Using Multimedia to Teach Communication Across the Curriculum

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Introduction

Writing intensive courses offered in departments across the country reflect the wide range of written, oral, visual and electronic practices fostered by new technologies. The emergence of programs that don't just focus on writing, but Electronic Communication across the Curriculum (ECAC)—a phrase coined by Donna Reiss, Richard A. Selfe, and Art Young—underscores the importance of using curricula and assignments that emphasize the visual and oral communication taking place within electronic environments (17).[1] From the early listservs like MBU-L and WAC-L to online scholarly resources like *Academic.Writing*, we have long traditions in Writing Across the Curriculum (WAC) of using electronic systems to exchange information, to create academic communities around writing and to encourage electronic discourse. Projects that build ongoing and visible electronic information resources for teaching on a national level, while also keeping teachers deeply connected through reflection on teaching and learning experiences, include the work of Michael Kelly, Joe Essid and Reiss with the Epiphany Project housed at Virginia Commonwealth University, Randy Bass's work in American Studies online at Georgetown University, and the electronic journal *Academic.Writing* (aw.colorado.edu) run by faculty at Colorado State University. These kinds of nationally recognized efforts require time and commitment to the building of research resources and active participation by teachers. They work because they are driven by a diverse vision of how we reflect on and transform our teaching using new practices and technologies, and they help sustain teachers nationally who are engaged in this work. Often begun and supported by grants, they must then be maintained by these universities and the considerable efforts of our colleagues who design and manage these projects.

Local efforts and programs that link WAC with technology probably have the most lasting effect on institutions, as Todd Taylor argues in his analysis of using Web-supported WAC to build a local community (134-35). That effect occurs because faculty members perceive real changes in their teaching—what the study *In the Long Run* describes as "philosophies and attitudes about teaching," "new confidence and enthusiasm," and perceptions of "what works" and what doesn't in WAC methodology (Walvoord, et al. 78, 137). The ambitious study *Transitions: Teaching Writing in Computer-Supported and Traditional Classrooms*, for example, tracks the long-term changes in teaching fostered through local faculty development and the on-going class-room-based research in computer-assisted writing and WAC courses (Palmquist et al.). Thus, in spite of the logistical struggles and various learning curves for faculty across disciplines described by Taylor, by Essid and Donna J. Hickey, and by the faculty at Colorado State, these scholars all found it most worthwhile to encourage the grassroots efforts of faculty building their own electronic materials in our own institutions.

Local WAC programs at colleges and universities are increasingly wired in various ways and many, including my own, are now caught up in statewide initiatives for integrating technology into the curriculum and for creating online courses. The trend of delivering courses through a single, online course management system has become quite popular, largely because such systems have streamlined student access, faculty training, the campus management and system-wide commitment of technological resources, and even the collection of highly useful data such as electronic writing portfolios. However, at the same time, these regimented management systems can limit faculty teaching practices and student learning experiences. Administrative controls can cast students in the role of passive receiver even as they engage in electronic discourse. Adding a Web-enhanced component to a course that does little more than deliver electronic information and provide a chatting space is frighteningly similar to the perception of adding on writing to the "real" content of a course, a perception that WAC Directors must continually fight. When pedagogies are seen as add-ons, nothing really changes in terms of the epistemological assumptions behind how students access and understand the content. Too often, the practices institutionalized with these programs cast faculty as content experts simply waiting to re-package or sell their knowledge in the latest, sexiest form. Web-based course packages can, like any other technology, simply promote an information dump that's more convenient and doesn't waste paper. In fact, any packaged software can foster passivity by presenting

certain kinds of interactivity in preset ways—think of the point and click of the Web page, the routine question and answer of the bulletin board, the flying text on the PowerPoint screen. Unless students are taught both to notice these assumptions in the software and to counter them with active, design-based learning experiences, students once again become passive receivers of information in our technology-enhanced courses.

