

Teaching Digital Rhetoric: Community, Critical Engagement, and Application

DigiRhet.org

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The authors of this work participated in a Digital Rhetoric course taught in the Professional Writing (PW) program at Michigan State University in the fall semester of 2004. Both undergraduate (from sophomore to senior standing) and graduate students (MA and PhD) attended the class, from fields of study including English; economics; critical studies in literacy and pedagogy; professional writing; rhetoric and writing; and telecommunications, information systems, and media. The focus of the course was to address two questions: What is digital rhetoric? How do reading and writing practices change in digital environments? The course was organized around three main goals: to explore the dynamics of digital reading and writing by examining the rhetorical, social, cultural, political, educational, and ethical dimensions of digital texts; to interrogate issues of technology and literacy; and to examine identity (including gender, race, class, and more), subjectivity, and representation in digital spaces.

Course topics included exploring the history of the Internet and the World Wide Web; doing digital research, searching the Web, and thinking about information literacy; interrogating digital literacies (including a focus on reading and writing in digital spaces, dynamics of print and digital publishing, and video-game literacies); examining issues of access and divides

(specifically focusing on race, class, and economies, and also on dis/abilities and usability); researching the histories of Internet economies; exploring the dynamics of digital ownership and issues of authoring, authority, and intellectual property in computer-mediated, networked spaces; exploring digital culture jamming¹ and internetworked politics; examining issues of digital identity (including emphases on gender and online communities); exploring digital visual rhetorics; examining new media; and thinking about cyborg, biotech, and digital bodies. Course topics and readings were designed to equip students to

- explore and understand digital spaces as deeply rhetorical spaces;
- understand the sociocultural dynamics of digital writing spaces;
- better understand the multiple and layered elements of digital writing conventions and digital documents;
- become more sophisticated navigators of the information available in digital spaces; and
- become more effective writers and communicators in digitally mediated spaces.²

In this essay, we draw upon our experiences in the digital rhetoric class to first contextualize digital rhetoric, providing a thick, collaborative definition with examples to support our understandings as they emerged in the class and have evolved since the class ended. We build toward a set of recommendations for teachers interested in teaching digital rhetoric or interested in integrating digital rhetoric approaches in their classrooms; these recommendations are generated from recently published literature and from our experiences in the digital rhetoric class. This work engages the conversations of scholars such as Jeff Grabill and Troy Hicks, Cindy Selfe, Gail Hawisher, and the New London Group (among others) by continuing to examine the ways in which digital technologies affect our practices as writers and teachers and to develop approaches for negotiating these influences.

Setting the Stage: Understanding Digital Technologies and Their Effects

The following section describes the ways that digital technologies have shifted how we think about writing and teaching. By examining our approaches to literacy, the ways that digital technologies have converged, the digital divide, and the social and cultural shifts prompted by a growing digital landscape, we hope to articulate the foundational changes needed for writing pedagogies to account for the effects of digital technologies.

That digital technologies have proliferated in our society is not surprising, given the race to conquer technology-related media and markets; they are obvious, for instance, in the yearly profits of cellular service providers, and in the competition within the Internet service provider (ISP) market. In our classrooms and at our institutions, our friends and colleagues work—and, at times, struggle—to keep up with the tools available, to integrate digital technologies into their writing classrooms, and to gain access to the means and to the professional development required to teach in digital spaces. Our departments and colleges struggle to renew outdated tenure and promotion materials to recognize digital work. The programs of our conferences reveal a rise in sessions, panels, and featured speakers addressing issues of multi-media literacies, new media, digital technologies, and more. The tables of contents of certain journals reflect a space being crafted through the *absence* of certain topics and technologies to actually *resist* digital technologies and to avoid theorizing and researching their uses, their roles in our classrooms, and the ways in which they shape our practices.

The recommendations of educational organizations such as the Conference on College Composition and Communication (CCCC), the National Council for Teachers of English (NCTE), and the American Library Association (ALA) include language that reflects the need to teach and encourage students to gain technological literacy. The CCCC “Position Statement on Teaching, Learning, and Assessing Writing in Digital Environments” (2004: n.p.) calls attention to the fact that “classes and programs in writing require that students compose digitally”; the resolution continues to describe the ways in which writing changes shape in digital spaces. The resolution addresses the ways in which some of our assumptions and practices of writing don’t change shape in digital environments, but also calls attention to the multiple and extended facets that require our attention when we ask students to compose with computers and across networks (for example, economic and cultural barriers must be addressed, access must be assured). In addition, in the “Informational Literacy Competency Standards for Higher Education,” the ALA (2000: n.p.) identifies informational literacy as crucial to today’s “environment of rapid technological change and proliferating information resources.” In these standards, the ALA acknowledges that informational literacy and information technology are inseparable, and that, along with acquiring technological skills needed to *use* technology, technological “fluency” requires that the information-literate person have a “deep understanding of technology.”

Clearly, our notions of literacy continue to migrate with new contexts and new technologies, and as teachers of writing within ever-expanding technologies we must find ways to negotiate the ideological, political, and culturally situated realities of literacy (see Heath 1983; Street 1984; Fishman 1988; Scribner and Cole 1999; Wysocki and Johnson-Eilola 1999; Brandt 2001; Gee 2003; Delpit 2004). Furthermore, we need to find ways of articulating within our pedagogies the ways that tools mediate literacies (Cushman 1998; Grabill 1998, 2003a, 2003b; Selber 2004). A starting place for such pedagogical negotiations is in the lives and realities of the students who enter our classrooms. In order to understand the impact technologies have on writing, we need to understand the impact converging technologies have had on students' daily lives.

Living and Writing in a World of Convergence

A challenging and remarkable reality—at this particular cultural, historical, technological, and financial moment—is how for many people (of a certain economic class), digital technologies have infiltrated so many aspects of daily life and everyday communication. This is, in part, a result of the ways in which technologies have converged in recent years. Never before, for instance, have writers had at their fingertips the tools to almost seamlessly integrate text and graphics (and, for the savvy, animation, audio, video, and other elements) and to dynamically publish and widely distribute the products of that convergence to virtual spaces. Jay David Bolter (2001: 2) characterizes our particular social and intellectual moment as the late age of print: “Word processing, databases, email, the World Wide Web, and computer graphics are displacing printed communication for various purposes . . . the distinction between lasting texts and pragmatic communication have broken down, and all kinds of communication are being digitized.” We would argue that we are in the *very* late age of print, well into a world of writing and document distribution that primarily happens digitally. Networked devices create a new kind of writing space, and this space changes not only writing processes, but also communication dynamics between writers and readers, and between writers and the devices themselves.

