



writing inventions

IDENTITIES | TECHNOLOGIES | PEDAGOGIES

SCOTT LLOYD DEWITT

a book that connects theory and practice in the field with the craft of innovative instruction. This book takes up an interesting issue of "invention" in relation to the computer technology used to read, create, and compose as well as a collection of processes that lead to what is not yet known.

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Writing Inventions

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Writing Inventions:

Identities, Technologies, Pedagogies

Scott Lloyd DeWitt

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Contents

Figures	vii
Author's Note	ix
Acknowledgments	xi
Introduction: Inventing Ourselves	1
Inventing Audience	6
Inventing Myself	11
1 Inventing Invention	17
Contexts of Invention	19
Moments of Invention	22
A Point of Invention/Contention	24
What Writers Do	30
What Students Do—or Don't Do	37
The Technology of Invention	43
2 Inventing Discussions, Inventing Pedagogies	51
A Comfortable Middle?	53
Technology Round 1: An Invention	57
Technology's Second Round: A New (Re)Invention	72
Integrating CmD: Sequencing Assignments	83
Concluding Discussions	94
Appendix: One Computer-Mediated Discussion on Computer-Mediated Discussion	95

3 Inventing Hypertext Reading	109
Positioning the Web	114
Web Workings	116
Upgrades and Upshots	118
Inventing Instructional Web Sites	120
Inventing Method	124
Multi-Tasking Applied	126
Constructing Web Experiences	132
Connecting the Disconnected Snapshots	137
Conversing the Web	149
Appendix: Possible Lives, Chapter 1—Los Angeles and the LA Basin	160
4 Inventing Hypertext Writing	175
One Hypertext Application	177
Designing a Hypertext	183
Case Portrait: Devin	188
Case Portrait: Daniel	193
Case Portrait: Marie	197
Case Portrait: Yvonne	201
Case Portrait: Matthew	205
Reflections and Conclusions	210
5 Inventing Scenes	217
A Sequence of Assignments	220
Understanding Students' Inventions: Reading Their Work	237
Concluding Reflections	256
Bibliography	263
Index	273

Figures

3.1	The Impulsive Model	141
3.2	The Reflective Model	146
3.3	The Reflective Model Extended	147
4.1	HyperCard Template	184

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Author's Note

Writing Inventions: Identities, Pedagogies, Technologies uses student writing and interview transcripts extensively as data. A few points need to be clarified about the methodology:

- I have chosen *not* to note errors in writing samples and interview transcripts with [sic].
- Readers should assume that errors in writing samples were part of the original text (most were collected on disk).
- Readers should assume that “errors” in speech patterns and grammar in the transcripts of face-to-face interviews were as spoken.
- I have used student writing and interviews as data. Because of promised anonymity, I have changed the names of all students whose work I cited within.

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Acknowledgments

I belong to a writers' group. An amazingly successful writers' group. The players are affectionately known as "Crazed Researchers," a group of colleagues . . . friends . . . who get together on a regular basis to share writing and offer constructive feedback to each other. We have been working together now for just over eight years. We usually meet over some kind of food, either in someone's home or at a favorite coffeehouse. We laugh—a lot. We gossip—a little. We show off new clothes and new hair cuts. We catch up on the parts of our lives that get lost in our busy work schedules—movies we've seen, restaurants we've been to, family, dates. Until recently, when we added a new member, I was the only man in the group of five; I often thought that if our conversations were archived in a hypertext, we'd see an incredible number of links through the word "uterus." We are a group where a lot of talk takes place.

Throughout our four-year existence, we've used e-mail to schedule or cancel or reschedule meetings—"business." We've never attempted to use the technology in our *real* business, our creative work. There hasn't been a need, really. Mostly, though, I think we have avoided the idea of a virtual writers' group because we like to be with one another, so much so that we're compelled, driven to carve out a chunk of time in our lives to share a physical creative space, complete with animated body language, loud laughter, a cushy couch, and spilled food.

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Introduction: Inventing Ourselves

This is a book about teaching writing. Usually, I don't feel the need to make such plainspoken claims about my work. Yet, I grow increasingly uncomfortable with the ways both my work and I have been named, as of late: "His work is in computers. . . . He teaches computers. . . . He's a computer specialist." I don't necessarily disagree with these tags. They are not erroneous, nor are they purposely misrepresentative. In fact, I'm sure that I have made these very statements about my professional identity at one time or another. These characterizations, however, allow people to forget what it is that I do: I teach writing.