To accomplish a truly active critical pedagogy, however, first requires a new orientation for faculty who are teaching with technology. When looking at the recent history of educational electronic communication practices, we find that new technologies, like writing, can initially inspire faculty and foster innovative approaches to teaching and learning. Computers and composition scholars firmly established the student-centered collaborative pedagogies possible with new writing technologies, which in turn helped propel the fusion of WAC methods with technology-enhanced teaching.[2] Increasingly, research in professional and technical communication has influenced practices in WAC programs integrating professional writing activities into the curriculum, especially by offering current information on the flexible skills students need with communication technologies in order to become successful professional communicators in their workplaces.[3] Computers and composition and professional and technical writing practices all help establish that the traditional belletristic academic essay cannot be the only kind of writing students do in college. As Lester Faigley and Susan Romano point out, millions of students now bring to college the experiences of reading and writing on electronic networks, and this kind of electronic communication intrinsically disrupts traditional literacy practices (49). The new interactive digital media technologies can support and inspire a student-centered and constructivist pedagogy, partly because Web development tools, multimedia presentation tools, and media editing systems—graphics, sounds, video, animations—allow students to take the lead and help one another with visual and interactive forms of online research and communication. When using technology where students get to take the lead, the teacher can shift roles from lecturer and expert to collaborator and participant: many times, students and teachers learn together, with students having the upper hand where technology is concerned.

To keep the spirit of this pedagogy and of WAC faculty development intact while also resisting the reductive and standardizing impulses of courseware, I want to advocate a particular kind of local faculty development program and make a case for some key practices: an immersive hands-on approach to working with faculty who incorporate

writing and technology into their courses, and an online writing pedagogy that incorporates interactive design projects using whatever tools are available—from pen and paper to digital video editing software. Ultimately, I argue that engaging students with multimedia production and presentation tools allows them to deconstruct the multi-sensory information available to them, to become designers of knowledge. Multimedia production projects—from the publishing of Web pages to composite video with voiceovers to the oral presentation of slides—can encourage students' work to take a visible and public rhetorical character. If students can engage in the process of production and assemble meanings for an audience of peers or professionals, they have truly redefined what they think of as research, they have activated a sense of purpose for their work, and they have recognized the impact of audience on whatever communication they do. When those projects are linked to community organizations, as they are in many professional writing courses, the rhetorical contexts of purpose and audience are made real for students. These strategies probably have the strongest presence in technical communication programs, but they can be used successfully in any course that emphasizes communication via digital technologies. When used strategically within a WAC program to teach communication practices, multimedia projects increase and expand a student's sense of audience while the work designing and producing multimedia documents helps students develop multiple, interconnected literacies.

It is a given that integrating multimedia projects into courses across the curriculum requires considerable effort, preparation, and new ways of thinking about teaching on the part of the faculty. Using a WAC faculty development model works well for integrating technology-enhanced learning into courses because WAC workshops have long been known to provide one of the best settings for productive interchange and inspiration about new methods for teaching and learning.[4] This essay advocates immersing faculty in interactive multimedia technologies and supporting them as they create and teach design projects from across the disciplines. If we want to promote active, student-centered learning with technology, we need to try it ourselves first and also reflect critically on our experiences as teachers. I focus here on my experiences with an intensive faculty development program used to integrate multimedia technology as a tool for teaching and learning communication across the curriculum so that I can evaluate the immersive approach to faculty development and discuss how, using Richard Selfe's terminology, to "sustain" it. After evaluating my experiences at two institutions—a small liberal arts college and also a large state university—I will summarize

how to implement some of these technology-enabled practices given different amounts of time and resources. When Web-based courseware systems are economical and streamlined, why teach faculty members to design documents and use complicated multimedia software programs? When complete and integrated Web-based access finally arrives on campus, why bother to set up an electronic classroom or any physical space for teaching and learning new technologies? I'll return to these questions in light of my experiences.

Faculty Development in Multimedia Across the Curriculum

Spelman College is a historically Black College (HBCU) for women in Atlanta that serves about 2,000 students. We began in 1996 an intensive faculty training program on the use of multimedia technology for teaching writing, communication, and research skills across the curriculum. This program was built upon a powerful history of faculty collaboration and interdisciplinarity at the college and a mission instilled by two well-known scholars and Spelman alumna who founded both the writing program and the women's studies program, Jacqueline Jones Royster and Beverly Guy-Sheftall.[5] These two program directors had high visibility on campus and extensive administrative sup-port—Royster was actually working as a dean when she designed the current writing center. Both program directors began innovative and wide-reaching faculty development projects that focused on diversity, writing across the curriculum, and teaching with technology. Their impact, and that of any subsequent director of this particular writing program, can be best described as influence—the kind of influence that Thomas Amorose describes as the small school WPA's most effective tool, especially during "those junctures in the cultural life of the institution where issues or plans essential to how the institution defines itself are being considered" (95).