In a *Forbes* magazine article, Bill Gates (1999: n.p.) acknowledged, in the subtitle of the article, that “the next step for technology is universal access.” Gates wasn’t talking about access, perhaps, in the ways in which we would talk about universal access (for example, access that helps to bridge the digital divides within the United States and the continually growing rift between technology haves and technology have nots across nations and

continents). Rather, Gates was imagining a soon-to-become-real world of “everyone, anytime, anywhere” use of digital technologies—technologies connected in robust ways to one another, allowing users to connect across time, place, space, and medium. Gates noted:

We live in an age where voice, data, and video are just bits, ones and zeros to be pushed down the broadest pipe or around the most accommodating slice of spectrum. Bits are agnostic. They don't care how they get where they're going—only that they arrive in the right order and at the right moment. The ubiquity of bits is already empowering the kind of hybridization that most people have envisioned for consumer electronics these past two decades—multifunctional devices such as modern PCs, WebTV, cable modems, and smart phones.

Convergence is at the core of Gates's essay, and he appropriately acknowledges the power and potential of machines that speak to one another seamlessly, creating a world in which all of our tools and gadgets are “smart” and all of them are interconnected. These networked writing technologies have, as Grabill and Hicks put it, rhetorical, interactive, and pedagogical implications. In their recent article arguing for the importance of engaging multiliteracies and teaching digital writing, Grabill and Hicks (2005: 304) note that digital writing forces us as writers and teachers to closely attend to aspects beyond mere text on the page, into a realm of “means and mechanisms for production . . . mechanisms for distribution or delivery; invention, exploration, research, methodology, and inquiry procedures; as well as questions of audience, persuasiveness, and impact.”³ Further, they argue, digital writing tools and techniques allow for deeper and often more collaborative and interactive means of publishing, distributing, and responding to writing. The authors also note the ways in which teaching must be rethought to better address the global interconnectivity and interactivity of digital writing practices and products.

Several crucial variables influence who can actually use such technologies and how they are employed. For instance, a concern often voiced in our intellectual community relates to issues of access. Lester Faigley (1997), Cindy Selfe (1999), Jeff Grabill (1998, 2003a, 2003b), Barbara Monroe (2002, 2004), Teresa Redd (2003), and others have raised concerns related to individuals' and communities' access to technological tools and to the literacy skills required to make meaning with such tools. Howard Besser (2001: n.p.) has helped to shift our focus from access to the tools themselves (which is less and less a concern as technologies are more and more broadly disseminated)

to access to publishing and publication venues. That is, the emergent and rapidly growing divide is between those who can and do write to and publish in digital spaces and those without the literacy skills, server space, and technological capacities to do so. Laura Gurak (2001: 13), in offering a definition of “cyberliteracy,” has also reminded us that engaging digital media requires us to “understand, criticize, and make judgments about a technology’s interactions with, and effects on, culture.” Further, she claims, being cyberliterate means voicing opinions about technologies and their effects, actively making meaning about and within networks.

To expand upon Besser’s concerns—because we think they provide a chilling and realistic glimpse of the digitally divided future—as the digital divide becomes older, we see a shift in how the divide continues to function as a rift, a rift that poses significant concerns for public life and public writing. Although the digital divide has been spoken of as an issue of material access to technology, we see the divide expanding to include problems specific to digital literacies and rhetorical abilities. We see a divide where students may download complex, multimodal documents but lack the training to understand how to construct similar documents. We see a digital divide where the rhetorics of digital documents become increasingly layered in new technologies and are engaged by one-way reception rather than through true interactivity and collaborative meaning making. One-way reception of information in digital space restricts the technical and educational resources needed to reengage in a rhetoric of multimodal response and civic re-production (Sheridan, Michel, and Ridolfo 2005). The new, emergent digital divide we will negotiate as teachers will be between those with and without access to the education and means to make use of multimodal civic rhetorics.

Examining Process, Products, Contexts

To narrow this big picture of digital technology, convergence, and interactivity down a bit further, if you were to ask students about the technologies they use and how those technologies shape their lives, you might hear responses like those generated in our first week of the digital rhetoric class that this manuscript draws on as its core source of information. The list we generated was extensive, ranging from a digital alarm clock; an interactive mapping and direction-giving device one student had in her car; a device for runners to clip onto their shoes that digitally records their progress at time markers set for a marathon; a digital meat thermometer with an alarm that ran through a student’s oven; a “virtual girlfriend” a student was “dating” that sent text messages via cell phone and e-mail; a digital audio recorder that allowed a

student to record notes and thoughts as she commuted to campus, which she could then connect to her computer to transcribe her voice to text notes with the software that came with the recorder; a networked PlayStation console with a headset so that geographically distant players could not only compete against one another online but also speak to each other while gaming; a grocery store keychain card, which promised access to savings and specials but which students recognized quite quickly as a tracking device to monitor purchases; a USB drive that worked as a portable miniature hard drive and virtually replaced all other media (e.g., floppy disks, CDs); and digital cable and TiVo, which several students had in their homes. The infiltration of these different technologies in students' lives varied greatly; for instance, when the student who brought in her USB drive to show and talk about separated it from her keychain and held it in the air, at least ten other students immediately grabbed their keychains or dug in their bags to show their own USB drives and talk about common practices, different uses, storage capacities, cost, and so on.

