9 Teacher Training: A Blueprint for Action Using the World Wide Web

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In 1989 Cynthia Selfe published *Creating a Computer-Supported Writing Facility: A Blueprint for Action*, an informative overview of the theoretical and logistical requirements for establishing computer-supported writing programs, typically within departments of English. In this chapter I humbly attempt something similar, but I present instead a blueprint for developing electronically enhanced communication across the curriculum—and I describe only one part of such a plan. Perhaps *Electronic Communication Across the Curriculum* as a whole will provide the reader with a complete blueprint, while I map out only one room: using the World Wide Web to support program development and instructor training. And since this chapter does not afford the space to provide as much detail as Selfe's monograph, I want to emphasize in particular one key dimension of my blueprint: I recommend that CAC programs adopt a grassroots approach for creating a Web site, an approach that focuses on specific, local needs. In order to demonstrate what I mean by such an approach, first, I provide a theoretical analysis of some of the ways that the WWW can help overcome obstacles toward establishing successful CAC programs; next, I describe my own experiences using Web pages and HTML with a group of CAC faculty; and, finally, I recommend a "micro" model for other CAC programs to pursue.

CAC Faculty Training and Electronic Communication: How the Web Can Help

In the introduction to *Programs That Work* (1990), Toby Fulwiler and Art Young identify ten key questions that help define each of the fourteen WAC programs described in their now landmark collection (2-5). While Fulwiler and Young do not explicitly answer in their introduction their third question, "What faculty training models have proved most effective?," the collection as a whole does. One pattern that emerges among the fourteen case studies in *Programs That Work* is that retention of faculty interest and participation in WAC programs is poorer than one might hope for or expect. On the one hand, soft (non-ongoing)

funding for CAC programs contributes to poor retention, but soft (again, non-ongoing) faculty development strategies are also to blame. A related pattern among these fourteen case studies is that even though faculty-wide one- or two-day seminars—auditorium-filled "cattle calls"—serve to hook some faculty members on CAC programs, in order to keep them involved, these programs must offer constant and consistent additional support.

According to my reading of the Fulwiler and Young collection, the most clearly effective approach to offering additional support is not a series of Friday afternoon seminars or brown-bag lunches (which are somewhat useful, although faculty inevitably begin to skip these meetings in increasing numbers); rather, establishing close, genuinely reciprocal collaborative relationships among WAC faculty seems most likely to promote retention. As Flynn et al. observe in their chapter in *Programs That Work,* the trick to establishing such collaborations is twofold: (1) creating balanced, give-and-take relationships, and (2) finding a common ground. They write,

> Collaboration is, by definition, reciprocal, dialogic. Two or more individuals representing different, though compatible approaches, value systems, or epistemologies come together to create a new solution to a problem. . . . What is essential, though, is that both agents contribute and that one approach, system, or epistemology not be effaced by the other. . . . The collaborative model works well with engineering faculty because it encourages mutuality and respect. . . . The challenge, initially, is to identify a common ground. (168)

I propose that computer technology in general and computer-assisted instruction in particular can provide just such a common ground.

Why use the WWW to promote CAC? Let's be frank, issues regarding instructional technology—along with budget crises and continuing concerns about issues of race, class, and gender—are extremely hot topics in higher education today. As such, why not use technology as an additional focal point toward the development of institution-wide writing programs? The specific combination of writing specialists, faculty members from across the disciplines, and computer technologies seems particularly promising for CAC training programs, not only because it can solve the problem of identifying a common ground but also because it addresses an additional problem related to CAC program administration and development: communication among CAC administrators and faculty who are often separated by severe disciplinary, institutional, and geographic boundaries. In 1990 Fulwiler and Young could not have known that a few years later the Internet would seem to provide an ideal solution to the problem they identified in the following observation: "To date few mechanisms have been available for disseminating information about CAC programs in a systemic or comprehensive manner" (2). Yet even though the Internet is now available, much work will have to be done for it to emerge as an important CAC

resource. I propose that the unique media of the Internet, especially asynchronous technologies such as e-mail and the World Wide Web, can support genuinely collaborative efforts among colleagues who seek to integrate writing in classes from across the disciplines. And since we already have examples of how e-mail can help in these efforts (e.g., the WAC-L discussion list[1]), I want to focus in particular on the World Wide Web.