Professionally, composition has been a field forced to specialize. The reasons, both scholarly and practical (and all of which are political), are many. But few areas of specialization have had such widespread appeal and such identity-forming effect as have "computers and composition studies." Quite rapidly, a large cross section of the profession has been more than willing to accept computer technology into its departments, programs, and classrooms. At the same time, however, compositionists whose scholarship explores computer technology have become so narrowly defined that their identity as teachers of writing, in the eyes of others, is obscured by the appeal of the technology itself—often resulting in, "His work is in computers. . . . He teaches computers. . . . He's a computer specialist."

The widespread appeal is easy to understand. Consider why writers use computers in the first place. Computers relieve some of the tedium of composing. Technology has given us access to new forms of research previously nonexistent or out of reach. We have discovered opportunities to use computer technology for communication in ways we had never before imagined. Of

course, computers are fun—when they work. And we must admit that computers have allowed us to recast our introductory courses for students who don't like taking writing classes, not to mention for teachers who are less than eager to continue teaching them. Computer-enhanced writing programs become a public relations asset for our schools, too. When learning institutions require students to take writing courses that just happen to be taught using computers, administrators can promise computer literacy among all of their graduates.

The reason that computers have had such an extreme identity-forming effect on those who use them to teach writing and on those who conduct research on computers and composition is a bit more difficult to understand. Perhaps it is as simple as novelty: The glitz associated with the technology still overshadows our pedagogical purposes. Perhaps our early years teaching writing with computers, when we sometimes spent more time teaching computer operations than we did teaching writing, are more pervasive than we would like to believe. Or maybe what we are looking at here is a lingering reaction to the technology that, for many, *still* seems so out of place within the humanities. One cannot help but understand why certain administrators associate us so closely with the machines; certainly, never before in the history of the humanities have budget requests been so focused on the implementation of computer technology.

Regardless, my association with these machines—as teacher and as researcher—has forced me to be acutely aware of others' perceptions of me and my work. At times, events and circumstances surrounding the use of computers cause even me to question my own professional identity. I just recently completed a temporary stint as technical support for our campus after the resignation of a key player on our computer staff. I found myself scheduling labs and equipment, teaching basic software operations, fixing faulty wiring, and assisting with the repair of a campus-wide network crash. On my drive home at night after a day that had much more to do with “tech” than it did with “teach,” I would find myself asking, “What did any of this have to do with why I'm here?” When I feel backed into a corner, fielding endless questions about hardware and software that are truly devoid of any consideration of teaching and learning, I gently remind those in my company, “I teach writing.” And when I find myself wrapped up in the bureaucracy of computer committees, or having spent an afternoon circling an empty room of humming computers trying to figure out just what went wrong with the LAN or the LISTSERV during the class before, I gently remind myself, “I teach writing.”

I remember as a graduate student being assigned Andrea Lunsford's published CCCC chair's address, “Composing Ourselves: Politics, Commitment, and the Teaching of Writing,” in which she urges the profession to discontinue its trend toward narrowly defining itself “according to rigid meanings grounded in preexisting, fixed categories” (Fontaine and Hunter, 1993, 2). Lunsford's essay was included as a reading within a seminar discussion cen-

tering on academia and marginalized voices, primarily those of women and people of color. Our approach to “Composing Ourselves” allowed me to explore some questions I had begun to raise about my role as a gay man categorically set “outside” and restricted by various academic boundaries. Yet, as invaluable as that learning experience was to me as a student, a scholar, and a teacher, Lunsford’s essay spoke volumes to me on another level: I left the immediate conversation of the seminar to consider—for possibly the first time—how I was composing myself professionally and, subsequently, how I had allowed others to compose me.

Understanding this composition of my identity actually became an exercise in understanding how specific choices and experiences had led to a creation, an *invention* of sorts. I was nearly ABD and just under two years away from a tenure-track job offer. I no longer saw my graduate studies as mere coursework; instead, I recognized I was inventing a professional identity that would traverse coursework, dissertation, and the job market. I pursued my degree in a nationally recognized Doctor of Arts program that emphasized the training of undergraduate teaching professionals; many of the courses offered included a strong pedagogical foundation, where the content itself was pedagogy. My department required that I complete a cognate to my composition and rhetoric degree; I chose computers and composition studies, not only because of interest and expertise in the technology, but also because I could form an attractive job persona in an extremely tough market. I was expected to write an empirically researched dissertation that grew from this cognate where I designed a classroom-based study that would yield some type of data that I could examine and analyze: This study became *Hypertextualizing Composition Instruction: A Research Study*. My training in teaching writing occurred in a program where 100 percent of lower division writing courses were taught in computer classrooms. I also spent one year as the coordinator of computers in the department, a job that required me to manage and maintain ten computer classrooms and provide continual support and training to new and seasoned teachers.