When we considered the ways in which these technologies interpellate us—as viewers, users, consumers, and writers—and interrogated the ways in which these devices play a rhetorical role in our lives, many among us were quick to note the ways in which instant-messaging technologies, for instance, alter language patterns and writing processes. Others argued that text messaging via cell phone changes the ways in which we communicate and even the ways in which we use our hands. Students debated whether being able to code-switch relatively seamlessly from oral speech, for instance, to academic written English to text messaging was merely code-switching or actually bilingualism. Students negotiated whether being able to read code and metatags buried underneath, within, and across devices and digital spaces was a literacy practice or constituted its own semiotic shift. Students also raised the point that compatibility issues become literacy issues as certain devices talk to one another, yet other devices remain isolated, leaving users disconnected and voiceless.

It should be clear from the tone and tenor of Gates's article, by the rich list we constructed, and by the emergent technologies that continue to become very real possibilities for our cars, our homes, our offices, our classrooms, and other facets of our lives that computers and other digital devices are not just tools for writing and communication.⁴ It should also be clear from the discussion above that the dynamics of reading, writing, production, and distribution are fairly rapidly shifting. Lester Faigley (1997: 34), in his chair's address at the 1997 Conference on College Composition and Com-

munication, characterized this time as “the digital revolution of electronic communications technologies.” Digital technologies have indeed changed the processes, products, and contexts for writing in dramatic ways. James Porter (2002: 384–85) contextualizes our very late age of print and reminds us that “the revolution is the networked computer and the social/rhetorical contexts it creates and the way its use impacts publishing practices. . . . the real story is the use of the tool in its particular social, pedagogical, and rhetorical context.” It is this “real story” that created the shape of our class, that frames our work here, that contextualizes our understandings of digital rhetoric, and that scaffolds the suggestions we have for teachers and scholars.

What We Mean by Digital Writing and Digital Rhetoric

Digital Writing

To be a bit more specific, when we refer to “digital writing,” we are referring to a transformed composing environment—that is, to writing produced on handheld and desktop digital devices and distributed primarily via wireless and wired networks. The tools themselves are revolutionary, but the more important, more significant revolution is the possibilities for connection and communication—framed by convergence and interactivity (Porter 2002; Grabill and Hicks 2005). Connectivity allows writers to access and participate more instantaneously within digital spaces and to distribute writing to large and widely dispersed audiences.

This cultural shift is observable in the way that people are using online spaces: a 2003 Pew Internet and American Life study reported that “44% of U.S. Internet users have contributed their thoughts and their files to the online world” through posting written and visual material on Web sites, contributing to newsgroups, writing in blogs, conversing in chat spaces (such as instant messaging), and via other digital means. In our particular class, the various ways in which lives were being written and composed online were evident in such projects as Suzanne Rumsey’s exploration of heritage rhetorics, family identity, and digital space. Rumsey found that heritage literacies are manifested through genealogy Web sites that offer expanded means of ancestry research and ways for hobbyists and researchers alike to understand collective pasts; digital spaces also offer multiple ways of creating online family memoirs and memorials (see, for instance, www.virtual-memorials.com).

Another class participant, Tina Urbain, constructed a fragmented narrative of her digital literacy experiences, layering pop-up windows of theoretical commentary under more traditional visual and alphabetic narrative evidence. For another, more geographically local example, when the grass-

roots student organization MSU Students for Economic Justice transitioned the distribution of its writings from e-mail and print flyers to include the additional publishing element of a Web-based content management system (CMS) of participatory publishing, members learned that the new system of archiving and delivering writing lends itself well to independent media (see www.msusej.org). The members of the organization use the system to post media alerts, share draft news releases, and distribute other documents outside of and to traditional news outlets. The system not only supports open, shared structures of authoring but has also productively changed the way the group promotes and distributes information on time-sensitive activist issues and campaigns.

Martine Rife, a digital rhetoric and professional writing PhD student whose MA thesis analyzes black-and-white family photographs from the early 1900s, revised her online portfolio to serve as an identity anchor to her scholarly work. In her online revisions, she threaded a professional identity through her Web space by linking the visual and digital to the traditional and historical, by incorporating black-and-white 1940s photographs, along with new Courier fonts to suggest old-fashioned “typewriter” text. Another student in the class, Angela Haas, focused her final class project on writing into and across digital spaces, through the creation of *Native Web: Making the Net More Native to American Indians*, a project designed to illustrate that although American Indians are typically absent from the national discourse on digital literacy, they have the ability to shape the culture of the Web and the evolving definition of digital literacy in meaningful ways. The site offers a counterhegemonic online presence of and for American Indians, as American Indians have historically been absent from government and other nationwide surveys on the digital access and online pursuits of Americans. The site also offers American Indians skeptical of technology and its presence in their own lives a sense of how other American Indians have appropriated the technology to preserve their cultures, languages, memories, and histories—and to provide “outsiders” with accurate, respectful, and responsible digital representations of their cultures from which others can learn about indigenous peoples.

For many modes and spaces—such as in the examples above—writers create documents and craft texts that draw upon multiple media elements and that require them to attend to the possibilities and limitations of the spaces in which they publish and distribute their work. Writers quickly find that writing for and reading on screens, for instance, is very different than writing for and reading on paper. And screens certainly vary—the screen of a cell phone

is different from the screen of a PDA; the screen of a typical desktop computer monitor is different from the screen of an information kiosk. Text also changes shape when it becomes just part of a floating, yet-to-be-anchored mix of media elements, when sound intersects it and when images revolve around it. Further, because of the connectivity afforded by digital spaces, audiences and writers can be related to each other more interactively in time and space. The ways in which composers can find, download, and remix media elements, publish them, and gather feedback in a forum or via a blog dramatically change with the power and speed of networked space. As many scholars in computers and writing have noted, this context presses up against larger issues of intellectual property, plagiarism, access, credibility of sources, and dissemination of information—all of which orbit around digital writing.

Writing is no longer a purely text-driven practice. Writing requires carefully and critically analyzing and selecting among multiple media elements. Digital writers rely on words, motion, interactivity, and visuals to make meaning. Available computer software applications, for instance, allow writers to more easily manipulate and embed visual information in their documents. Even basic word-processing applications come with fairly large clip-art collections and offer the ability for writers to create data displays like charts, graphs, and diagrams. Most Web search engines allow writers to search for photographs, animations, and video clips to download and use in documents, Web pages, and digital movies. These tools shift the ways in which composing takes place: they change the way we do research, the way we produce texts, the way we deliver our writing. Cell phones with cameras allow users to capture a moment and distribute it instantly, with or without the context of voice or text message. PDAs allow us to write field notes, capture audio, and grab chunks of video to be moved, most often into another digital context.

