so in using Microsoft Word. To her surprise, much of their lab time was
spent learning basic tasks like opening a file or setting page margins. Overall, Suzi
judged the research project to be valuable, but wished she could have done more with
technology:

It was just so limited. I would have loved to have spent more time in
the actual computer center, maybe even show the students my
WebQuest, showed them my Web page, but it was just so restricted as
to when we could get in there.

Even with these disappointments, it would be hard to call Suzi’s story
anything but a success. In her anticipatory essay, Suzi provided excerpts from the
journal she kept during the semester. The entries she included reflect her own journey
from apprehension to competence and confidence:

Technology is something I do not understand or desire to understand. I
cannot even program my VCR. I do not desire to use technology in my
classroom because I have learned just fine without it in my experience.
I’ll find alternatives. Today, I could not even open the stupid program.

October 14, 2002.
What I know about Dreamweaver: how to open it, where the undo
button is, how to change colors, how to connect, my login name and password, how to exit Dreamweaver, and how to change the font size. What I want to know: how to scan pictures, place images on the screen, add sounds, add motion and use buttons. I think that I am beginning to understand some things . . . I am no longer lost. Maybe I could use something like this in the classroom.

December 4, 2002.
Somewhere throughout the course of the last fifteen weeks, I have found myself enjoying making my webpage for this class. In the beginning of the class, I did not even know how to open Dreamweaver—but now I find myself helping other students (a feat that I never thought would be possible) . . . For me, the more help I receive and the more I work with Dreamweaver, the more it has become like second nature . . . I feel I could definitely use this webpage, especially my WebQuest, in my classroom.

By the conclusion of the semester, Suzi found that she mastered Dreamweaver to the point where she could teach others, which she often did during workshop time in the EEL. More importantly, Suzi believed English 480 in the EEL had prepared her to use technology in her internship and her future career, a conclusion reached by 79 percent of surveyed interns. She envisioned her Web site playing a role in her future English language arts classroom. In her interview, she said that her Web site would become a place where her future students could access texts unavailable in anthologies, find additional information on writers and their works, and catch up on missing homework assignments.

After her English 480 and internship experiences, Suzi also envisions herself as a professional resource for her future colleagues, as did 74 percent of the interns participating in this study. In her interview, Suzi recounted how her mentor asked her to show other Loy Norrix teachers how to make their own Web sites. “A lot of teachers at Loy Norrix,” her mentor informed her, “would love to have their own Web page!” With her new technology skills, Suzi believes she could show these teachers exactly how to create and use a classroom Web site.
Her success can be attributed to at least two factors. First, Suzi worked hard throughout the semester to transform her own attitude. She spent long hours in the Information Technology Lab, a special instructional lab on campus where she received one-on-one instruction in Dreamweaver and Photoshop. Many English 480 students spend at least a few hours outside of class in the IT lab, designing their WebQuests and classroom Web sites. By her own count, Suzi spent at least 24 hours in the lab.

Secondly, the EEL is uniquely suited to address issues related to attitude and apprehension. A meta-analysis conducted by the Center for Applied Research in Education Technology found that the most effective strategies for increasing teacher confidence and motivation to use technology include being mentored by an experienced teacher in a specific content area, having sufficient time for learning and practice, and collaborating with peers on technology-related projects (Cradler 51). In its resources and curriculum, the EEL meets these conditions. Methods courses like English 480 are taught by instructors who are interested in modeling effective technology integration for the discipline of English language arts; a significant portion of class time is devoted to workshopping; and the highly mobile laptops and furniture facilitate student collaboration on technology projects. Ultimately, the classrooms like the EEL may be the best environment for pre-service teachers to increase their confidence in technology use.

At a job fair in the spring of 2003, Suzi brought a stack of thirty CDs to distribute to potential employers. On each disk, Suzi included her resume, classroom Web site, lesson plans, writing samples, letters of recommendation, and WebQuest. “I even had directions,” she adds with a smile, “because when I started [English 480], I was completely clueless about using the computer. And so, I had an idiot’s guide.”
Not surprisingly, Suzi landed a job, a full-time position at Mishawaka High School in Indiana. Though her technology skills alone did not gain her this position, her story remains a testimony to the importance of technology training.

Conclusion

The first four chapters of this dissertation establish a theoretical framework for integrating the World Wide Web into secondary literature classrooms. I began by examining two central concerns of literature instruction: concern for the text and concern for the reader. These two concerns, manifested in critical theories and practical pedagogies, are central to the way we teach literary reading and to way we integrate the World Wide Web into our literature classrooms. Conceptualizing the Web as an electronic environment aligns with reader-oriented literature instruction, while conceptualizing the Web as an electronic encyclopedia aligns with a text-oriented literature instruction. Drawing on theory, my argument is rooted in my own practice as a high school English teacher, and relies on two successful technology experiments—the *Brave New World* MOO and the *Heart of Darkness* WebQuest.