Given the program's new mission to integrate multimedia technology into the campus curriculum, I came on board to help faculty members design classes in various content areas at the college that featured multimedia resources in a networked computer classroom. These efforts were centered in a well-established writing center and a multimedia-equipped classroom and development lab funded largely through a Title III Grant targeting HBCUs and funneled through campus operating budgets. The funds obtained from a Mellon Foundation Grant were used to hire consultants and create a new series of multimedia faculty workshops, to hire and train student assistants, and to support faculty through course release and classroom support during course delivery.

The courses culminated in a design project that would allow students to practice multimedia production skills developed over the semester and use these new skills to present their own academic research, and their responses to texts and other media in the course. By production skills, I mean that students edited videos, recorded sounds, created and edited graphics, and constructed Web pages, all on computers. But before these courses began, the faculty were introduced to all these same activities. They engaged in a two-week hands-on seminar that immersed them in all the newest multimedia production tools at the time. These hands-on workshops, which lasted three hours each, used consultants and assistants and focused on the creation of teaching materials designed by each faculty member. These faculty members came predominantly from the humanities, arts, and social sciences and were fairly new to technology-enhanced teaching. In the two weeks, we had the luxury of introducing a number of technologies to support writing and instruction: Microsoft PowerPoint for oral presentations; Adobe PageMill for Web-page authoring; scanners and Adobe PhotoShop for image editing; Adobe Premiere for Sound and Video Editing. We also included sessions on electronic conferencing using The Daedalus Integrated Writing Environment and analyzed the transcripts to see how our discussions about teaching practices took shape online. This training program culminated in the faculty member teaching a new or existing course in an electronic classroom using instructional multimedia—usually for the first time. They attended a number of follow-up workshops and presentations throughout the year while teaching and evaluating their courses.

In the spirit of the WAC program that inspired these multimedia courses, faculty development was the primary focus and the means for infusing the curriculum with new forms of teaching and learning. By building technology into the Writing Program, we created an integrated approach that fused computers and composition practices with new media technologies, that provided intensive hands-on training and support for faculty to create their own instructional multimedia resources, and that extended to instructional support in the computer writing classroom. This work also included typical WAC work of intensive collaboration on the course syllabi, on the design of writing assignments and projects for the classes, and on the techniques for day-to-day teaching in the computer classroom. With a faculty development lab adjacent to the computer writing classroom where faculty would be teaching, we had a center for training, learning and independent work by faculty and advanced students. Along with my collaborator, Daniele

Bascelli, and our student assistants, we provided on-going support to faculty while they developed and taught their courses for the three-year cycle of the grant.[6]

Bringing a wide range of disciplines and faculty members into dialogue in an electronic communication across the curriculum program deepened our collective understanding of teaching and learning using writing, critical thinking, and new technology. The faculty development program stressed pedagogical practices and ways in which teachers could more fully involve students in the process of research, discussion and discovery in a multi-modal and collaborative environment. After completing workshops, the faculty members used the electronic teaching environment, a networked classroom with windows in the middle of the writing center which arranged students in clusters and really discouraged lecture, but which also had a traditional breakout room nearby for face-to-face discussions. Some taught in this classroom in spite of its challenges and frustrations. Faculty were enthusiastic about the role that multimedia, especially Web resources, could play in presenting materials that went beyond course texts and increasing students' understanding of course content. Faculty members collected and developed extensive online research resources for their courses—resources that were then often added to by their students. Students and faculty agreed to make their work available to the public, primarily through academic conferences and the on-going presentation of this work on the Spelman College Writing Center Website (www.wcenter.spelman.edu). These faculty members reported an increased use of hands-on activities and less reliance on traditional lecture formats for presenting information. Even better, students reported that they took a more active role in the construction and design of these courses, and they learned much more from their expanded access to other audiences and to one another.