As Chris Anson (1999: 264–65) notes, that “personal computers have done little to disrupt our decades-old habits of working with and responding to students’ writing is partly because the channels of electronic media have been separate and discrete. Video has been kept apart from computer text, audio systems, and still pictures, requiring us to use different equipment for each technology (and allowing us to focus on computer text to the exclusion of other media).” These media are no longer separate but instead are woven and interconnected. We would argue that all writing is computer mediated; all writing is digital. Writing today means weaving text, images, sound, and video—working within and across multiple media, often for delivery within and across digital spaces. And, perhaps now more so than ever before, writ-

ing requires a deep attention to context, audience, and meaning-making across the multiple tools and media available to us as writers. Scott DeWitt (in Grabill and DeVoss 2001) describes composing in digital spaces with multiple media as having to “do with using a variety of technologies . . . computer and digital-based technologies to create very rich and layered texts, texts that aren’t flat texts . . . but incorporate graphics and film and sound and photography.” This type of writing clearly collides complex technologies and tools. The processes of filling the space of a screen are quite different than the ways we traditionally fill the space of a page. “Computer” and “human” languages work apart *and* come together. Writing intersects with software interfaces, file formats, and file compression (see, for instance, Kress 1998, 1999; Wysocki 1998, 2001; Cope and Kalantzis 2000; Hocks 2003; Hocks and Kendrick 2003; Manovich 2003; Ulmer 2003; Wardrip-Fruin and Montfort 2003).

Digital Rhetoric

As individuals and as educators, we have a responsibility to understand the power of purposeful discourse—particularly in public digital spaces—and the ways it can either be used for democratic, socially responsible ends, or used to marginalize and colonize. As Porter (2002) and others have noted, many writing technologies have altered and, at times, streamlined the writing process. Only a few writing technologies, however, have had truly dramatic social impact. The printing press is one; the networked computer is another. The convergence of digital tools is yet another that we will witness unfolding in the coming years. It is crucial that we are equipped to chronicle, to research, and to interrogate these technologies for the ways in which they alter the landscape of our pedagogy, our approaches to research, and our conceptions of how individuals write and publish together. As Johndan Johnson-Eilola (1998: 17) has argued, we live, are composed, and compose “at the nexus connecting an apparently infinite number of social and technological forces of varying weights, strengths, and directions.” Charting these forces, measuring the weights of change, assessing the strengths (and weaknesses), and mapping directions requires attention to electronic tools and digital writing practices.

We thus draw from and strive to extend classical and more modern definitions of rhetoric. It is important for our discipline to define digital rhetoric because, as Kathleen Welch (1990: n.p.) notes, “rhetoric, including the composition of texts in all media, has the capacity to make people conscious of the unprecedented power of print and electronic texts as systems of communication and of indoctrination.” Digital rhetoric also shifts the productive

technē of the rhetorical process (as typically instantiated in composition and other writing courses) from primarily invention-driven to a broader rhetorical approach that privileges arrangement as a focal activity and reclaims the importance of delivery and memory as key areas of rhetorical practice. Thus, digital rhetoric is “rhetoric” that is “digital,” yet it is a great deal more. When we first attempted to articulate our thoughts as to what digital rhetoric is, we came up with lists that included items such as

- the exploration of the dynamics of an argument through the use of digital elements, such as interactive hyperlinks, visuals, and audio files;
- the use of digital technology to enhance a reader/audience/user’s comprehension of a message;
- the art of informing, persuading, and inspiring action in an audience through digital media;
- the ways that reading and writing practices and the dynamics between writers and readers change when text and other elements move online;
- a conscious awareness of the fact that choices to incorporate or exclude different digital elements affect the message, and experimentation with ways to improve the effect; and
- the analysis of the details of a digitally formed piece of information, such as the use of space, the color scheme, and the interactive elements in order to understand how to improve an argument or message.

Digital refers, at its technical base, to a discrete presentation of materials from a computerized source. Digital modes open the boundaries to a varied spectrum of devices including, but not restricted to, computers, PDAs, cellular phones, iPods, USB drives, and cameras. Aside from the hardware aspect of the term *digital*, we also refer to the many software applications used as part of the writing process to which information and data are presented on the previously listed devices. These software and hardware components combined give us our digital stage. As Angela Haas, in a journal she kept during the course of the digital rhetoric course, defines it,

Digital also refers to our fingers, our digits, one of the primary ways (along with our eyes and sight) through which we make sense of the world and with which we write into the world. All writing is digital, *digitalis* in Latin—which means “of or relating to the fingers or toes” or “a coding of information.” Given this, we should be reminded of writing known to us though history that was executed with the use of fingers and codes—from the Mesopotamian Cuneiform, to the Egyptian and

Mayan hieroglyphs, to the Chinese logograms, to the Aztec codices. It is these writings that provided the first artifacts of scientific and technological developments, hence the origins of technical communication, visual rhetoric, and digital rhetoric. These writings should be studied further to better understand the evolution and complexity of digital rhetoric and to re-vision and revise our notion of digital rhetoric as a “new” mode of communication.

As Jim Ridolfo defines digital rhetoric in his course journal, it is “a communicative object or series of communicative objects that are created, maintained, or disseminated through or within binary environments: digital rhetoric has the unique properties of being ‘immaterial,’ and does not directly face the physical boundaries of delivery that delimit analog rhetorics.” Digital rhetoric constitutes communicative acts that may include text, visual elements, and sounds. It concerns usability, as viewers/readers/users must be able to navigate information for a given purpose to be fulfilled. Digital rhetoric moves the purposeful communication off of the page and into systems, pictures, and electronic devices.