As a literature methods instructor in a technology-enriched classroom, I am shaped by my past experiences with technology. My teaching is informed by the model I have detailed in this dissertation, because I believe that understanding the Web as an environment and an encyclopedia helps my students to see connections between Web technology and literature instruction. I also understand, however, that the future teachers in my literature methods class need more than just a model. They will encounter practical realities—they will struggle with resource availability, cast about for Web-based assignments that work, and even question their own ability to integrate technology in meaningful ways. This final chapter has attempted to learn
more about these realities, in hopes of improving technology-enriched methods courses like English 480. Addressing these practical concerns allows the meaningful technology integration described in this dissertation to occur. Finally, teaching a technology-enriched literature methods course gives me a way to disseminate what I have learned about technology beyond the walls of my own classroom, as English language arts teachers trained in my course enter the field, where they will teach literature to a new generation of readers.
Appendix A

Human Subjects Institutional Review Board Approval Letter
Date: January 22, 2002

To: Allen Webb, Principal Investigator
    Robert Rozema, Student Investigator for dissertation

From: Mary Lagerwey, Chair

Re: HSIRB Project Number 02-01-11

This letter will serve as confirmation that your research project entitled "Synchronous and Asynchronous Environments in the Secondary Literature Classroom" has been reviewed under the **exempt** category of review by the Human Subjects Institutional Review Board. Before final approval can be given the following concerns should be addressed and revisions submitted for HSIRB review:

1. Please include a description of the school policy regarding whether or not parental permission is required when research is conducted on student homework.
2. Your informed consent process should include an assent from students. This would be a process of informing the students that, with their consent, their schoolwork will be used as data in a research project. Students who choose to participate should sign a document saying they consent to having their assignments used for this research project.

Please submit one copy of the above changes in writing to the HSIRB, 251W Walwood Hall (East Campus). **Remember to include the HSIRB project number (above) and to mark the changes within the document.** To avoid delays, please do not send revisions addressed to me. **Revisions should be submitted within the next month.**

**Conducting this research without final approval from the HSIRB is a violation of university policy as well as state and federal regulations.**

If you have any questions, please call the research compliance coordinator at 387-8293.
Appendix B

Human Subjects Institutional Review Board Approval Letter
Date: January 27, 2003

To: Allen Webb, Principal Investigator  
   Robert Rozema, Student Investigator for dissertation

From: Mary Lagerwey, Chair

Re: HSIRB Project Number 03-01-11

This letter will serve as confirmation that your research project entitled “Translating Technology Talk into Effective Technology Integration: The Wireless lab and its Effects on New Teacher’s Use of Technology” has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: January 27, 2004
Appendix C

The *Brave New World* MOO: Room Descriptions
Rooms I created

----Coffee Shop----

You are in a coffee shop. There are several comfy chairs here, a few tattered couches, and a scattering of tables. On one of the tables, a few books rest. Among them is a copy of Brave New World by Aldous Huxley. You may enter this book by typing "in." Otherwise, you may stay here to talk. Conversation topics to consider: Are you enjoying the MOO experience? What is rewarding or frustrating about it? Is it enriching the experience of reading Brave New World? Why or why not? You see a coffee bar here.

----Main Lobby----

Welcome to the Brave New World MOO. You are in the main lobby of the London Center for Hatchery and Conditioning. The room is large and industrial looking, with polished green marble floors and stark white walls. Sitting at a large metallic desk in the center of the room is a Beta-minus receptionist. There is also a large bulletin board on the east wall. Exits include an elevator to the west and a hallway to the east. To the south, you see an indoor bumble-puppy court. You see a receptionist and a bulletin board here.

----Hallway----

The hallway is long and narrow, but exceedingly well lit. It leads east to a door labeled Fertilizing Room: Authorized Technicians Only and west to the Main Lobby.

----The Fertilizing Room----

The Fertilizing Room is an enormous room on the ground floor that faces north. It is cold, and a harsh thin light glares through the windows on the north wall. All around is the glass and nickel and bleakly shining porcelain of a laboratory. There are at least twenty-five workers here, all wearing white overalls, their hands gloved with a pale corpse-colored rubber. The light is frozen, dead, a ghost. Yellow microscopes line the tables. To the south, a door leads to the Bottling Room, and a hallway opens to the west. You see workers and microscopes here.

----The Bottling Room----

The Bottling Room is all harmonious bustle and ordered activity. There are no workers here: the room appears to be entirely automated. A conveyer belt runs through the middle of this room. Hundreds of bottles travel down the conveyer belt, while machines work to line them with fresh sow's peritoneum, already cut to size.
in the Organ Store in the sub-basement. Mechanical bottle-liners reach out robotic arms, take the peritoneum, insert it in a bottle, and smooth it down. There is a staircase labeled Basement on the west wall and a door labeled Fertilizing Room: Authorized Technicians Only on the north wall. You see a bottle here.

----The Staircase----

A staircase lit only by a faint red glow. It leads up to the Bottling Room and down to the Embryo Room.

----The Embryo Room----

The darkness of the Embryo Room is visible and crimson, like the darkness of closed eyes on a summer's afternoon. The bulging flanks of row on receding row and tier above tier of bottles glint with innumerable rubies, and among the rubies move the dim red specters of men and women with purple eyes and all the symptoms of lupus. The hum and rattle of machinery faintly stir the air. There is an elevator to the west, two sliding doors to the south, and a staircase leading up to the east.