Beyond providing an effective focal point for CAC faculty training, the World Wide Web can also address a number of logistical problems. Asynchronous communication technologies, such as the Web and e-mail, allow busy, often overworked professionals to exchange information and ideas as their schedules permit instead of enduring the nightmare of trying to gather everyone together for a face-to-face meeting. Using the World Wide Web as a hypertextual, online archive of CAC-related materials (e.g., workshop outlines, grant proposals, both formal and informal teacher-researcher studies, syllabi from across the curriculum, sample course assignments, etc.) allows program leaders and participants to create a collaborative collection of texts that documents their work and makes it accessible to an international audience to be imitated, expanded upon, or even contrasted. WWW-based resources permit CAC faculty with similar disciplinary interests to collaborate across institutional and geographic boundaries; for example, an environmental microbiologist may not be able to find a local colleague who is interested in CAC, but he or she may be able to establish connections with a similar teacher/scientist hundreds of miles away. In fact, the bonding of a local anatomy instructor with colleagues miles away is what actually encouraged me to explore the potential of the WWW to support CAC. I'll explain.

The Accidental Web Tourist

I must admit that I discovered by accident the power of the World Wide Web to facilitate CAC faculty development. In fall of 1995 I led a graduate seminar titled "Computers and Literacy." Even though the course was listed within the department of English, many of the students in the seminar quickly let me know that they weren't as interested in literacy as they were in instructional technologies. Most of the students in the seminar were community college instructors with graduate degrees and years of teaching experience looking to satisfy continuing education requirements. These instructors were from a variety of institutions and from all over the curriculum: art history, microbiology, health sciences, business, communications, etc. Thus, shaping the seminar to focus on the intersection of CAC and technology seemed not only a logical decision but also a convenient solution to the problem of making the experience relevant for all of the participants—a solution that I believe can work in other CAC training contexts. As you can see, I came to realize through serendipity that computer-assisted instruction could serve as a way to reach out to faculty who may not

initially be very interested in CAC programs. A word of caution, though: I'm not suggesting that instructional technology should be used as a bait-and-switch tactic to lure faculty members into a seminar or program only to try to sell them CAC—that would violate what I have said about the importance of mutual respect and give-and-take relationships. I am suggesting that instructional technology, particularly the Internet, can be used to bring faculty together to consider CAC, not just literally in terms of communication but also in terms of establishing mutual interests.

Most of the instructors in my seminar had never seen the World Wide Web before, and, like me when I first browsed the Web, they were profoundly struck by its power and potential; they clearly wanted to learn more. At first I was having a difficult time selling the faculty from outside of the humanities on the idea that their students would benefit from courses that were more writing intensive. That is, I was having difficulty until I led these instructors on a guided tour of Web sites created by CAC faculty in other places and in various disciplines. My arguments in favor of writing intensive courses across the curriculum gained credibility because I was able to present objective evidence of the viability of CAC programs in other places. But my success was not without limitations: for example, some seminar members felt cheated because, unlike others, they were unable to locate Web sites that spoke specifically to their academic interests.

The highlight of the seminar, however, was the Web sites created by faculty from outside composition. Interestingly enough, the writing specialists in the seminar all chose to develop conventional academic research papers for a final project. The scientists as well as instructors from art history and literature authored Web sites. An anatomy instructor turned an ordinary, photocopied handout into an lively hypertext with links to some of the most impressive online graphics I have ever seen on the Web: an almost too-lifelike, three-dimensional, cross-sectional, and, in fact, computer-generated illustration of an anatomical man. This instructor used Web technology to solve the problem of duplicating copyrighted work by simply creating links to material made available by evidently talented and apparently well-funded researchers in her field. This instructor was, thus, beginning to create, in effect, her own online textbook. An art historian in the seminar uploaded scanned photographs of her travels that followed the path of an ancient pilgrimage across the Spanish countryside to a sacred chapel. She arranged maps and photographs of her trip sequentially and combined these images with a narrative that wove together her personal experiences with lessons concerning art history. Students can therefore travel along, in a sense, with their teacher as she surveys Spanish art through photographs and text, pausing along the way to interact with the hypertext and perhaps to respond to sequential writing assignments. A literature instructor designed an online lesson on Ambrose Bierce by linking together the full text of "An Occur-