How Students Articulate Their Digital Rhetoric Needs and Interests

Although a dynamic, elastic approach is needed to explore issues of digital rhetoric, we found that three distinct threads ran through our goals and across our specific digital rhetoric class: the need for community, the need for critical engagement, and the need for application. Once students have found communities to which they can belong and relate, they need the opportunity to engage in genuine collaborative acts within those communities that incorporate the digital rhetoric principles and practices they are trying to master, which gives real purpose to course projects and allows students to connect to others inside and outside of the classroom. To make sense of communication in digital spaces, students need to engage in “real” digital communication—not only can they connect with people who can support them in their learning process, but they also can begin to use the technology in a meaningful way, with a purpose beyond fulfilling class assignments. Also, through participating in conversations about and around digital rhetoric, students can develop both their facility with digital technologies and their ability to express themselves effectively through them; we explain this further when we address the need for practical application.

Need for Community

The first of these threads is a need, sometimes unacknowledged, for a sense of connection to a community that is actively engaging with issues relating to either the practice of or the theory behind digital rhetoric. This desire for a connection to community goes further than a desire to feel as though they are not alone in their attempts to better understand a new and unfamiliar field; students need to understand that in learning about and contributing to the field of digital rhetoric, they are entering into a conversation that extends beyond themselves and their own experiences, that has relevance to others and importance beyond the walls of their classroom.

In a virtual sense, there are thousands of online digital communities that students can participate in, to varying degrees. Students can visit chat rooms or collectively authored fan sites to join or observe ongoing conversations about any number of topics; they can develop and post to their own digital journals or blogs and also read and respond to the postings of others; they can draw from and contribute to digital resource Web sites; they can engage in e-mail or bulletin board conversations with other learners from across the world to share gaming experiences and to share resources.

Students who find themselves introduced to issues of digital rhetoric also have a need for (and in the case of our digital rhetoric course, an appreciation of) a well-defined and supportive learning community within the classroom. The development of this sort of community can be fostered in any number of ways: through activities that foster a sense of shared goals and affinities; through opportunities to talk with other learners about issues that arise; through small-group exploration of topics, trial and error, sharing of experiences and questions, pooling of resources and knowledge—even through the kind of collaborative writing project that we now find ourselves engaged in. Through participating in these activities, students in a classroom can become a physical and virtual cohort. The actual classroom environment for our course was one conducive to sharing, talking, and general openness. The computer lab environment featured stuffed animals; a Lite Brite; a Mr. and Mrs. Potato Head; buckets of crayons, markers, and colored pencils; stacks of construction paper and stickers; chocolate every day; and, of course, a fleet of robust computers (Apple and PC). Virtually, the class was supported by an ANGEL site (MSU's course-management system) and by a Web site created and maintained by Dànielle Nicole DeVoss and added to throughout the semester. These spaces relate to some of the talking we did in class about space as well; physical and virtual spaces matter—profoundly. It's important that people feel comfortable throwing out thoughts and ideas, sharing things

they're working on, or asking what might feel like an off-the-wall question. Physical comfort plays an important part in this ease of sharing, and the use of physical and virtual space is crucial in developing a sense of community.

As important to students as the academic and nonacademic communities to which they belong is their interaction with mentors within those communities. We use “mentors” in this instance in a broader sense than it is usually employed; while traditional mentors are usually experienced participants in a particular discipline who work closely with one or more novice participants in order to guide their entry into a field, in this instance mentors are those individuals who provide inspiration or support, regardless of whether those students ever interact with them personally. These mentors could be, of course, digital rhetoric faculty at the student's institution, more experienced students within the classroom, theorists within the field of digital rhetoric whose work resonates with students, and digital rhetoric practitioners whose work serves as an example for students to imitate or draw inspiration from.

Need for Critical Engagement

Along with the need for community—a space in which students can take part in larger conversations and contribute to emergent discussions of digital rhetoric—students need to see digital rhetoric issues as consisting of more than simply learning how to use new technologies. Though it might seem to go without saying, students engaged in learning about digital rhetoric need to be able to answer for themselves what they mean by the term digital rhetoric, to be able to define the term and describe its characteristics in ways relevant to their own lives and rhetorical understandings. Students can work toward developing this understanding by considering and discussing the ways in which they (and others) use and are changed by the digital technologies with which they interact. Students acting as digital rhetors must adapt technologies to suit their needs, especially their needs as writers—the ways in which, perhaps, they use newly developed digital technologies to perform tasks they are accustomed to approaching in other ways (e.g., using text messaging to communicate with friends instead of a phone call, reading the online version of the newspaper instead of the paper copy). By engaging in deep reflection, students can begin to recognize their choices not only among the different technologies available but also among the different functionalities of those technologies.

Digital rhetoric is much more than learning the skills necessary to make a Web page, for example, or to capture audio files and import them into a digital text. Carolyn Handa (2001: 2) notes this dynamic when she argues

that “incorporating digital elements into writing . . . demands that we draw on our knowledge of rhetoric perhaps even more than our knowledge of HTML, design issues, or graphics software.” Students need to understand the nuances of digital rhetoric as well—to understand the pros and cons of choosing one technology over another, the stakes of composing Web pages with Macromedia Dreamweaver instead of an HTML editor, of selecting Microsoft PowerPoint to convey their message as opposed to Apple iMovie. In short, students need to understand not only the choices they have when composing in digital environments, but also how those choices themselves can influence their work’s reception. We thus frame critical engagement with needs articulated in a 2005 Writing in Digital Environments Research Center article, “Why Teach Digital Writing?” Specifically, we need to

- engage students not only in the technical (how-to) aspects of work with digital communication and composition media and technologies, but also with the critical analysis of that media;
- encourage students to explore different computer and communication technologies so that they may choose the best technology to facilitate their writing and the rhetorical situation to which they are responding;
- encourage students to practice composing, revising, and editing (through and with text, graphics, sound, still and moving images) using computers and communication technologies to improve their skills as writers;
- promote the understanding of both writing and technology as complex, socially situated, and political tools through which humans act and make meaning;
- encourage students to recognize that composing takes place within, is shaped by, and serves to shape social, educational, and political contexts;
- address the rhetorical complications and implications of paper-based and digitally mediated texts to enhance the critical dimensions of students’ thinking and writing; and
- recognize that the rhetorical dimensions of the spaces in which students write complicate the rhetorical purposes for which students write, including the arguments embedded within and expressed through the pull-down menus and formatting options of software, for example, and within the dynamics of virtual spaces, where students negotiate e-mail discussion lists, instant messages, Web pages, and other compositions.