----Social Predestination Room----

An enormous room the size of a soccer field, with a high vaulted ceiling and sterile white walls. Scores of Beta plus secretaries scurry from filing cabinet to filing cabinet, opening drawers, pulling papers, and shutting them again. You notice that many of them are busy affixing labels to the innumerable bottles traveling slowly on a conveyer that runs down the center of the room. Sliding doors to the north lead to the Embryo Room.

----The Lift----

This elevator is operated by an Epsilon semi-moron, clad in Epsilon black and looking rather sullen. "What floor?" he croaks as you enter. You have access to the Basement (b), the Main Lobby (m), the Psychological Conditioning Center (5), the offices suites (28), and the roof (35).

----The Neo-Pavlovian Conditioning Room----

A large, bright room, lit by sunshine from a huge window on the southern wall. Half a dozen nurses, dressed in sterile white uniforms, are setting bowls of roses and brightly colored books on the floor. You see khaki-clad babies and lever here.

----Office Suites----

A hallway leads east to a small cluster of offices occupied by high-ranking
employees. Along the northern wall, the office of the Director of Hatcheries and Conditioning (2801), the Assistant Predestinator (2802), and Henry Foster (2803). Along the southern wall, a soma bar.

----The Office of the D.H.C.----

A spacious office, obviously personally designed by the most important employee of this center. The room is furnished with stylish pneumatic couches, perfume taps, and even a small feely theater built right in. Great tall windows line the northern wall, and a bearskin rug adorns the floor. Exit to the south.

----The Office of the Assistant Predestinator----

A square office nearly covered in data-laden printouts, some containing statistical information, others pie charts, and still others graphs and figures. On the southern wall, a huge monitor, flashing up-to-the minute news from around the world. Exit to the south. You see an exceedingly thick manual here.

----The Office of Henry Foster----

A small, immaculately ordered office with a window view overlooking the garden. On the northern wall, a large picture of Mustapha Mond, signed, “To Henry--Keep up the good work! Yours, Mustapha Mond.” On the eastern wall, a bookshelf stocked with manuals. The rest of the office is in apple-pie order. Exit to the south.

----Sammy Soma's----

A small soma bar, apparently designed for LHC executives. It is tended by a Gamma-plus male, neatly dressed in a viscose tuxedo. “What can I get you?” he asks amiably. To drink something from the bar, type drink whatever from bar. Exit to the north. You see a small soma bar here.

----The Roof----

It is warm and bright on the roof. The air is drowsy with the hum of helicopters and the deeper drone of planes. Stretching all around is blue sky. There are helicopter hangars to the east, and an elevator to the west.

----Hangars----

This is the storage spot for hundreds of helicopters. The hangars are staffed by a single Bokanovsky Group, a set of Delta-Minus males who are busy pushing helicopters onto the nearby helipad. The nearest helicopter is immediately north,
and there is an elevator to the west.

----Helicopter----

You are inside a helicopter, model number 042874, the Thunderbird. You may navigate this helicopter to Club Aqua (1), the Nightclub (2), the Alpha Center for Research and Development of Turbine Engine (3), and the Hospital for the Dying (4), or the London Center of Hatchery and Conditioning (5).

**Student-created rooms**

~~~~~Roof~~~~~

You find yourself on the roof of Club Aqua. You are surrounded by pristine blue skies filled with an extra dose of daily oxygen. A helipad is to the south and the lift is located to the north.

~~~~~Helipad of Club Aqua~~~~~

A helicopter stands ready and waiting. Two Delta attendants stand at attention, ready at a moment’s notice to service your machine. To the north is a lift.

~~~~~Lift~~~~~

An Epsilon attendant grins delightedly as you enter the brightly lit lift. You may go to the lobby (2), the pool (pool), or the roof (roof).

~~~~~Main Lobby~~~~~

You are in a spacious, atmospherically lit room with several pneumatic chairs and couches grouped about in it. The air has a pleasant aroma that is coming from the sweet-smelling plants in the corners. There is a bulletin board on the wall and a bookshelf in the corner. There are exits to the north to an elevator, south to a chapel, east to a Social Gathering Room, and west to the changing rooms. You see bulletin board here.

~~~~~Social Gathering Room~~~~~

You are in a room where Brave New World Citizens socialize. There is a soft glow of red light and a faint perfume of soma gas wafts around you. The purple carpet is plush and deep purple, your feet are soothed as you walk about. There are pneumatic couches scattered about and a dance floor serviced by a synthetic music plant. Around the north and east sides a balcony runs around the room. At the south end is a well-stocked bar. You may exit north to the balcony and west to the
lobby. You see a dance floor, a pneumatic couch, and a synthetic music plant here.