rence at Owl Creek Bridge," biographical material, excerpts from "The Devil's Dictionary," and writing assignments (by the way, a great wealth of literary material is now available online for free through philanthropies such as Project Gutenberg[2]).

On the one hand, these projects and others like them in the seminar were a rousing success, one of those moments when a group of educators is clearly excited about the advances they made and the work they produced. But, of course, such gains do not come without a price. Perhaps others who take up the blueprint I present in this chapter will gain from the problems we experienced. These problems fall into two categories: negotiating a variety of learning curves and overcoming institutional constraints.

Based upon my experience leading the seminar, I project that those who plan to integrate the use of the WWW into a CAC program will encounter problems regarding learning curves on three fronts. First, a leader within the CAC program must learn how to build Web pages. This requires learning the codes through which Web documents are formatted: currently, this means learning HTML (hypertext markup language).[3] Fortunately, HTML is not very complicated; it is not much more difficult than learning to use the formatting codes in old versions of some word processors such as WordStar. And HTML editors, software that shortcuts much of the coding process, are becoming increasingly more reliable, available, and user-friendly. A second obstacle can be much more troublesome for obvious reasons: learning not just how to use HTML but learning how to teach others how to use it. One possible solution to the problem of getting leaders up to speed on HTML is to encourage some of the more technologically oriented members of a CAC program (rather than those who are primarily writing specialists) to lead a training session. Another possible solution is to seek out junior faculty or graduate students with Web page experience to lead or help facilitate these sessions. Third, those who will be learning HTML are likely to have significantly different technological backgrounds; some will either already know HTML or will pick it up almost instantly, but others will struggle with every step. Probably the best solution to the problem of different levels of experience among the audience members is to have those who are ahead of the curve work one-on-one with those who are struggling. Based upon my experience teaching HTML to literally dozens of faculty members in various workshops, I can say with confidence that, with well-structured training, most novices can independently create rudimentary pages within three hours or less.

Institutional logistics present additional problems. One of the failures of my first experiences with CAC and technology is that the Web sites which the instructors created in the seminar have already been erased. I did, of course, recommend that this work be saved onto floppy disks so that it might be restored later, but, because of institutional constraints, we were granted only temporary

access to a file server on which to build these Web pages. As with all program-
matic applications of instructional technology, using the WWW to develop CAC
requires firm and preferably documented commitments of support from institu-
tional authorities. In order to be effective, such programs require well-main-
tained and relatively permanent electronic archives. A CAC program supported
by the WWW should also secure access to sufficient hardware and software:
computers for formatting and uploading, HTML editing software to help flat-
ten the learning curve, and reliable access to a scanner for digitizing images.
And, finally, what sort of pages should a CAC program encourage its instruc-
tors to develop? What model should a CAC program ask its members to follow?
Answers to these questions will depend significantly on the aims and needs of
each individual program.