I carefully examined this invention of my professional identity and, without question, deliberately composed and pitched myself on the job market as a *computer specialist*, responding vigorously to job announcements that requested candidates who could bring technological and pedagogical expertise to their departments. Really, I shouldn’t be surprised by the composition that has become my professional identity, for I am its author. Today, however, years into the tenure track of my first job, I find myself *reinventing* and *recomposing* myself in many of the “practical, concrete terms” that Lunsford’s agenda forwards:

[W]e will situate ourselves in the complex, problematic history of writing, trying to find ways to tell and retell that story around and through us. . . .
[W]e will continue our often unspoken commitment to resist the temptations

of binary oppositions—between research and teaching, theory and practice, composition and literature, teacher and student, between playfulness and seriousness. . . . [W]e will tell our stories, stories of students . . . and of teachers of writing. . . . [W]e will insist, as we compose our stories, on combining the private and the public, the personal and the professional, the political and the social. . . . Most of all, we will refuse to be or become composed or static. (1990, 77–78)

Reinventing and recomposing myself takes on new importance as I struggle to simultaneously embrace and resist the sometimes accurate, yet “often limiting and constricting” label, *computer specialist* (Lunsford, 1990, 72). As I continue to negotiate and find commonality between *writing teacher* and *computer specialist*, I continue to see the weight of understanding not only how I have invented and composed myself, but also in how others will *read* how I have invented and composed myself.

Nothing, I believe, keeps me more grounded in those gentle reminders (“I teach writing”) than the reflexive activity of writing about the various roles that computer technology plays in the craft of teaching composition. Such activity moves well beyond simple narration in scope: It propels me to consider the history of both the field of computers and composition studies and my own place within that historical context. That sense, then, of knowing where the profession has been enables me to question where it is at this moment and where I, for one, want to go next. (I’ve learned that the trend toward *predicting* where computers and composition studies will go next, with the quickly and always changing technology of computers, is not nearly as useful as *directing* where it will go next.) This active interrogation of the field helps me to avoid reducing the complex acts of both writing and teaching to mere “how to” lists and prevents me from forgetting that my own writing, my teaching, and my research all inform each other. Finally, writing about my work also gives voice to the stories of my classroom that make an ever-important contribution to a culture of teaching and learning.

These are the considerations that motivate this book, *Writing Inventions: Identities, Pedagogies, Technologies*. As a way of describing what is amassed here, let us begin by examining my title. As with Christina Haas’ *Writing Technology* and my own research study entitled, “Defining Links,” I intend a play on words in my title. The first meaning, the most obvious, might be a way to describe a technology: computers are writing inventions, machines used to compose. Yet throughout the book, *invention* becomes a theme, a controlling idea. I use *invention* to mean a rich collection of processes, both systematic and chaotic, that leads to discoveries of what is not yet known: topics for papers; new pedagogies; personal and professional identities. I believe invention, in practice and in its rich history in rhetorical theory, touches more in composition pedagogy

than does anything else. This is especially true in the sense in which I use this term throughout this book—as a complexly intertwined impression of the often separated acts of reading, writing, exploration, discovery, and research.

The act of writing itself is immediately tied to invention, as is evidenced by current practice in the field of composition and rhetoric. Much of the instruction implemented in composition courses provides opportunities for students not only to find topics about which to write, but also to move beyond a superficial treatment of a particular subject, to find an interesting angle on a particular subject, or to internalize difficult content, making the knowledge their own. Frustrating for our students (and sometimes for us) is the realization that much of the resulting writing (and much of the learning) never “appears” in a final product. But couple these inventions with *writing* as a present participle, a verb form that describes the act of doing something, and the phrase comes to mean committing these discoveries to written text, the act of composing that which each of us discovers and creates. As awkward as it sounds—especially on the printed page—in this book, I am *writing inventions*.