~~~Balcony~~~

You are on the balcony of the Social Gathering Room taking a break from the dim soma laced atmosphere inside. One story up, it is lined with a banister of brass surrogate. Plate glass windows separate you from indoors and around you lies the countryside. A helicopter passes over. You may exit south back to the Social Gathering Room. You see a soma dispenser and a lever here.

~~~Chapel to Our Ford~~~

You are in a fairly small, dimly lit, hexagon-shaped room. There is a circular table in the center with twelve chairs around it. At the head of the table is a small podium, with glowing buttons on it, and a metal T on the front. It is a console for playing synthetic music. In one corner of the room is a small, metallic refrigerator filled with bowls of soma-laced strawberry ice cream. In the center of the table is a large book of Fordism hymns. There is an exit to the lobby to the north. You see book and refrigerator here.

~~~Hallway~~~

You enter into a small hall covered in the color of khaki there are two doors labeled Men's Locker Room, to the south, Women's Locker Room, and a small window on the far wall to the west. There are doors to the east, south, and west. You see Window here.

~~~Men's Locker Room~~~

You enter a room doused with the smell of men's sexhormoned aftershave. You glance to the left and see rows upon rows of lockers with #s on them. You see over your right shoulder a couple of toilet stalls and a urinal. You also see a room to the far back of the locker room, to your amazement it is filled with some Vibro-Vac-Massage machines. On the bench in front of you is a bottle of some strange liquid. You see Bottle, Vibro-Vac-Massage Machine, and towel here.

~~~Women's Locker Room~~~

You enter a large room filled with the smell of sexhormoned perfume. Off to your left you see a vast number of lockers with #s on them. To your right you see a couple toilets in a small room. In another room next to the toilet room is a couple of sinks and showers, followed by a large mirror. On the far wall you see, with great amazement, a row of Vibro-Vac-Massage machines rest, ready and willing
to work their magic. On a bench in front of you is a stack of towels, fresh out of the wash. You see Towels and Vibro-Vac-Massage Machine here.

^^Nightclub roof^^

It is sunny on the roof, with a cool breeze blowing to the west. The air is empty with just the humming of passing helicopters and the sweet chirp of the music from below. Stretching before you is a skyline of large skyscrapers. There is a helicopter pad to the south, and an elevator to the north.

^^Elevator^^

The elevator is large and well lit. You hear soft music playing from the speakers on the ceiling, and see a panel with three buttons on the wall. From here you can go to the hallway on the first floor (1) and the dance floor on the second floor (2) and the roof (3).

^Hallway^^

The hallway is long, wide, and dimly lit. There are two doors on the west wall, the first room being the dining room (dr). The hallway also leads west to a second room called Bouvier's (sb). There is also a door to the east leading into the entertainment room. You also see that there is an elevator to the north.

^^The Dining Room^^

In the dining room there are long rectangular tables set with dishes and silverware. Around the table are chairs to sit on. Also on the tables are candles that are lit for the light in the room. There are 2 waiters on either sides of the room. The dining room has no restriction on castes, so everyone is welcome. The food that is served in the dimming room is prepared in the bar in the room next door. There are also menus located on the tables to order food from. Almost anything can be ordered that is imaginable. You can see 2 exits, one to the south to Bouvier's and one to the east to the hallway. You see table, a Delta waiter, and another Delta waiter here.

^^Bouvier's^^

You have entered Bouvier's. The room is fairly large, with a checkered black and white marble floor and white walls. On the south and east wall there is a soma-bar, with a large black marble counter. Along the counter there are several leather stools. Behind the counter you see a bar tender, serving soma beverages to customers. In the north east corner of the room there is a large television, broadcasting games of obstacle golf, and centrifugal bumble puppy. From the
speaker on the west wall you can hear the music playing from the upstairs dance floor. Exits include a door to the north leading into the dining room, and a hallway to the east. You see tv, speaker, soma-bar, and menu here.

^^Dance Floor^^

When you enter the room the band is in the left hand corner lit by blue and green spotlights. Different colored spotlights and a disco ball light the rest of the room. Along the top of the walls and draping from the ceilings are decorative pieces of cloth. Joining the cloth on the walls are intricately detailed posters with hypnopaeic sayings on them. Throughout the room you’ll see many people dancing to the music provided by the band. The band consists of a saxophone, guitar, drums, two trumpets, one keyboard, and a grand piano. As for those who need a break there are chairs positioned in groups that are spaced five chair lengths apart and equipped with mechanical muscle relaxers. Besides the chairs on the walls there is a table with lovely decorations on it. The exit is to the north for the rare few that want to leave. You see a table, some inviting chairs, the one-stop bar, a stage, and a flashing disco ball here.

-=Helicopter Landing for the Center of Turbine Engine Research=-

You look out into a large opening in the side of the massive building and step out onto the brightly light landing pad. Epsilon attendants scurry to secure various helicopters and a rather small delta is guiding incoming crowds towards the entrance. You gaze around at the massive size of the hanger and the variety of high priced helicopters that are present. From the looks of it, the owners of these helicopters are very important, not to mention well paid. You see an elevator to the north and your helicopter is back south.