By engaging these principles, students gain an understanding of the rich, embedded, and layered modes of digital rhetoric. Such scaffolding provides a framework to connect (and disconnect, deconstruct) the multitude of textual and verbal communication skills with computer-based publications

and to continually resituate notions of audience, purpose, and mode for each new digital task. These principles provide the framework, for instance, to encourage students to dig deep underneath digital compositions, a crucial critical skill. Students often come into our classrooms and approach tasks with an eye trained in treating text as prominent and all other aspects as invisible or unimportant. These critical principles encourage students to look beyond and underneath the text presented by a given digital work (either alphabetically or orally or even visually) to the method and details of presentation as a location of argumentation, both as they analyze works and as they construct them. Transitions, appeals to a particular genre, and other aspects that students may know to consider rhetorically when working with traditional (for example, “solely” alphabetic text) works can be more slippery when it comes to transitions within video, appeals made with a particular Web genre, use of color and font, and so on.

In sum, we use “critical engagement” here to refer to two concepts: the development of an understanding of the rhetorical complexities inherent in the use of digital technologies, and an understanding of how digital technologies can change both the ways users approach tasks and the ways they see the world.

Need for Application

Even if students manage to find the most supportive, nurturing learning communities imaginable and even if students are well versed in critical, analytical approaches to digital writing and rhetoric, all the effort put toward helping students learn digital rhetoric is wasted if those same students aren’t also able to see the relevance of digital rhetoric to their own lives once they leave their digital rhetoric classroom.

Although not every student in a digital rhetoric classroom intends to continue his or her formal study of digital rhetoric beyond that one course, each student needs to understand how their professional lives will be affected by issues of digital rhetoric, as well as how a better understanding of digital rhetoric and digital technologies will benefit them in their postgraduation careers. Although it isn’t practical to expect a course to be able to even superficially address the ways in which digital rhetoric is relevant to the varied professional interests of each student in the classroom, such a course should attempt to give students the foundation necessary to answer that question for themselves and to realize the importance of that information to their future goals.

In addition to placing digital rhetoric professionally, students can benefit from discovering its personal relevance. Students should be encouraged not only to express themselves in digital spaces through the medium of their choice but also to critically examine what it means to do so. Again, students must critically engage with their knowledge of digital technologies and the works they create through those technologies. If metacognitive activities are planned, where students discuss or write about their thinking, these generative activities can lead to productive means of applying the knowledge they have gained in the course.

Of course, students in digital rhetoric classrooms will also need a certain degree of fluency with digital technologies, and the ideal classroom will have as varied a selection of technologies as possible for students to try out and experiment with. But becoming an effective user of digital technologies is more complicated than simply being able to operate them; students need to understand the capabilities and underlying principles of each technology, the interactions of different technologies, the operation of one program vis-à-vis another, and the employment of multiple technologies to create one cohesive text.

Recommendations by and for Digital Rhetoricians

Cynthia L. Selfe and Gail E. Hawisher (2004: 17) posit that “new technologies and new media demand new multimodal understandings of key educational concepts like literacy and composition. They demand, as well, new pedagogies for teaching multimodal composing that can effectively cross geopolitical, linguistic, and cultural boundaries.” Because

forms of literacy have cultural life spans . . . literacies accumulate rapidly . . . when a culture is undergoing a particularly dramatic or radical transition. [Thus] . . . humans value and practice both past and present forms of literacy that exist simultaneously. Hence, in our contemporary culture, one making a complicated and messy transition from the conditions characterizing modernism to the conditions characterizing postmodernism—along with the related transitions from a print-based culture to a digitally based culture, from a verbal culture to a visual or multimodal culture, from a national culture to a global culture—multiple literacies were accumulating and competing; and they continue to do so. (18)

How do we answer Hawisher and Selfe’s call for new pedagogies that facilitate our students’ “messy transition” to a multimodal culture while still acknowledging their current individual, culturally situated literacies? We posit that we do so by returning to our students’ needs in the digital writing

classroom—that is, the need for community, the need for critical engagement, and the need for practical application. Consequently, we offer the following general recommendations for teaching (and learning) digital rhetoric, as well as more specific curricular activities for developing community, engaging critical approaches, and fostering practical application. Many of the suggestions that we collected from our Digital Rhetoric class focused on basic principles of student-centered pedagogy: provide structured assignments that are nevertheless open to students’ interests and needs; make room in the curriculum for exploration and experimentation; provide an environment conducive to engaging in both analysis and production of digital media (although chocolate and stuffed animals aren’t, strictly speaking, mandatory).

The pedagogical framework that we have constructed based on our assessment of student needs is not new in the sense of a radical revision of pedagogical practice, but it is new in its emphasis on the digital context as a specific location of rhetorical praxis. Our model is complementary, for instance, with the New London Group’s (2000: 33–36) pedagogy of multi-literacies, which suggests that instructors should engage students in situated practice (real-world examples and work that is relevant to their lives and work), overt instruction, and critical framing in order to produce transformed practice. We have focused, however, not on the instructional framework (what instructors should do for or to students), but on the ways that students’ needs are met when they are engaging in the analytical and productive practices of digital rhetoric.

We suggest beginning a course on digital rhetoric with definitions: “digital rhetoric” as a concept is both complex and nebulous, and it lends itself to a very wide range of media and activities. Therefore, the first step is determining both a theoretical and practical framework for examining digital work. The act of defining is a necessity we described above, and it is an act of setting boundaries. Discussion of elements and practices that should be included or excluded in a collaborative definition provides a rich opening for students to become invested in the class and invested in contributing to circulating notions of what digital rhetoric is. Digital rhetoricians must explore both theory *and* technology; critical engagement alone is just as insufficient as a curricular approach as would be practical application without the provision of tools for understanding how digital technologies work within social and cultural contexts.