No volume can address how to use every type of computer technology available to teach everything we need to accomplish in our writing courses. So I have deliberately chosen to narrow the lens through which I view composition pedagogy. Focusing on the notion of invention, I model how computer technology and certain instructional goals can be connected. Because this book explores the pedagogical implications of technology, it is concerned with various writing courses I teach, some of which are representative of other university writing programs, some of which are not. These courses teach students the conventions of academic writing. They concentrate on topic formation and development, including types of evidence and strategies of argument, as well as intense investigation of audience and purpose. These courses, in short, intend to foster students’ development as active writers within various academic and public intellectual communities. Some of these courses link writing instruction closely with in-depth explorations of academic subject matter. In other words, they offer instructors the opportunity to develop a particular course topic so that the subject is supported by a seminar course format. At the same time, students learn the role that writing can play in academic endeavors where a focus on one subject is maintained throughout the term.

Immediately, readers will see that nothing in this volume assumes a “one size fits all” approach to computers and teaching writing. I scrutinize the interrelationships of pedagogical applications of computers with educational settings, student populations, hardware/software configurations, and institutional technical support. I recommend that anyone inventing instructional approaches to computers and composition do the same. Teachers who use writing in a variety of courses across the disciplines, as well as those who direct or mentor in

Writing Across the Curriculum programs, will find much that applies to their classroom work.

Inventing Audience

I find that writing about computers and composition forces me to consider audience differently than does other writing. Of course, the basic questions for analyzing one's audience still exist: What attributes define my audience? What does my audience need to know, and what does my audience want to know? Yet years of studying the texts of techno-compositionists—classroom idea exchanges, published research, conference papers—lead me to believe that the field's attempts to reach a wide variety of professionals have been less than inviting and inclusive.

Research today—in general—tends to be written to “the highest common denominator,” or, in other words, to those who are not only well entrenched in the published literature, but also to those who have an understanding of the history of the field, including where it has been, where it is now, and where it may be heading based on calls for future research. Sometimes, when writing in a field of study that is either teeming in publication or is growing at a phenomenal pace (both are the case in computers and writing), writers grasp, out of necessity, for ways to narrow the scope of a particular project. Likewise, writers find their research is sometimes shaped by institutional pressure to be on “the cutting edge” (this is most evident in the “publish or perish” world of the tenure track). Unfortunately, the deepest cut made is often that of the audience.

Writers choose their approach toward audience for many reasons, yet most share a common call for continually questioning our approaches toward and agendas for using computers in our classrooms, usually reminding us to avoid treating the technology as “just a machine.” I am reminded of Nancy Kaplan's appeal to carefully consider the questions

that foreground the tensions between what teachers teach and what teachers use to teach with. . . . Teachers' concerns . . . should extend well beyond the confines for their daily work, leading them to examine the situatedness in a full field of ideological constructions, for theorists and practitioners alike need to understand that both the tools that come to hand and those they seek to create may come with ideological price tags. (1991, 35–36)

Hawisher and Selfe emphasize the importance of these questions for the field: “By examining questions that must still be answered and by exploring ways in which we might begin to gather needed information, we avoid the danger of using electronic technology haphazardly. We avoid making decisions without carefully considering the issues affecting our students and ourselves” (1991, 2).

However, few writers allow an inclusive (and complex) vision of audience to guide how we write about computers and composition. I believe the field has been, in many cases, guilty of a limiting approach toward addressing audience, for what we often refer to as a community of teachers and/or scholars is actually many different communities that form themselves around the domains of knowledge, experience, and access.

When I talk to teachers, the ones who are “out there” with the students in the classrooms, it becomes clear that such an approach to audience when writing about computers and composition fails to address and include a significant number of people. Consider this list of questions by a group of middle- and high-school English teachers who are facing the introduction of computer technology into their curricula. I have included here about one half of the questions that they generated for me when I was a guest speaker in their class on methods of teaching English.

Hardware/Software

- How do we decide what programs are good? Do we have to pour over endless catalogs?
- How do we convince parents, voters, administrators, school boards, etc., that purchasing computers is important for our students' learning?
- How do we continue to be current with computer information in addition to other imposed (or self-imposed) duties?

World Wide Web

- The Web takes time—what about class time constraints (forty-eight minute periods, for example)?
- What practical use of the WWW can I make for and with my students?
- How do we monitor students who try to access inappropriate materials?
- Is there a site where teachers share their ideas on teaching literary selections? How do we put our information on the Web?

Internet

- Is e-mail the same as the Internet?
- How do we get addresses of people?

- Could I do interactive book reports?
- Can e-mail messages be intercepted by others?