-=Main Lobby=-

You step into an enormous lobby that is bustling with people. You notice that there are several couches throughout the room where people are conversing, and many of them experiencing the pleasant effects of soma. On top of all the commotion you can see a main desk at the center of the room. A fairly good-looking receptionist is sitting behind a large NOTICE. To the west you see a large silver sign above two large double doors that says -=Restaurant=-. To the east, you see a similar sign that reads -=conference room=-. The elevator is to the north. You see a notice here.

-=Conference Room=-

You walk into a surprisingly small room compared to the other rooms you have been in, but it is still good sized. There is a large window looking out onto the
courtyard. A large circular table fills the room and around it are many pneumatic chairs. At the back of the room is a large screen along with various charts and diagrams that seem to be about Helicopter performance levels for different castes and professions. A woman sticks her head in through the door and kindly asks you to return the main lobby to the west.

---Restaurant---

You walk into the delicious smell of roast beef and baked potatoes. Your mouth waters at the wonderful aroma and tantalizing array of food. There are several buffet tables set out, one for each caste, each filled with a different assortment of food. The tables are also segregated into different castes, with the Alphas on the far right and the Epsilons on the opposite side of the room. At the back of the room you can also see a vending machine for soma tablets. The exit back to the main lobby is to the east.

---Courtyard Entrance---

The winding walkway leads you through the large courtyard that is surrounded on all sides by the gigantic research building standing over fifty feet tall. The building is made up of jet-black steel with windows circling every floor. Busy workers can be seen from their offices on almost every floor, and they all seem to work in rhythm. There are benches made of marble along either side of the path where workers take time to relax. Trees and plants grow over the grassy around making the atmosphere very peaceful. Within this sanctuary you hear none of the city noises, only the quiet talk amongst employees. The sun peaks through only for a short while until it falls behind the enormous buildings walls. There is an elevator on the north wall and looking to the east the path leads into more of the courtyard.

