REVIEW/COMPTE RENDU

Computers and Technical Communication: Pedagogical and Programmatic Perspectives

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> Computers and Technical Communication: Pedigogical and Programmatic Perspectives, Stewart A. Selber, Greenwich, CT: Ablex, 1997, 414 pages.

FOR THOSE INVOLVED IN THE TEACHING OR STUDY of things called "technical writing," the term can sometimes seem a liability, a designation that makes people think of business students getting an unasked-for lesson on bad-news letters; or of the dour circumstances of literature PhDs set down, not entirely welcome, amongst engineers or foresters. A few years ago, members of CATTW/ACPRTS thought about changing the English part of the association's name. They looked for but did not find a more inviting, or promising, name for themselves.

But now the term's stock has risen. *Technical* has bankable affinities with "technology" and collocates "new/emerging/converging," and once "writing" is replaced by "communication," we are on the information highroad. Contributors to Stuart Selber's collection of essays on computers and tech writing report how the new technologies have been the means by which an at-risk department moved to the institutional centre (Bill Karis); how status, endowments, and affiliations flow to technical communication programs through high-tech avenues. As Pamela Ecker and Katherine Staples claim, tech writing is learning to "thrive" on "newness and change": "Technical communication programs—more than programs in many other departments—know how to grow" (376). Computing technologies fuel the growth.

As you might guess, this growth is not without problems. Some problems are material and immediate—and familiar. Nancy Allen and Gregory Wickliff tell about technical and social difficulties in linking three geographically separated classes electronically. Despite students' frustrations, however, Allen and Wickliff, like an earlier generation of advocates of the use of computers in composing, insist on the value of the innovations. Similarly, Rebecca Burnett and David Clark are pleased by the illuminating complications groupware adds to collaborative activities. And, like the documents of that earlier era of advocacy, essays in Selber's collection also identify the problem of cyber-reluctant colleagues. Handily presupposing the benefits of technology, Richard Selfe and Cynthia Selfe pit the forces of "conservatism" against those of change—the attitudes of traditionallyminded faculty against those of "innovative" ones (at the same time recognising that reluctance can sometimes be justified). Stephen Bernhardt and Carolyn Vickery propose measures for encouraging hesitant faculty to taste these new menu items; Brad Mehlenbacher goes a little further along these lines by examining typical behaviours of technology aficionados and finding some qualities that can be off-putting to outsiders.

But both Mehlenbacher's and Bernhardt and Vickery's chapters are also concerned with the proper support of the aficionados. Like many other chapters in this volume, their discussions eventually land on the problem of the institutional location and value assigned to knowledge of technologies. Should technical know-how be left to staff or should tenure-track faculty take the reins? With some important qualifications, most authors in this collection recommend that faculty take responsibility. Should tenure decisions account for the time and ingenuity spent on technical implementations? Not surprisingly, these writers say yes, and, rather like the compositionists at the dawn of the New Composition, urge English departments to recognise the products of non-traditional scholarship ("applied scholarly work," as Pamela Ecker and Katherine Staples call it). Henrietta Shirk even recommends that technical communication educators settle the matter by separating once and for all not only from English departments but also from the rhetoric and composition discipline. I cannot see that the matter is so easily concluded. Consider an instructive example of the changing status of knowledge offered by Mark Werner and David Kaufer as they describe the program at Carnegie-Mellon. Not only do they remind us that the program was a wartime product of partnership between the university and Westinghouse and designed to recruit women as (under)writers of military technology, they also ponder the fact that in 1983 Pagemaker was the focus of a "capstone" seminar; now it is an entrylevel skill. While the accelerating pace of change may make technical knowhow valuable in one sense, in another sense it makes the scholarly status of such knowledge vulnerable. Some might even suggest that aficionados are not so much scholars as they are particularly adept consumers of technical commodities.

A more durable credential may come from a train of thought which more than one writer refers to as "critical technology." Involved in (or enthralled by) the technology as these writers are, few if any of them fail to note that *technology* is not *neutral*—not simply a tool but, rather, a socially configuring and politically contingent phenomenon. Selber's essay goes after attitudes of technological determinism; James Porter offers an interesting and useful review of legal and ethical issues surrounding computer-mediated communication; proceeding from the view that we are in a "liminal" age, Billie Wahlstrom finds correspondences between the rabbinical hermeneutics of the Talmud and the post-modern design of hypertext; and Johndan Johnson-Eilola in particular conducts a subtle and substantiated discussion of the social implications of communication technologies.