Reading and Writing

- Is it possible/practical to read short stories, novels, etc., on the computer?
- Should or could the technology change our approach to the traditional research paper?
- Is there a simple booklet of step-by-step word processing instructions?

Research

- How do our students get to the *Readers' Guide*? How can they pull up a specific article?
- How can students determine the quality of information received?
- How do they document sources they find on the computer?

Other

- How do you assign homework?
- What about plagiarism—turning in papers found on the WWW as their own?
- Can I require work to be done on computers?
- How do I grade student work on the computer (some have better abilities and/or access)?
- How do we find time to learn so we can teach the technology?
- How do we keep up with all of the new data on computers?
- How can we measure student achievement/success while on-line?
- Is it possible or necessary to “stay ahead” of the students?

Now consider this list of questions that these same teachers would find if they turned to Selfe and Hilligoss's title, *Literacy and Computers: The Complications of Teaching and Learning with Technology*:

- What model of literacy will guide our discussion of technology? What conceptual framework for literacy, teaching, and learning does this software (hardware, etc.) imply? Does technology enhance or limit the model of writing instruction in this setting? (Zeni, 1994, 79)
- How does technology change the social relations in writing and in research communities? (Zeni, 1994, 84)
- How does a computer network promote or inhibit the process of social construction and social interaction? That is, how does it promote or inhibit collaboration and interaction among individuals, collaborators, discourse communities, and the larger community? (Duin and Hanson, 1994, 99)
- How do network configurations reflect distributions of power? That is, how do they reinforce or resist existing models of authority? (Duin and Hanson, 1994, 98)
- In what ways do [telecommunications] projects take into account special issues—such as equitable distribution of resources and sensitivity to cultural differences—that may arise when students communicate across distance and social class? (Bowen, 1994, 115)
- How do instructors' and institutions' definitions of literacy influence the ways that technology is introduced and used? (Forman, 1994, 143)

Perhaps, quite simply, *Literacy and Computers* is not written for the teachers I met. But Selfe and Hilligoss say that they attempted to reach a wide audience by “avoid[ing] technological jargon in favor of language that teachers share because of their involvement in literacy education” (1994, 2). Their approach, they hope, reaches a broad range of teachers with varying backgrounds in technology. Yet, the striking differences in these lists are easily attributable to the differences of the composers themselves: one group made up of teachers who have intensive classroom expertise yet limited computer experience from which to draw when asking questions; the other, teacher/scholars with a great deal of background in both the technology and the theory, connections between which actually generate the questions they ask. Perhaps there also exist differences in immediacy and exigency in their questions as these two groups feel the pressures of the technology and the other concerns of teaching bearing down on them.

I find that those who attend workshops I conduct on computers and writing fall into several communities of teachers and scholars. The first I have already mentioned—those who have been part of and are familiar with the movement of the past fifteen years or so toward using computers in writing instruction. (It is

important to note that not all of these folks are conducting and publishing research. Many direct their energies towards developing teaching methods and putting those methods into practice in their own departments and classrooms without the desire or pressure to publish their classroom stories.) Another community is made up of those who do not have access to computers for the purpose of teaching writing, but really wish that they did. These teachers tend to be well read in the theory of teaching with computers and can articulate why they believe their school should invest in the technology (many of them have had to do just that with their various administrators). Others really know nothing about computer technology and teaching but really want to know more about computers on a personal level before ever considering using them with students—which seems to be a safer move than trying to learn technology and teaching at the same time. Still others are being literally dragged into the “techno” age. They see “the machine” as an intrusion into the humanities curriculum and feel that computers distract from the real purpose of their courses. Yet, they realize that computers are not going away and they let their guard down, willing to give them a try.

One more group of teachers consists of those who were in on the ground floor of the early computers and writing movement. They had state-of-the-art computers in their classrooms and embraced them as an integral part of their teaching practice. Unfortunately, state-of-the-art equipment can quickly seem about as useful as Paleolithic clay tablets, laden with malfunctions and broken parts and unable to run the simplest software of the day. Departments that received large sums of money to develop computer-enhanced writing programs five to ten years ago are told to wait their turn for upgrades; others who have waited patiently for their first round of computers are offered hand-me-downs from departments who are “more deserving” of new hardware, where spending seems “more appropriate.” Nevertheless, there are a whole lot of really old machines in a whole lot of our writing classrooms under the direction of teachers searching for new, exciting ways to use these digital dinosaurs.