A digital rhetoric course should provide a framework to connect the multitude of textual and verbal communication skills with computer-based publications, to assist in continually resituating individual and collective

notions of audience, purpose, and mode for each new composition, and to capture as well as tune the skills necessary for creating, maintaining, and critiquing a variety of digital compositions with both precision and dexterity. In terms of practical advice, we recommend that instructors both encourage and allow time for students to use and familiarize themselves with different forms of writing technology: in addition to readings and discussions of the uses of digital media, teachers of digital rhetoricians should teach the functions and uses *and* encourage the analysis and critique of hardware and software applications so that students can effectively use the technical tools to create rhetorically effective digital media themselves.

Finally, because digital rhetoric covers such a broad range of ideas and practices, it is important for instructors to draw on the experiences, histories, and knowledge that students bring to the course with them. As one member of the collective explains: “In order to teach ‘digital rhetoric’ I need to understand what my students can teach me about digital rhetoric. If digital rhetoric is something new that has arisen from the combined ingredients of rhetoric and electricity, then I must be able to explain its newness to students. I believe that this is the greatest challenge educators face—accurately explaining the significance and geometries of the technologies of digital rhetoric.” Below is a brief overview of specific assignments that support our three-part framework of community, critical engagement, and practical application.

Fostering Community

Digital rhetoricians exploring notions of digitally mediated community need to have opportunities to observe communities at work, but they also should be encouraged to develop projects that support or engage in community building as a practice.

Online ethnographies are one method of observing digital communities: Students may be asked to observe and report on particular discourse communities enacted via e-mail lists, discussion forums, or newsgroups—groups they can actually join if joining supports their goals and needs. Students can also examine and explore the blogosphere to determine whether it constitutes a digital community (or communities).⁵ The Web sites of people who belong to a specific discourse community may also provide a mechanism for exploring digital community: in our class, for example, we looked at the Web sites of academics whose work would be considered digital rhetoric (some of whom lay claim to the title of “technorhetoricians”), primarily with an eye to critiquing the interplay between their published work

and the online representations of their digital identities (and the disconnects between the two).

Students could also be asked to craft technology community maps, a mapping of cultural layers or planes that affect their access to and use of technologies and how and when those planes intersect and/or collide. To begin this mapping, students could ask themselves: To which communities do I belong? How has each separate community affected my access and use of technology? How might I describe my technological proficiency in relation to each of these communities? Writing a final reflective piece about disparities and similarities between and among communities might further engage students in thinking about how they have come to interact with technology.

Students should be encouraged to take on projects in support of particular communities, such as the development of Web sites and digital media for local or regional nonprofit organizations. Chad O’Neil, a member of the course, offers the following three-part assignment to move students from thinking about community from an outside perspective to exploring community as an ethnographic project:

1. Look at a digital production intended for a specific audience. These productions could range from video games to academic Web sites. Students begin by thinking and writing about how digital rhetoric is used within particular groups.
2. Produce a digital composition responding to the item(s) looked at in part one—in this composition, the student should play the role of a member of the audience/community. Students next consider audience/community membership and what issues might be important to those communities.
3. Finally, either through interviews of audience/community members or exploration of actual responses, the student writes about the differences and similarities between the role play and actual responses of members. Students are encouraged to reflect upon the perceptions of and actual practices of real communities.

Engaging Critically

Barbara B. Duffelmeyer (2002: 357–58) argues that “while we adopt more nuanced and complicated stances toward technology as scholars and practitioners, we must as teachers help our students achieve this balanced perspective as well” (357–58). Duffelmeyer continues to argue that we currently do not necessarily do so—that is, while we may see technology from a critical perspective, we don’t often enough work to equip students with the skills

to engage critical perspectives as they approach and use various writing technologies. Thus she asks, “How do we help students read in ways that continue the critical pedagogical work of seeing, creating, and acting from more complicated negotiated positions, rather than from the simple binaries that the cultural myths of technology promote?” (364).

This critical literacy is traditionally facilitated in composition courses by critiquing advertisements, movies, and other cultural phenomena; such critiques are also useful for the digital rhetorician when applied to digital media, although part of the examination should include close attention to how the particular practices of digital work influence the rhetorical dimensions of the object of critique. Assignments that address critical engagement should encourage students to critique the influence of technology on their communication practices, identity,⁶ and bodies; the ways in which they negotiate identity (both individual and community), literacy, power, and agency within computer-mediated environments; and to examine and reexamine their relationships to the technologies they employ regularly. Critical engagement assignments should also ask students to examine the societal and/or cultural constructs influenced by technology.

For students to think more critically about their technological use, a series of assignments might include digital and visual representations of daily use of individual technologies; daily/weekly technology logs; lists of perceived “gendered” technologies; reflections on which technologies make them feel more feminine or masculine; reflections on technologies that make them more aware of our physical limits; reflections on how race, class, and/or (dis)abilities have affected their (or their communities’) technological access and use; or reflections on differences and similarities between identity construction and ethos building in face-to-face and digital spaces.

One assignment that falls under the rubric of critical engagement is to ask students to examine and critique the interfaces of the computers they use, or to examine where computers and wireless access are accessible (and not accessible) on campus and explore what that might reveal about the implementation of technology in a particular location or context. An interesting approach to interface critique is to give a narrative voice to the application under consideration, much as Bruno Latour provides the mass transit system an actual voice in *Aramis; or, the Love of Technology* (1996). Martine Rife, for instance, asks students to give such a voice to the course-management system in use at the university, providing it with the agency to “talk back” to its users.

An expansion on the traditional advertisement analysis asks students

to find and analyze an advertisement, critically examining its use of markers of race, culture, gender, or sexual identity; using an image-editing program, students are then instructed to create a parody of the ad that highlights the elements they have analyzed and critiqued. The source could be a print or digital ad that is manipulated in an image-editing program, a radio ad that is remixed with digital audio software, or a television ad that is recreated or reedited with digital video-editing software. A reflection on the choices they made both when deciding what elements to critique and what methods they used to produce the final product is the final element of this assignment. This particular assignment engages digital rhetoric as both analysis and practice; in the traditional advertisement analysis, there is no complementary productive activity, thus reinforcing students' role as consumers rather than providing the opportunities for them to become producers (which is a key benefit of a digital rhetoric-based pedagogy).