Yet the "critical" part of "critical technology" seems still to be a rather fragile undertaking. While writers throughout the collection call for a sense of social responsibility as part of "computer literacy," and in the more theoretical articles show themselves very worried about social outcomes, their concerns seem to be more isolated premonitions than the result of sustained inquiry. Porter and Wahlstrom, for example, both make a good start at anchoring critical perspectives-Porter by reviewing legal issues, Wahlstrom by historicizing the hermeneutics of hypertext-these analyses somehow throw their anchor at the first sign of rough weather. Porter, like many others in this book, invokes "ethics," reminding us of the surveillance opportunities that email offers managers, but suggesting no organised method for understanding these situations. For Wahlstrom, a "literacy of agency" and an "ethics of community" are steps towards "having students resist systems of domination" (137), but there follows no schedule of inquiry into these systems. Instead Wahlstrom offers a vision of an "avatar classroom." In "the classroom of the future." a teacher:

would activate her computer by a verbal command and meet her class in cyberspace. Her students would first see a window of clouds in their computer monitors...Students would appear as avatars...Some

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would look like people, although not necessarily like the people they were in physical life. Others would have the shape of an animal or object...Each avatar will have equal access to the technologies in the classroom and will be responsible for taking the other learners' words seriously. Polyvocalism will be expected and there will be tolerance for dissent (142-43).

Ann Duin and Ray Archee, after a theoretical and practical critique of distance-education web sites, envisage in epilogue a site of the future that realises the terms of their title—"information, engagement, and community":

The students come from all over the world...Apart from the immediate access to any reference in the world, the system can assist students with their learning, intelligently adjusting itself to students' preferred learning styles...Information delivery has evolved to a montage of student-generated images sent simultaneously to all currently logged onto the evolving course. Learners mentor other learners, discussing relevant Web Sites and living within these (168).

Those writers who don't go so far as to construct utopian moments nevertheless seed their discussions with eulogisms. Mehlenbacher, for example, refers to Web resources as "[inviting] exploration and interaction" (223), the Internet as "community-building" (22), and he guarantees the instincts of advocates ("[pioneers] in this frontier," according to Duin and Archee) to "give our students learning environments that are energized, playful, and unpredictableùthe stuff of learning" (234).

Most if not all of these writers see communications technology as something which technical communication teachers and students both *use* and *study*: they urge not only the implementation of new technical systems but also the investigation of their consequences. Accordingly the chapters teem with modalities of obligation: we *must* venture into and command these new domains; we *must* develop critical perspectives. Although most contributors manage to turn adroitly from one obligation to the other, the critical obligation seems to be, on the whole, a weaker impulse—no match for the allure of technology or the romance of the frontier of career opportunities. The theoretical chapters in the first part of this book bring in some powerful guests—Paulo Freire, Henry Giroux, Donna Haraway, Stuart Hall, for example, are cited—to boost the critical agenda, but by the end of the story, Billie Wahlstrom's "literacy of agency" has dwindled to, in Henrietta Shirk's account of expanding roles for technical communicators, a vague "ethics" that notices issues of change and control and an idea of "user [advocacy]" that centres on "human factors, analysis, ergonomics, software psychology, and cognitive science" (361).

Finally, despite repeated expressions of concern—some routine and localised, others more sophisticated and farsighted—few of these essays suggest means of designing the research questions and methods that will direct students' investigation of "social effects (Johnson-Eilola)." The prospects for "critical technology" are large but the examples few: Lee Brasseur describes "aesthetic" limitations of automated design; James Kalmbach, reflecting on the distribution of technical know-how between students and teachers, talks about the use of the spacebar; Allen and Wickliff wonder why the desktop (which "subtly [reinforces] the ideology and values of business culture") can't be "a kitchen workplace, a playroom, or a city" (210). I suspect that ideas about the spacebar and the kitchen will not be weapons powerful enough to "resist domination" by new (and current) technologies and their beneficiaries.

Like language itself, communication technologies are both products of human agency and exploiters of it: we use the language and it uses us; we devise tools which use us for their own propagation. This collection of essays doesn't do much to resolve the complexities of the situation but it does remind us of them—and it suggests, at least indirectly, the project ahead for teachers of technical writing: defining research objectives for "critical technology," carrying out inquiry, collating results, and, in the meantime, keeping at arm's length the passions of cyberphilia. In encouraging students to undertake this project, I will direct them, especially, to the essays by Selber, Porter, Johnson-Eilola, and Wahlstrom in this book.