Experience and dated computers are not the only signifiers/designators of computers and writing communities. I find a significant disparity in the number of computers that teachers have access to as well as the frequency with which they have access to computer facilities. Ideally, a computer classroom should have at least one computer per student (actually, *ideally*, that would include one for the teacher, too). A one-per-student classroom design offers the most flexibility for teaching, the most important facet of which is working individually or collaboratively on the computers *depending on what effective pedagogy dictates*. But many teachers report anywhere from one computer to a small cluster of computers for their entire class. Such limited access forces teachers to fragment their teaching, preventing whole-class instruction, and adding yet another chore to class maintenance. Others report fighting for time in a classroom (usually designed more as a “lab” than a

“classroom”) that is shared by other disciplines, usually math or computer science; these teachers are sometimes lucky to get one class meeting every two weeks in the computer facility.

Inventing Myself

I have worked in many of the communities described above. My first teaching assignment thirteen years ago was in a computer classroom—at the time, this advanced technology had dual 5 1/4" drives, monochrome monitors, and ran nothing other than simple word processing. From that point on, I have never taught a writing course that was not computer supported in some way. Since writing my dissertation on the use of hypertext in a developmental writing class, my research has continued to focus on computers and composition studies. While I try to consume as much scholarship in the field as I possibly can along with hardware and software reviews in the popular press of the computer world, I have surrendered to the fact that I *really* can't read everything, given the fast pace at which computer technology and its respective research change.

My current teaching setting on the Marion Campus of the Ohio State University, though, has over the years relocated me to two new communities in computers and composition studies. Although my program still teaches 100 percent of its writing courses on computer, for years we did so on machines that were so dated that we feared many of our students were taking a significant step backwards from the computers they had access to at home or at work. Whereas this writing program is pedagogically parallel to my first, my previous department upgraded hardware and software once every two to three years. Budget constraints prevented my current program from replacing antiquated and malfunctioning computers for over five years. Up through the mid-1990s, I continued to pet and rub and whisper softly to our ailing 8086s and 286s, “Boot, just one more time.” Then, we were given funds to purchase eight new, powerful machines, leaving us with thirty-two computers that could hardly be called stable. We decided to place the new machines in a classroom directly next to some of the oldest machines on the entire campus which did not make for technological continuity.

I would be less than honest if I said this technological setting allowed me to do the work with my students that I would have liked. Research seemed to indicate that to be on “the cutting edge” of computers and writing, my students should have immediate access to the World Wide Web and other Internet technologies such as electronic mail, on-line discussion groups, and GOPHER research data bases. This research led me to believe that my students should be gaining valuable experience in writing through real-time, on-line discussion spaces where they could converse with their classroom peers as well as with students around the world. In addition, researchers were convincing me that

advanced technology should be sending students with problems, via their computer, to an on-line writing center rather than asking them to trudge across campus to sit face-to-face with a tutor.

What I was reading and hearing at conferences and seeing at workshops was all very exciting. Yet, I present here no blanket acceptance of these applications. Instead, I find it necessary to identify a tension comprised of two realities—the realities of enticing possibilities and the realities of limited resources—as a place to *begin* questioning the current nature of research in computers and composition. Of course, this problem runs deeper than conflict between the haves and the have-nots. Researchers and teachers like myself find ourselves struggling with what could be self-defeating circumstances. Plainly and simply, some teachers don't have the necessary resources to journey with their students to the writing experiences they currently see reported in published and presented research. So, immediately, not only is their practice questioned as "dated," but they begin to question themselves, wondering just what they could possibly contribute to a dialogue that seems to have left them behind and that, with each upgrade, moves farther and farther away.

I had, for some time, resisted acknowledging my own role in these conditions. As a faculty member in a department with rigorous, demanding research expectations, I worried about how such conditions would affect my approaching tenure decision. I had composed myself as a computer specialist, and my senior colleagues expected that my *research* would reflect the *researcher*, that the research would be undeniably tied to the technology. Could I actually articulate compelling research problems that, although obviously tied to "old" technology, didn't seem to mirror "old" research? Would my research be unequivocally dismissed because of its seeming datedness? I also worried for more practical reasons: If I proved to my administrators that I could both teach and produce effective research on teaching writing with obsolete computer equipment, what would there be to push them toward updating our technology?