Evidence of these results emerged in interactions between the faculty and their students. So, for example, a Shakespeare professor who redesigned her class for the multimedia classroom cites the usefulness of Website links and electronic mail to get access to and communicate with theater professionals around the country. More importantly, she argues that the class Website (see http://www.wcenter.spelman.edu/ENG310_F98proj/Shake.html), designed and created by students to explore issues about colorblind casting of actors in current Shakespeare productions and film adaptations, "makes an actual contribution to Shakespeare studies." The project taught them "investigative technique, analytical skills, and something about the process of publishing and taking responsibility for one's scholarly work" (McDermott 4). The

class Website becomes an authentic learning experience that has brought students in touch with the content and goals of the course, as well as a broader audience of professionals. The sense of audience was amplified for these students who had contact with theatres and the opportunity to balance and present their ideas with the wide range of opinions on colorblind casting.

The use of multimedia for teaching and learning deeply impacted the individual teachers' classrooms as well as the campus learning environment. Getting away from traditional classrooms allowed faculty to develop a variety of more interactive class sessions. Group projects and multimedia-supported oral presentations increasingly became a focal point for these courses; this allowed faculty to encourage different presentational modalities, visual learning, and extensive feedback from instructors, students, and other members of the college community. For example, the Victorian Literature professor who adapted her course reflected, "I wanted to shift the pedagogical paradigm from read-write to a multimodal experience of literature" (Parekh). Many projects in her course incorporated video clips from film adaptations of the literary works, as well as complimentary background music, colors and spatial arrangements on the screen. She asked students to design multiple methods of engagement with the course materials, while communicating their findings to an actual audience of students and professors in oral multimedia presentations several times during the semester-long course. As a result of these projects, the teacher noted that students engaged in close and multiple examinations with texts and other media. They mentioned having fun and pride in their work, they inspired one another, and they seemed to use more diverse learning practices than the traditional read/write model of the literature classroom. These two English teachers both valued this successful application of computer-enhanced writing pedagogy, research, and Web design to the study of literature and both have presented these courses to their peers at professional literary conferences. Each has acknowledged the central role that time management, peer learning and flexibility plays in these kinds of projects. In spite of the inevitable frustrations of doing many new things and with technology failing to behave properly, both professors assessed and evaluated these courses as successful and truly formative teaching and learning experiences. Each stated she would offer it again in modified form, beginning with a more selective process for deciding what technologies to use and how to use them.

Are these teachers' experiences and reflections representative enough to suggest that we immerse faculty in time-consuming and expensive multimedia tools? I would argue that, unlike courseware or online

course management systems, these authoring and production tools have always offered and still offer the most promise for experimentation, for creating new forms of knowledge and for enhancing students' understanding of multimodal rhetorics. Multimedia production tools allow students to explore rhetoric as visual, verbal, and oral persuasive activity rather than just have them follow a preset path prescribed by the easier software's palette of options. Teaching multimedia design projects using interactive video and sound production tools, for example, can teach students compositional and rhetorical skills that are both verbal and visual (Hocks 158). This is precisely why composition scholars keep advocating the use of multimedia texts and authoring for teaching writing: learning HTML language as rhetorical practice (Heba), using educational MOOs to design and navigate online spaces (Haynes and Holmevik, and Joyce), analyzing interactive multimedia documents that collapse the arbitrary distinctions between words and visual information (Wysocki), and using digital video and voiceover recording to let students create and tell their own stories (Cushman, Lambert and Mullen).[7]

Once faculty see the full potential of multimedia, they can actually rethink how knowledge is both constructed and received in their fields.[8] Teaching faculty to design their own Websites, rather than assigning that work to a technical person, means they have the opportunity to rethink a course project or lecture as something that links the connections between visual arts, performance, and, in this case, literature in one semiotic space. They consider visual presentations, films, readings and music together so that each mode becomes a part of the way into understanding meaning and messages as rhetorical. Because faculty engage in the process of production themselves and see how digital tools actually construct knowledge and create representations of "truth," they then can try to develop this kind of process-based learning for their students. They truly rethink their approach to teaching in terms of active learning, with the spirit of experimentation that they themselves have experienced, and then transfer this exploratory approach to their students. I was surprised by teachers' willingness to take on very difficult software programs when they had little or no experience with technology at all. I was amazed at the ideas the faculty came up with through the trial-and-error processes of trying things themselves and getting frustrated during the time-consuming hours in the lab. Nationally-known and successful faculty development programs like Computers in Writing Intensive Classrooms, offered each summer at Michigan Technological University, follow this model of immersing faculty in new technologies and in intensive, on-going reflection on

teaching. I truly believe that a faculty institute using this immersive approach best helps us to completely rethink and then decide how to redesign our courses using technology.