---Courtyard---

Continuing along the path you come across a fountain spraying water over thirty feet into the air. Surrounding the fountain is a large pool or water containing many fish of all types, several with dazzling colors ranging from all shapes and sizes. More benches stood along side the path leading up to the fountain, but around the fountain there were tables and trash receptacles for the employees to take their lunch breaks at. In the grassy areas beyond the tables you can see alphas and betas playing games and conversing together. The path loops back toward the west where it rejoins itself near the elevator. You see a Fountain here.

~~~*Helipad*~~~

The sky is clear, free of any clouds, and the blazing sun beats down on the
asphalt creating an inferno. The buzzing of the helicopter propellers creates a constant humming in the air and a fierce wind creating the feeling of being in a wind tunnel. As you look from the roof you can see the Slough Crematorium. The helipad is filled with numerous helicopters of the same size. They are eight passenger vehicles that travel at speeds of two hundred miles per hour. If you are looking to travel to another location you can head south to a helicopter. To enter the lobby head north towards the stairs.

—*Lobby*—

You leave the helipad and make your way down the stairs to the lobby of the forty-five story Hospital for the Dying. As you enter the vibrantly colored room, you see a Beta-minus receptionist clad in mulberry, as well as colorful corridors to three other rooms. As the receptionist smiles cheerfully at you, an elevator door opens and a group of young Alpha school children are ushered through the lobby and down the hallway to a residence room. Chattering amongst themselves, they seem to be rather excited about making their first trip to the Hospital. To the north is the residence room, while a soma distribution room stands to the east. The path south leads back to the helipad. You see a receptionist desk here.

—*Residence Room*—

Coming through the vivid hallway, you enter a residence room, brightly colored and currently housing fifteen dying members of the World State. As a Beta-plus nurse attends to one of the patients, another is kept busy fielding questions from the inquisitive children. Most of the room's inhabitants are in a semi-comatose state, and the drone of an unattended television can be heard in the background. Over the murmur of the television you hear a sudden gasp, and then nothing. As one of the nurses wheels a bed out of the room, you realize that there are now only fourteen patients. North leads to a hearse garage and the lobby is to the south. You see a bed here.

—*Hearse Garage*—

You enter the brightly lit garage and see that it contains a dozen or more happily colored hearses. As a former member of the World State is loaded into one of these hearses, you take a look around and notice a large window through which the Slough Crematorium can be seen. The hearse, driven by a Gamma in a green outfit and hat, eagerly speeds off towards the Crematorium with its delivery. Just as the hearse exits, a shift of Delta-minus attendants enters the garage and immediately they begin to get the next hearse ready. The route south leads back to the residence room. You see a hearse here.
As you enter the soma distribution room, you find yourself elbowing past groups of black-wearing Epsilon janitors and elevator attendants arguing in monosyllabic sentences, as well as the slightly taller Deltas, all of whom are wearing the same khaki uniform. A freemartin Alpha enters carrying a metal case that immediately settles down the entire crowd. All at once, order is brought to the room. Talking ceases, lines are formed, and a general feeling of relief spreads throughout the room. As the workers receive their soma ration for the day, they settle in for a narcotic holiday on a faraway planet. The hallway west leads back to the lobby. You see a soma case here.
Appendix D

The *Brave New World* MOO: Evaluative Survey

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1. I enjoyed participating in the BNW MOO.  
2. In general, interacting in the BNW MOO helped me get into the novel.  
3. The world of the BNW MOO was like the world Huxley describes in the novel.  
4. The BNW MOO allowed me to experience the novel more fully than I may have in an ordinary classroom setting.  
5. There was no real connection between the novel and the BNW MOO.  
6. Interacting in the BNW MOO helped me understand the setting of the novel.  
7. Interacting in the BNW MOO helped me understand the major ideas of the novel.  
8. Interacting in the BNW MOO confused my understanding of the novel.  
9. Interacting in the BNW MOO increased my desire to read the novel.  
10. Creating a character in the BNW MOO helped me get into the novel.  
11. I did very little role playing as my character.  
12. I spent most of my time in the MOO acting out of character.  
13. I spent most of my time in the MOO during school hours.  
14. I spent most of my time in the MOO during after-school hours.  
15. Creating a building in the BNW MOO helped me understand the setting of the novel.  
16. Creating a building in the BNW MOO helped me understand the major ideas of the novel.  
17. Creating a building in the BNW MOO involved scanning the text for ideas and details.  
18. I spent more time learning "how" to build in the BNW MOO than I did thinking about "what" to build.  
19. Learning and using MOO commands was frustrating.  
20. I was given enough time to learn and use MOO commands.
21. Small group MOO discussions were different than small group classroom discussions.

22. The small group MOO discussions allowed all group members to voice their opinions.

23. The small group MOO discussions were more balanced (even participation from all members) than a small group discussion in an ordinary classroom.

24. Being a character made me more willing to participate in small group MOO discussions.

25. To participate in a small group MOO discussion, you need to be a fast typist.

26. The small group MOO discussions allowed shy people to speak more freely.

27. The absence of a teacher in the small group MOO discussions allowed conversation to move more freely than in a large group, teacher-led discussion.

28. My small group MOO discussions were dominated by one or two individuals.

29. I felt left out of my small group MOO discussions.

30. Interacting in the MOO allowed me to get to know classmates better than an ordinary classroom would.

31. Using the MOO made reading *Brave New World* more interesting.

32. Using the MOO made reading *Brave New World* more confusing.

33. I would like other English classes to use MOO technology.

In the space below, describe two things you liked about your MOO experience:

In the space below, describe two things you disliked about your MOO experience:
Appendix E

The *Heart of Darkness* WebQuest
Introduction

Since its publication in 1899, Heart of Darkness has been one of the most widely read books written in English. It has also been one of the most analyzed. Scores of literary critics, ranging from feminists to Marxists to New Critics, have all tried to construct their own meanings from the pages of the book.

The novel does seem to invite a wide variety of interpretations. Its narrator even claims the meaning of the story "was not inside like a kernel but outside, enveloping the tale which brought it out only as a glow brings out a haze, in the likeness of one of these misty halos that sometimes are made visible by the spectral illumination of moonshine."

After reading Heart of Darkness, you may feel that the meaning of the story is very hazy. How do you go about making sense of a story as obscure as Heart of Darkness?

This web quest may be of some help. It will help you learn just how some critics have come up with their interpretations of Heart of Darkness and encourage you to develop your own critical stance on the book. On your journey toward meaning, you will follow Marlow up the Congo River, shedding light on the heart of darkness as you proceed, and arriving at a better understanding of this evasive book.