After years of teaching writing and conducting research with antiquated technology, my department was given two new computer-supported classrooms: fifty Windows-based computers capable of running any market software for many years to come; powerful word processing, desktop publishing, presentation, networking, and Internet software; sharp laser printers; Web authoring capabilities. With additional grant support, we were able to purchase a powerful departmental Web server. These upgrades, however, did not come easily. I attended endless campus computer committee meetings at which I justified the expenditure on the new technology by arguing that because all students enrolled in at least one composition course on our campus, we could boast computer literacy across our entire student population (the argument I continually pitched toward my administrators). I presented formal proposals in which I outlined theoretical concerns, classroom designs and schedules, equipment requisition forms, technical support, elaborate budgets, and faculty

training sessions. One of my arguments resounded at every meeting where computers were the topic of discussion: We are doing our students a disservice by educating them on equipment that more than likely will no longer be considered “viable” outside our classroom walls.

In retrospect, I see that many of my arguments for acquiring a new computer classroom furthered the disparities that exist among numerous educational institutions today. While my professional colleagues at a private institution less than an hour away would give the world for the opportunity to begin working with technology in the classroom, I was actually requesting the world. And one simple fact of privilege remained: While I had to work hard to convince my administration to spend the money on my department, in the end, the money existed. It was there, and it needed only an application.

Denying economic as well as scholarly inequities does little more than secure their continuation. Yet, what will enable us to turn the tables on these disadvantageous situations, so common to many teachers and researchers?

I argue that we need to change a current, wide-reaching trend in our approach to research—one that delimits and hinders—in order to create a space where we can truly compose ourselves, resisting the boundaries and privileges that all too often technologies themselves impose. Such a change will not come easily, especially when our research is so often tied exclusively to hardware and software. We can begin by shifting our gaze away from “the machines” and back to the situations arising from real writing instruction that perhaps utilizes computer technology as a means to an end. To do so begins to level the playing field by lessening the research privilege of those who have the loosest purse strings and, thus, the most powerful machines. I am certainly not suggesting that we ignore the presence of computer technology in our teaching and learning environments. Instead, the technology needs to be regarded in a new light that allows the teacher running WordPerfect 5.1 on a 286 and the teacher guiding students to instructional Web pages on a new Pentium III equally legitimate voices that are valued by a multitude of audiences.

Also, we need to continue to study the reciprocal nature of theory and practice not only in our teaching but also in the role that computer technology plays in our teaching. Writing teachers who use computers in their classrooms face a vast array of theoretical and pedagogical problems that need to be solved—problems that do not necessarily exist in the traditional classroom setting. Our first and foremost task is rigorously challenging the assumptions behind the question, “Will the use of computers make our students better writers?” Underlying this question exists the misconception among many that adding technology to our classrooms creates a simplistic cause-and-effect equation: computers=better writers. In their concern with the unreasonable expectations that technology will “solve” our students’ writing problems, scholars and teachers in computers and composition studies, the pioneers in this field, stood firm on one point: We need to ensure that the focus of our composition classes remains on the study of writ-

ten communication and that the teaching strategies we bring to the classroom to make our students better writers continue to be informed by what we know about teaching writing, not by what the computer can do. In other words, they believed that we should always start with good teaching practice and find ways to bring computer technology to it.

While I embrace this belief as a guiding vision, especially for those new to using technology in the classroom, I want to push beyond this boundary, too. I propose that new technologies can help teachers to *imagine* new pedagogies, that teachers' actual hands-on experience with particular computer applications can lead them toward the development of teaching practice. Such reciprocity allows us to remain true to sound pedagogical practice in its many forms but, at the same time, opens up possibilities for the creation of new practices. Of course, we need to remain critical in our view of developed pedagogies. I'm not suggesting, for example, that we support as sound pedagogy a "back-to-basics" approach to writing instruction based on the fact that teachers may still have access to drill and practice grammar software. Yet, I am equally critical of any theory that limits rather than expands the possibilities for how we might change what we know about writing and writing instruction. Finally, this reciprocity supports a change in the current, global trend in our approach to research by allowing theory and practice to grow from experience with computers regardless of the technologies to which teachers and researchers have access.



I've struggled with the form this book should take. Actually, I tried to resist "the book" as a uniform image because this text employs many forms: narratives, theory, classroom practice, histories, empirical research, interviews. Often these approaches and forms run right up against one another; at other times they are easily separated. In many ways, this book tells stories. While I want these to be instructional stories about computers and writing—to me, the story is an excellent way to present instructive work—I also intend for them to speak on a deeper level, one that includes my own reflections on the subjects at hand. It's strange to think of myself as a storyteller after having only taught thirteen years. But then again, these are stories about teaching writing using computers; my subject matter has a relatively short history, and I've been present through a major portion of that history.