Of course, faculty I worked with faced a substantial workload in terms of time spent learning software and developing new course materials. They had lots of frustrating experiences, and many were skeptical about teaching in a truly decentered classroom. I believe it is important for us as faculty to try new things, to become frustrated and to experience new approaches ourselves in ways that resemble the students' point of view. We then see the amount of time certain projects will take, and the limitations that we need to impose, and we are in a much better position to critically evaluate the use of new technologies. We see the importance of defining the goals and the scope of the process, and not just focusing on outcomes or end products. We also will have better evidence for the administrators who are asking us to do this work now and in the future as digital media technologies become more widely incorporated into education.

Why is it better for students to struggle with the challenges of multimedia design projects? Using technology-enhanced discourses, students can use multimedia to engage in what The New London Group calls multiliteracies, or literate practices that include verbal, visual, spatial, audio, and gestural ways of making meaning (Cope and Kalantzis 26). That is, they experiment and disrupt traditional forms, they cross boundaries between texts and other forms, they build a bridge between written and visual literacy, and they redefine research and the process of creating knowledge in new ways. They learn substantially from one another and take pride in their work, which makes the struggles and the time involved well worth it according to their teachers. Students have the opportunity to enact their own voices and visions in their design projects and, often, they do so for an actual audience of peers or members of their community. Designing for audiences in multiple modes makes student work much more engaging and purposeful than most traditional writing assignments ever could.

Growing a New WAC Program

Most program directors would agree that beginning an immersive faculty development program is simple when one has seed resources from a grant, and a small, fairly interactive college community. When I moved to the larger state institution across downtown Atlanta to begin a new WAC program, I found a much wider use of technology in general, but, at the same time, fewer resources and an institutional culture that had not emphasized or supported reflective teaching practices until

fairly recently. Interestingly, the momentum on this campus recently has been to standardize teaching practices and faculty development around the use of WebCT. The State University System's adoption of WebCT has brought many courses at Georgia State University online and so many faculty members are integrating it into traditional courses and are receiving individualized training. Some of the faculty members developing WAC courses are also using WebCT, but they think of the online environment as a delivery medium rather than an approach to teaching and learning. And as of yet, the integration of Web-based course management technologies has not been strategically linked to the general education curriculum or to faculty development programs on campus.

My concept of "growing" refers to building the grassroots support through faculty seminars and retreats I use at Georgia State University. Because we began this program with no specific requirements of the faculty or the students, we literally started with the all-important budget for faculty development. We've been able to grow the program slowly and steadily by giving faculty summer grants for attending workshops and by beginning a writing consultants program. Following the practice of many WAC programs, I have incorporated the week-long or two-week summer seminar into the grant awards because it captures faculty attention and supports their sustained work on a specific institutional project that they will then implement within their own departments. The seminar participants all work on a specific syllabus or departmentally based project throughout the summer. On each day of the seminar, they draw on discussions about topics like online writing environments, electronic portfolios, or evaluation, and then they write the assignments, the criteria, the rubrics for assessment, and the rhetorical purposes for using writing in that course or that discipline. Faculty share these drafts with one another throughout the week, and then revise and share their work. Increasingly, these activities take place in part over electronic networks using e-mail, Webboards or on WebCT. This process engages faculty in some deep revision of their own work as course designers. The time commitment justifies a summer grant of $2,000 with the understanding that faculty will disseminate the results of their curricular work in their departments and more widely at local presentations and national conferences.