A Local Model Going Global

In closing, I would like to consider two markedly different approaches to build-
ing a network of CAC-related Web sites. On the one hand, a top-down, macro
approach to such a network might look to an established entity such as the
Alliance for Computers and Writing (ACW), the Council of Writing Program
Administrators, or even the active WAC-L discussion list to provide a central
clearinghouse for models of CAC pages, links, sites, materials, etc. In fact, the
ACW Web site already includes a number of CAC-related links[4], and Larry
Beason has created a WAC homepage with links to various programs.[5] On the
other hand, I would argue in favor of a more micro, grassroots approach. As
Programs That Work demonstrates, each program and institution has a unique
profile, and I contend that CAC programs must build on local strengths and be
very responsive to local contexts if they are to succeed. For example, the mem-
bers of my seminar clearly wanted to develop materials they could use in their
classrooms as well as present to others as evidence of innovative work; thus,
they created CAC-related Web pages for their students to use. In contrast, a
CAC program administrator might want to create a Web site that archives histo-
ries, descriptions, policies, and evaluations of the program. This central
homepage could, in turn, connect materials that faculty produced during CAC
training sessions. Asking faculty to build online resources that are woven to-
gether through a local CAC program Web site can serve as an ideal conclusion
to a development seminar, as it did in mine, for the act of individually (re)defining
a CAC course can synthesize the experiences of the seminar, drive the crucial
move from discussion about CAC to a tangible commitment, and record the
progress and breakthroughs made by faculty members. Such Web sites also
increase the likelihood that CAC faculty who feel alienated because of disci-
plinary distance from program leaders or other program participants will be
able to locate a model that speaks to their idiosyncratic concerns. I recommend

in particular that CAC faculty be encouraged to author Webbed versions of individual course principles, syllabi, and other course-specific materials; in surveying the Web for both the seminar and this chapter, I found a surprising lack of such documents.

While there are a number of exemplary CAC pages currently available on the WWW (Northern Illinois University's, for example[6]), I hesitate to foreground what others have already accomplished, even as a template, because, as I suggested earlier, I believe the key to my blueprint is that each individual program should in fact custom build. As before, if close, reciprocal, collaborative relationships among faculty in the program are a priority, it will probably be more effective for a local group to work together to define their program and build a Web site that specifically addresses their own needs. According to the micro as opposed to macro paradigm, the purpose of such CAC Web sites would be first to serve the needs of a local program and second, and almost incidentally, to establish connections to other programs.

In short, I recommend that CAC faculty use the WWW to define themselves as a local community and, instead of relying fundamentally on a national or central organization, allow the individually guided, grassroots tendencies of the Internet to steadily and organically link together autonomous CAC Web sites.[7] My blueprint for action, therefore, is not a detailed plan for a local site or for a national clearinghouse of CAC materials; rather, it outlines an intentionally theoretical and speculative architecture for a local program. As I discovered by working with faculty from outside the humanities in particular, CAC proponents and instructors can take advantage of the excitement and power associated with the WWW to join together and move forward. Again, this is not a gimmick: the vast majority of the information on the WWW is primarily textual, even though one of the tremendous advantages of the Web is the fact that it also supports graphics, audio, photography, and movies. That is, even though the Web is certain to become more audiovisually oriented, it is likely to remain a largely textual, interdisciplinary, literate space—not a mere reflection of electronic communication across the curriculum, but an embodiment of it.

Notes

In the Computers and Literacy seminar we used fifteen multimedia computers; one was a Power Macintosh and the rest were either 486s or Pentiums. The file server was a Sun Sparcstation. Initially, we used the Windows Notepad accessory to compose in HTML, but eventually we moved to HTML Editor. Netscape was our Web browser.

1. Those with e-mail accounts can subscribe to WAC-L by sending an e-mail message containing "subscribe WAC-L <yourfirstname> <yourlastname>" (without quotes) addressed to: listserv@postoffice.cso.uiuc.edu. Do not include anything else in this message, such as a subject line or a signature file.

2. http://www.promo.net/pg/

3. Currently, HTML is the most widely used language for creating and viewing Web documents; however, this preference could change suddenly. For example, VRML (virtual reality markup language) and SGML (standard generalized markup language) have also emerged and may some day replace HTML as the standard. Regardless, learning the fundamentals of a language such as HTML should provide a foundation for whatever languages may be preferred in the future. In order to be able to create basic Web sites, it's not likely that coding for laypersons will become more difficult in the future.

4. http://english.ttu.edu/acw/

5. http://ewu66649.ewu.edu/WAC.html. See also note 7.

6. http://www.niu.edu/acad/english/wac/wac.html.

7. Larry Beason's current WAC Web site is an example of the organic tendencies of the Internet to link together previously separate local interests. See note 5 for URL.

Works Cited

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