Realizing the likely diversity of technical knowledge readers will bring to this book, I have tried to assume very little in terms of how particular technologies work. First of all, the research presented within was supported by a wide range of computer platforms and capabilities. Also, most technologies in our classrooms are rarely used as they were created by the computer industry (a close look at the capabilities and graphic interfaces of any modern word pro-

cessing program reveals more about corporate America than it does about today's classrooms and the students who populate them). Instead, we shape and mold the technologies to fit specific needs and purposes; we invent ways to use the invention. So for me to say that my students conducted an e-mail discussion is really meaningless without a description of the configuration of the software and how I directed the students to use the software, so to speak. Many will find descriptions of the technology boring at best, while others will welcome some straightforward writing about terms and concepts that are dropped all too casually into discussions about teaching with computers.

In chapter 1, "Inventing Invention," I articulate a theory of invention that draws somewhat from classical rhetoric but mostly from instructional/cognitive psychology and collaborative learning theory. Specifically, I look at three mental processes, or domains, while constructing this theory of invention, all of which, I claim, are a part of "what writers do":

- *Noticing* as an integral process of discovery
- *Forming and shaping* relationships and connections that are created from the disorder of writers' discoveries
- *Reflecting* on the disorder of invention.

Much of this theory is, on the surface, not necessarily grounded in technology studies. However, I conclude that carefully reading cognitive and learning theory forwards new possibilities for regarding the use of computers in our writing classrooms.

Chapter 2, "Inventing Discussions, Inventing Pedagogies" unveils two important areas of inquiry in this book. First, I introduce Computer-mediated Discussion (CmD) and its use in facilitating invention processes for student writers. I have gathered here numerous portraits of students' computer-mediated discussions, both effective and ineffective, to illustrate the collaborative communities that did and did not evolve from them. My experience working with CmD technologies enabled me to see three benefits important to writing teachers. First, students begin to see writing and discussion as shared experiences. Students also gain contextualized writing experiences that will feed into other writing they complete. And finally, students increase their participation in class discussions and in the overall amount of writing they produce. Besides exploring CmD, this chapter also introduces a theory of inventing new pedagogies while working with technology. Current convention promotes an approach that merely fits existing teaching practice into new technology. However, I counter this position by showing how my own experience using the technology allowed me to imagine new pedagogies that met goals I had for my student writers.

The next chapter in the book pulls together the experiences my students had with the World Wide Web and with computer-mediated discussion. In

chapter 3, “Inventing Hypertext Reading,” I explore possibilities for teaching invention using the World Wide Web. I argue that we need to bring a method of invention to this new technology if we expect our students to use it effectively in our writing classes. Utilizing the discoveries I made observing students’ experiences with hypertext and computer-mediated discussion, I created a working definition of instructional Web sites:

- Their purpose is teaching a particular subject.
- They act as an information resource.
- They serve as a virtual meeting space for students and teachers.
- They facilitate specific pedagogical goals of a course.
- They provide a space for students and teachers to make sense of their experiences with virtual worlds.
- They give teachers a glimpse into students’ learning processes.

The chapter illustrates these defining qualities by providing examples of the Web site used to teach composition at the Marion Campus of the Ohio State University.

Chapter 4, “Inventing Hypertext Writing,” focuses on an extensive research study that examines students’ work from multiple perspectives to provide a profile of student thinking and learning as enriched by computer technology. I present an elaborate classroom portrait of how developmental college writing students created hypertexts that later served to support their invention processes while writing a required, traditional academic text. I also explore how students’ self-constructed definitions of hypertext influenced their use of and experiences with the technology. Although the software and hardware configurations students had access to were relatively simplistic, I argue that hypertext provided students with a concrete, sophisticated illustration of not only the goals of the course, but also of their own cognitive strategies for learning.

The final chapter of the book lays out an entire course where various invention technologies are used. Chapter 5, “Inventing Scenes,” describes a second-year composition course where students studied documentary films. Early in the course, students completed a number of traditional writing assignments about the films they were viewing. However, the course concluded with a class project where students were asked to create “documentary Web sites.” Instead of looking at assignments and technologies in isolation of the course in which they are implemented, as I have done in previous chapters, this work examines an entire course. My reading of students’ work not only looks at their invention processes, but also it raises questions about teaching new text forms in traditional academic courses.