In discussions with both outside consultants and Georgia State faculty members, we emphasize important understandings about "best practices" for WAC and computer-enhanced courses.[9] With the support of these summer grants from the WAC Program, faculty members at my institution are developing assignments in courses that emphasize

using writing as a tool for learning and for communication (drawing on Young), while also focusing students on writing for specific audiences and purposes that are meaningful to their disciplines. Using the distinction between assignments that emphasize writing to learn and writing to communicate to various audiences, faculty members have developed assignments to integrate into courses and provide feedback, often using Web pages and online discussion forums to support these activities. Many faculty also use teaching assistants from their own departments as writing consultants to help read first drafts and provide feedback on the students' writing in progress. Though not without its problems and power issues, attaching these consultants to the courses themselves works well because the students see the work and the revision/feedback process as integral to the course; yet, students also see the consultant as part of the classroom learning community. This cross-disciplinary work can also complement the professional development of graduate students. Writing Consultants gain opportunities to work on innovative courses in addition to composition, to assist with course projects, and to teach using sophisticated media and technology. Graduate students in Rhetoric and Composition who collaborate with teaching assistants from other departments gain valuable experience in key areas that impact our field from those other disciplines.

So far on our campus, the tendency has been to integrate WebCT strategically into very large required lecture courses in an effort to enhance and manage student interactivity in the online environment. For example, students in introductory political science are now reading and responding to one another's work online in small groups. Pilot efforts to fuse writing across the curriculum initiatives with technology-enhanced teaching have emerged from specific departments. Thus, the English Department is developing electronic portfolios for majors and developing professional writing courses at both the undergraduate and graduate levels that use community-based technology projects (see Hocks, Grabill, and Lopez). Faculty members who decide or are "asked" by their chairs to develop such a course might get some support in the form of release time at the departmental level, and then they receive individualized training from a central support unit. Admittedly, the support for this kind of online teaching is excellent on this campus; yet, I observe that it does not intrinsically impact faculty perceptions about their teaching; rather, it is viewed as an information delivery service and a convenience to commuting students. I also notice that it is seen as more work, that it largely rests on the shoulders of younger faculty and those teaching large courses. In other words, many of the pitfalls that WAC initiatives have experienced historically are appearing while

incorporating technology into teaching on our campus. Our new Center for Teaching and Learning with Technology is now working to become an advocate for the faculty and correct some of these problems. As of yet, this center does not have affiliated faculty or adequate administrative funding to support the faculty as they engage in research and course development using technology.

How does one thus advocate for a center in this environment of standardized electronic teaching environments and course delivery? A small private school typically has a culture that emphasizes teaching, and the mere fact of proximity allows teachers to center around a teaching space, i.e., a classroom that allows pedagogical collaboration and experimentation to take place. I believe that—regardless of the size of the institution—campuses need a teaching and technology center with a clear agenda tied to the research and teaching missions of the institutions—whether it be the writing center at Spelman College, the Center for New Media at the Georgia Institute of Technology, or a center where on-going research on teaching takes place. All activities need not occur face-to-face, although most of us who teach writing are still tied to the classroom-based model of computer-enhanced courses rather than true distance-learning models. What is most important is that we maintain the focus on composition/authoring and response to promote active, hands-on learning in these new online learning environments. Critique and design of multimedia documents, expanding the definitions of writing, exploring interactivity, thinking about audiences other than the teacher or external to the university—these are projects based in current composition practices using new technologies. The design processes and pedagogies of a studio art class match up more closely to the kinds of learning experiences we want students to encounter when they engage in electronic writing. My own pedagogy of design is really tied to the physical classroom and being able to observe and intervene in the production of work, as well as the collaborations that take place there. But my experience at these two institutions has shown me that writing-intensive classes can benefit from being centered in a dedicated electronic classroom, a wired writing center, or a set of online practices that foster active learning and experimentation. As Walvoord argues, adapting to institutional change and actual needs while staying on the "side" of faculty is essential for determining the long-term success of any WAC program (71-72). From designing courses to articulating goals for writing and technology, faculty members need to remain the judges of how and when to integrate WAC and computer-supported instruction into their courses. In order to be effective in institutionalizing both WAC and computer-supported instruction, campuses must provide faculty the

time and support they need in order to think about how and when such activities can enhance learning within the context of their own classes and disciplines.