Task

Your task is twofold.

First, you must become familiar with one type of literary criticism.

Second, you must use this critical approach to interpret passages from *Heart of Darkness*. In other words, you must read these passages as a psychoanalytical, post-colonial, reader response, deconstructionist, or feminist critic.

To achieve these tasks, you will follow Marlow up the Congo River. Along the way, you will be visiting links, recording your observations in your Congo Diary, reading important excerpts from *Heart of Darkness*, and posting your critical interpretations on the message board.
Process

The first thing you will need to do is determine what type of literary scholar you will be. Do this by clicking on the Resource button and examining the links.

After you have explored and chosen one critical approach, be sure to answer the corresponding questions below the listed links. You should record these answers in your Congo diary.

Then click on the To the docks button. This will take you to the first of five destinations. At each destination, you will read an excerpt from *Heart of Darkness* and respond on a special message board. Each response must be at least 150 words and be supported by at least two direct quotes from the text.

Most importantly, remember that your goal is to read and react to each passage as a psychoanalytical, post-colonial, reader response, deconstructionist, or feminist critic. Ask yourself, "How would this sort of critic read this passage? What would he or she find important?"

When you are finished with this, visit both the Evaluation and Conclusion sites for some last details.
Resources

Click on the following links to learn more about:

- Psychoanalytical criticism
- Post-colonial criticism
- Reader response theory
- Deconstruction
- Feminist criticism
- Joseph Conrad and Heart of Darkness

Once you have made your decision, be sure to answer the questions about the critical perspective you have chosen. You will find them on the same page as the links.

Record your responses in your Congo diary. Once you have answered these questions, you may begin your journey by clicking the To the docks button.
Welcome to the docks

Your Instructions:

Read the following excerpt from Heart of Darkness very carefully. You may even wish to print this excerpt so you can underline important words and sentences. If you are uncomfortable reading from a screen, locate the passage in your text (pages 3-4).

Keep in mind that you are reading the passage through the eyes of the literary critic that you researched. Ask yourself, "What would this sort of critic look for? Why?"

When you are done with this excerpt, click Message Board to post your thoughts. Be sure to follow the guidelines for posting a message. By the end of this journey, you should have five separate posts, one for each location.

"And this also," said Marlow suddenly, "has been one of the dark places of the earth."

He was the only man of us who still "followed the sea." The worst that could be said of him was that he did not represent his class. He was a seaman, but he was a wanderer, too, while most seamen lead, if one may so express it, a sedentary life. Their minds are of the stay-at-home order, and their home is always with them—the ship, and so is their country—the sea. One ship is very much like another, and the sea is always the same. In the immutability of their surroundings the foreign shores, the foreign faces, the changing immensity of life, glide past, veiled not by a sense of
"Finally I descended the hill, obliquely, towards the trees I had seen.

"I avoided a vast artificial hole somebody had been digging on the slope, the purpose of which I found it impossible to divine. It wasn't a quarry or a sandpit, anyhow. It was just a hole. It might have been connected with the philanthropic desire of giving the criminals something to do. I don't know. Then I nearly fell into a very narrow ravine, almost no more than a scar in the hillside. I discovered that a lot of imported drainage-pipes for the settlement had been tumbled in there. There wasn't one that was not broken. It was a wanton smash-up. At last I got under the trees. My purpose was to stroll into the shade for a moment, but no sooner within than it seemed to me I had stepped into the gloomy circle of some inferno. The rapids were near, and an uninterrupted, uniform, headlong, rushing noise filled the mournful stillness of the grove, where not a breath stirred, not a leaf moved, with a mysterious sound—as though the tearing pace of the launched earth had suddenly become audible.
Welcome to the Central Station

Your Instructions:

Read the following excerpt from *Heart of Darkness* very carefully. You may even wish to print this excerpt so you can underline important words and sentences. If you are uncomfortable reading from a screen, locate the passage in your text (pages 25-26).

Keep in mind that you are reading the passage through the eyes of the literary critic that you researched. Ask yourself, "What would this sort of critic look for? Why?"

When you are done with this excerpt, click Message Board to post your thoughts. Be sure to follow the guidelines for posting a message. By the end of this journey, you should have five separate posts, one for each location.

"I was not surprised to see somebody sitting aft, on the deck, with his legs dangling over the mud. You see I rather chummed with the few mechanics there were in that station, whom the other pilgrims naturally despised—on account of their imperfect manners, I suppose. This was the foreman—a boiler-maker by trade—a good worker. He was a lank, bony, yellow-faced man, with big intense eyes. His aspect was worried, and his head was as bald as the palm of my hand, but his hair in falling seemed to have stuck to his chin, and had prospered in the new locality, for his beard hung down to his waist. He was a widower with six young children (he had left them in charge of a sister of his to come out there), and the passion of his life was pigeon-flying. He was an enthusiast and a connoisseur. He would rave about pigeons. After work hours he used sometimes to come over from his hut for a talk about his children and his pigeons; at work, when he had to crawl in the mud under the bottom of the steamboat, he would tie up that beard of his in a kind of white serviette he brought for the purpose. It had loops to go over his ears. In the evening he could be seen squatted on the bank rinsing that wrapper in the creek with great care, then spreading it solemnly on a bush to dry.

"I slapped him on the back and shouted, 'We shall have rivets!' He scrambled to his feet exclaiming, 'Not rivets! I though you couldn't believe his ears. Then in a low voice, 'You...eh? I don't know why we behaved like lunatics. I put my finger to the side of my nose and nodded mysteriously. 'Good for you!' he cried, snapped his fingers above his head, lifting one foot. I tried a jig. We capered on the iron deck. A frightful clatter came out of that hulk, and the virgin forest on the other bank of the creek sent it back in a thundering roll upon the sleeping station. It must have made some of the pilgrims sit up in their hovels. A dark figure obscured the lighted doorway of the manager's hut.
Welcome to the Inner Station

Your Instructions:

Read the following excerpt from *Heart of Darkness* very carefully. You may even wish to print this excerpt so you can underline important words and sentences. If you are uncomfortable reading from a screen, locate the passage in your text (pages 44-45).

Keep in mind that you are reading the passage through the eyes of the literary critic that you researched. Ask yourself, "What would this sort of critic look for? Why?"