Each of the aforementioned assignments strives to promote a critical pedagogy—a pedagogy, according to Duffelmeyer, that provides “an occasion for students to reflect on and articulate their relationship to digital technology, the forces that influenced the formation of that relationship, and the ways that they might develop some agency within the parameters of that relationship, thus opening the way for them to develop the more complicated and mature positioning relative to technology that computers-and-composition scholars advocate . . . [as] digital technology’s seemingly commonsense assumptions need to be acknowledged and explored, not unproblematically accepted or rejected” (358).⁷

Applying Skills in Practical Ways

In *Multiliteracies for a Digital Age*, Stuart Selber (2004) proposes a three-part framework for building curricula for students who engage in reading and writing in digital environments; he situates this framework as forms of literacy that work together in the development of the engaged and informed citizen/student. Selber proposes that students need to be equally immersed in functional, critical, and rhetorical literacies to fully understand and use digital technologies—these three literacy practices can help students move from being uncritical users of technology to acting and producing in their own right. For Selber, functional literacy entails learning how to learn about technology and how to develop learning strategies that can be used when encountering new interfaces or media. Selber nicely captures how our collective understands practical application—it is not just the how-to of particular

software applications but a more fully conceptualized practice of teaching and learning digital media (and thus supportive of digital rhetoric).

However, despite Selber's assertion that digital rhetoric is more than just software mastery, the proliferation of technology in students' lives, especially in computer-mediated classrooms, sends the message to novice students that they are not up to speed with the current culture of technology. Consequently, many students nonetheless feel that they must master many new technologies at once in order to be digitally savvy. After all, there are academic programs outside of rhetoric and writing that promote tools over strategy, and job postings that focus on software know-how over transferable systems knowledge. Thus, despite our deemphasis on software know-how, students receive conflicting messages from other sources that suggest that they must be competitive in the increasingly global job market, and learning more software as quickly as possible is one way to do so.

Drawing on Baudrillard, Giddens, and Castells, Jeffrey Weinstock (2004: 365–66) discusses this speeding up of Western culture and its implications for digital writing environments. Weinstock ultimately proposes a “pedagogy of patience,” where we “teach students when and how to be patient—as well as to attempt to be patient ourselves as we grapple with rapidly changing and developing communicative technologies and the mutating conventions associated with them” (380).

This patience can be facilitated if students are given the time to apply what they learn. To address our practical application framework, a variety of projects can engage students with different technologies. An example of a practical application assignment provides a selection of images and asks students to provide several different captions using image-editing software to manipulate the font, size, and effects of the caption (this is also a nice demonstration of the relationship between word and image). Similarly, writing instruction sets for specific tasks using particular applications (and user testing those instructions) can help students learn to explore the interfaces of the tools they will be expected to use as digital producers. Other practical application assignments might encourage students to work together in groups to explore a new (or new-to-them) technology and share applications of that technology with their peers in a computerized classroom, where everyone can follow along. Further, as teachers who teach with technology, we should share new technologies with students that we have not become fully proficient with yet. This will model for students the need to play with technology to explore its capabilities and brainstorm potential practical uses. This strategy also

helps to curb the urge to “master” technologies by affording students some sense of agency to determine which technologies are best suited for them to do the work they must do as students and professionals, and not simply and blindly accepting the industry standard or job posting software skill specifications. Thus, we should facilitate transferable digital skills, not isolated software skills and drill exercises, but contextualized, digital *technē*.

Practical application assignments can, as noted, be included as integral elements in assignments that address the development of critical engagement or the practices of community exploration and building; indeed, many of the assignments we suggest here combine elements of all three frameworks for teaching and learning digital rhetoric.

Conclusions

Technologies change continuously. Media evolve. Networks emerge, die, expand, and contract. As Mary Hocks (2005) recently put it at a talk delivered at Michigan State University, one of the primary frustrations of researching digital rhetoric is that “technology is always already over.” Disciplines, likewise, are living entities. Writing and other meaning-making practices certainly change shape due to the ebbs and flows of cultural events, historical happenings, economic shifts, and with the rise and adoption of information and communication technologies. This dynamic movement serves to remind us how powerful, potent, and important it is for us to analyze deeply the technological moment and the digital practices that emerge.

The New London Group (2000: 36) reminded us that not only do we have to chart the waters of these changes, but also that “classroom teaching and curriculum have to engage with students’ own experiences and discourses.” The group continued to discuss the ways in which cultural and linguistic diversity shape student experience. Add writing technologies to the mix, and we have an exciting space of potential and possibility for us to map, together, our notions of digital rhetoric and our approaches for navigating the contemporary currents of how meaning is made within and across dynamic, computer-mediated, networked spaces.

Notes

DigiRhet.org is a collective of individuals interested in digital writing practices.

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1. For an introduction to culture jamming, see “The Culture Jammer’s Encyclopedia” (www.sniggle.net/index.php) and Andrew Boyd’s “Culture Jamming 101” (www.culturejamming101.com).
2. More course information, including the syllabus and assignments, is available at www.msu.edu/~devosda/415.
3. Certainly Grabill and Hicks were not (and we are also not) implying that issues of invention, methodology, inquiry, and other rhetorical practices were not worthy of or allocated our attention before digital technologies. What they are arguing, however, and what we also argue later in this essay, is that digital spaces and devices offer rhetorical possibilities that *are* different than print possibilities.
4. For more on the thread of technologies beyond tools and ways to get beyond deterministic thinking about technologies, see Feenberg 1991, Haas 1999, and Nardi and O’Day 1999.
5. An excellent resource for the study of social intertexts of blogs is “Into the Blogosphere” (Gurak et al.), an online edited collection of essays that explores discursive, visual, social, and other communicative features of blogs (blog.lib.umn.edu/blogosphere).
6. See DeVoss and Selfe’s “‘This Page Is under Construction’: Reading Women Shaping On-line Identities” (2001) for their study of women as authors of and agents for their own identities. They also provide specific strategies for helping students to explore, develop, and communicate more effectively in digital environments.
7. See Duffelmeyer (2002: 370) for several concrete assignments that ask students to make relational and “meaningful connections among various elements in the circuit of cultural production that concern digital technology.”

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