Final Suggestions

> I feel most fortunate: I have been permitted, under this rubric, to think and write about teaching and have been forced to learn about other subjects and worlds of discourse not my own. I think of myself now not so much as just a member of an English department, but as a citizen of the university. (Herrington and Moran 231)

Herrington and Moran capture with these words how WAC can change the way we perceive ourselves and our roles in the university largely in terms of the kind of community WAC creates. *In the Long Run* documents how faculty tend to remember and try to maintain the kind of community they experience with faculty development (Walvoord et al. 140). I like to think that WAC practices can maintain some of this idealism and also connect to something very tangible: the importance of technology in our work and lives. However, it is essential that those of us involved in electronic WAC programs use our opportunities to build communities, virtual and physical, as well as valuable and sustainable practices centered on teaching and learning. It is also essential that we tie electronic discourse practices to critical pedagogies that encourage students' diversity, their creation of knowledge, and their impact on real audiences for their work. I believe we need to make arguments at our institutions and also nationally for faculty development and support that is truly modeled on the best WAC practices, practices that actually transform our experiences as teachers. This work will indeed require raising funds, by first raising the awareness of campus administrators about the amount of support required to sustain efforts that truly transform teaching over the long term, and then raising the standards for how we support faculty in terms of their workload and their scholarship of teaching. These final suggestions are meant to provide arguments and starting points for beginning this work:

1. Link WAC to a center for teaching and technology that is faculty-centered and tied to the curriculum and research mission. This center can be a writing center, a research center, or a center for

teaching and learning, or it can be a well-designed Web site, as long as it is linked to the campus mission and has active, on-going participation by faculty.

2. Incorporate into WAC a pedagogy of multiliteracies that includes experimentation and play in courses that emphasize writing, visual literacy, technology, and oral communication.

3. Link student design work to community organizations at every opportunity.

4. Find resources to support faculty when they are experimenting with technology, critically discussing its uses, implementing it in their classes, and assessing student learning and uses of technology.

We know that a well-supported and active group of faculty can best help coordinate and leverage technology resources on campus and promote new approaches to teaching and research. If faculty are truly engaged in teaching multiliteracies, then that approach can be tied directly to a curriculum in writing, to learning outcomes for general education, or to research on teaching and learning. But until faculty jump in and try the technologies themselves and critically assess their value for teaching, these initiatives will remain abstract and distant concepts. By building reflective practices and a local community that keep us thinking critically about the more complex activities of technological literacy, we can best develop and then sustain those teaching practices that will carry WAC into the future.

Notes

[1] Several articles in this important collection outline ways to incorporate faculty development into electronic communication course curricula and build local community in ways that draw upon successful practices in writing across the curriculum and writing center practices (e.g., Essid and Hickey, Hocks and Bascelli, Palmquist et. al., and Taylor).

[2] See, for example, Hawisher, Hawisher and Selfe, and Cooper and Selfe for influential explanations of how networked computers inspired changes in writing pedagogy and definitions of critical literacy.

[3] See, for example, Sullivan and Dautermann's collection, *Electronic Literacies in the Workplace.* Hocks, Grabill and Lopez outline an argument for epistemological and institutional connections between WAC and technical and professional communication.

[4] See, for example, McLeod and Maimon, Thaiss, Walvoord, and Young on the central role of faculty development in transforming teaching.

[5] See Royster for the history of Spelman's writing program and her experiences theorizing writing *praxis* during faculty development workshops. Spelman has a rich tradition of interdisciplinary interaction among faculty, as evidenced in programs like the Comparative Women's Studies Program, and the African Diaspora and the World core courses.

[6] See Hocks and Bascelli for in-depth discussion of the Mellon Grant and the setup of this program.

[7] Ellen Cushman's work, based on Lambert and Mullen's Digital Storytelling Project (www.storycenter.org), has students use video-based multimedia for service learning projects. Cushman provides an excellent example of how students can use these tools to create new media essays that combine visual images and critical analytical messages. The success of these video essays is demonstrated by the powerful enactment of student voices as they use multiple modes to compose stories and academic narratives, and such projects can thus advance the kinds of critical pedagogies using students' own languages as advocated by LeCourt and by the New London Group's approach to multiliteracies (see Cope and Kalantzis).

[8] Nancy Kaplan and Randy Bass make powerful cases for how electronic archives impact how we know and understand English studies and literacies, as well as how others understand them.

[9] Colleagues that guided our program and that presented workshops during these seminars include Kristine Blair, Chris Boese, Anne Kimball Loux, Richard and Cynthia Selfe, Kathleen Yancey, and Art Young.

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