When you are done with this excerpt, click Message Board to post your thoughts. Be sure to follow the guidelines for posting a message. By the end of this journey, you should have five separate posts, one for each location.

"I laid the ghost of his gifts at last with a lie," he began, suddenly.

"Girl! What? Did I mention a girl? Oh, she is out of it - completely. They - the women I mean - are out of it - should be out of it. We must help them to stay in that beautiful world of their own, lest ours gets worse. Oh, she had to be out of it. You should have heard the disinterred body of Mr. Kurtz saying, 'My intended.' You would have perceived directly then how completely she was out of it. And the lofty frontal bone of Mr. Kurtz! They say the hair goes on growing sometimes, but this - ah - specimen, was impressively bald. The wilderness had patted him on the head, and, behold, it was like a ball - an ivory ball; it had caressed him, and - oof - he had withered; it had taken him, loved him,
The dusk was falling. I had to wait in a lofty drawingroom with three long windows from floor to ceiling that were like three luminous and bedraped columns. The bent gilt legs and backs of the furniture shone in indistinct curves. The tall marble fireplace had a cold and monumental whiteness. A grand piano stood massively in a corner; with dark gleams on the flat surfaces like a somber and polished sarcophagus. A high door opened closed I rose.

"She came forward, all in black, with a pale head, floating towards me in the dusk. She was in mourning. It was more than a year since his death, more than a year since the news came, she seemed as though she would remember and mourn forever. She took both my hands in hers and murmured, 'I had heard you were coming.' I noticed she was not very young - I mean not girlish. She had a mature capacity for fidelity, for belief, for suffering . . . .

Welcome to the Sepulchral City

Your Instructions:

Read the following excerpt from Heart of Darkness very carefully. You may even wish to print this excerpt so you can underline important words and sentences. If you are uncomfortable reading from a screen, locate the passage in your text (pages 69-72).

Keep in mind that you are reading the passage through the eyes of the literary critic that you researched. Ask yourself, "What would this sort of critic look for? Why?"

When you are done with this excerpt, click Message Board to post your thoughts. Be sure to follow the guidelines for posting a message. By the end of this journey, you should have five separate posts, one for each location.
Appendix F

Intern Study Survey
1. My internship site had adequate technology resources (hardware, software, connectivity, tech support) to support the use of educational technology.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly Agree

2. The majority of computers at my internship site were less than three years old.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree

3. My internship site had a high-speed connection to the Internet.

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly agree

4. Each classroom at my internship site was equipped with at least one computer.

- Strongly disagree
- Disagree
- Undecided
5. The number of computers at my internship site was adequate for the needs of its students.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

6. It was easy to reserve the computer lab or media center for class use at my internship site.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

7. Students had access to the internet from multiple locations at the internship site, such as computer labs, media centers, and individual classrooms.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

8. Media or technology specialists were readily available to help me integrate technology into my classroom.
9. The teachers and administration at my internship site were supportive of the use of educational technology.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree

10. I am more knowledgeable about educational technology than my supervising teacher.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree

11. After my English 480 and internship experience, I can see myself as a professional resource in the integration of technology in my future classrooms.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree
12. My supervising teacher was eager to learn about educational technology.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

13. My supervising teacher regularly integrated technology into his or her curriculum.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

14. Students at my internship site had access to a web design program, such as Netscape Composer or Dreamweaver.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

15. I added to or modified the content of my classroom web site during my internship.
   - Strongly disagree
   - Strongly agree
16. My classroom web site was a valuable tool for my students during my internship.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

17. I plan to maintain my classroom web site in the future.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

18. I integrated the WebQuest I designed in 480 into the curriculum I taught during my internship.
   - Strongly disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly agree

19. I integrated a new or modified WebQuest into the curriculum I taught during my internship.
   - Strongly disagree

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20. My WebQuest was a valuable tool during my internship

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree

21. I plan to use WebQuests in my future teaching career.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree

22. English 480 adequately prepared me to use educational technology during my Internship experience.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree
23. English 480 spent too much time on technology and not enough on other important issues.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree

24. The Teaching English Through Technology web site (www.wmich.edu/teachenglish) was a valuable resource during English 480 and my internship experience.

- Strongly disagree
- Disagree
- Undecided
- Agree
- Strongly agree

25. Which of the following technologies did you integrate into your curriculum during your internship? (Check all that apply)

- □ Word processing software (e.g. Microsoft Word)
- □ Digital classroom management tool (e.g. to calculate grades or take attendance)
- □ Text archives
- □ Electronic portfolios
26. Which of the following technologies did you use to increase your personal productivity during your internship? (Check all that apply)

- Word processing software (e.g. Microsoft Word)
- Web design software (e.g. Netscape Composer or Macromedia Dreamweaver)
- Presentation software (e.g., Power Point, Inspiration, Hyper Studio)
- Desktop publishing software (e.g. Pagemaker)
- Asynchronous online communication (e.g. e-mail or threaded discussion)
- Synchronous communication (e.g. chat room or MUD/MOO)
- Online research (e.g. databases or general search engines)
- Virtual field trips/Distance learning experiences
- Digital classroom management tool (e.g. to calculate grades or take attendance)
- Text archives

27. Percentage of your students whom you believe have access to computers at home.

28. Percentage of your students whom you believe have access to the Internet at home.

29. On average, how many hours per week did your students use a computer at school?
30. On average, how many hours per week do students with computers at home use those computers at home?

31. Briefly explain one lesson in which you used technology to achieve your objectives.

32. From your perspective, what technology-based activities are the most intellectually meaningful and enjoyable for secondary students?

33. What specific recommendations would you make to instructors of English 480 as they try to prepare interns to integrate technology into their own classrooms?
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