



Afterword

Sustainable Writing Programs: A Continuing Agenda

Charles Moran

This is a book about the relationship of computers-and-writing programs to “place”: the institutions that house these programs, the stakeholders who together constitute these institutions, and the institutional and human motives that drive these stakeholders. In 1995, when Gail Hawisher, Cynthia Selfe, Paul LeBlanc, and I finished the manuscript of *Computers and the Teaching of Writing in American Higher Education, 1979–1994: A History*, we saw that another, parallel book needed to be written, a book organized around place. And here, after 12 years, it is. We chose chronology as the armature for our book. Chronology gave us the benefits of a narrative structure, and allowed us to tell a story of the general development and growth of our field from our collaborative, combined perspective. To expand and diversify this perspective—to make the story more collective, less idiosyncratic and individual—we brought in other narrators (Lillian Bridwell-Bowles, High Burns, Locke Carter, Eric Crump, Michael Day, Lisa Gerrard, Johndan Johnson-Eilola, Michael Joyce, Rebecca Rickly, Helen Schwartz, Patricia Sullivan, Myron Tuman, Pamela Takayoshi) So we had multiple narratives—better for truth-telling than a single narrative—but, still, fast-paced stories driven by the clock.

I’m proud of what we did. Yet we were forced, by our choice of a chronological narrative, to stay very much on the surface of things. Yes, program directors at all sites had to scramble for funds—but who, at a given institution, did the scrambling? With what tactics? Competing against what institutional and personal agendas? And with what failures, and what successes? This present book, *Technological Ecologies and Sustainability*, with each chapter firmly located in a place (i.e., a particular institution of post-secondary education), looks at program development with the depth that we could not achieve in our chronological history. At the center of each chapter are institutional dynamics, personalities, motives, stakeholder-profiles—the gritty elements of a program’s struggle for the resources it needs to survive and, if it is smart and lucky, grow.

The chapters in this book give us situated models of programs that have been able to sustain themselves over time. Implicitly or explicitly, they give us advice about how one needs to go about building a sustainable computers-and-writing program.

I wish that we had had these models, and this advice, when colleagues and I at the University of Massachusetts, Amherst, launched our first computer-equipped classrooms in 1984—first with IBM PC’s on loan from IBM; then with Digital’s gift of 55 obsolescent DecMates, then Novell-networked Leading Edge PC clones—each workstation equipped with its own Epson dot-matrix printer. Who among us now remembers the incredible buzzing of 24 dot-matrix printers running simultaneously at the end of class? Loud, clumsy printers; hand-me-down computers; and reliance on gifts of obsolete technologies from companies was intolerable and certainly unsustainable. Marcia Curtis and I put in hours—if not days—learning to make our local area network one that would support our primary purpose: sharing texts. We were forced to create hundreds of batch files that let us work around the document security that Novell assumed we’d need. Very exciting, but not, long-term, a sustainable level of effort and commitment. Yet our computer classrooms, and our integration of computers into our writing curriculum, have continued into the present. Somehow we survived, and even prospered a bit. The chapters in this book make me think about the choices we made, some good, some less so. They also make me think about the choices that we will be making in the future as we attempt to sustain our program and, as possible, foster its growth.



* * * *

If we had known then what we know now, however, we might not have begun at all. The book reminds me of our struggles to find space and funding for our computer-equipped writing classrooms in a university system already strapped for space and money. We found grants that paid for the computers, but who would pay to air-condition the rooms themselves? Who would pay to replace a machine when it went down? Who would perform or pay for maintenance? Depreciation? Paper for the printers? Lab monitors or consultants for the computer classrooms during open hours at night? These were all expenses new to our English Department, a department that had functioned well for some 50 years without an equipment line in its budget. Given the struggles depicted in some of the chapters in this book, apparently this problem continues to plague writing programs, particularly those housed in English departments.

Yet the chapters in the book remind me as well of the excitement and enthusiasm generated by our new facilities. As program director feeling responsible for the facility, on a dark winter night in 1986 I drove to campus to see what these classrooms looked like after hours. In the first room I visited some student writers were in clusters, looking at one another's screens; others were working solo. The student lab monitor's boom-box was playing softly. Someone had ordered in pizza. The monitor, a poet with an MFA, was conferring with a student about her poem. This was another world—a writing place, in violation of the no-food-and-drink rules of our computer center (to say nothing about the boom-box)—a room filled with writers plying their craft, in a positive, home-like atmosphere. For the first time on our campus, we had a real writing place, a set of rooms dedicated to the activity of writing.

* * * *

Just as this book fills a gap left by our 1996 history of the field, it leaves its own gaps to be filled by the next generation of scholars. In the section that follows, I describe three areas that, in my view, need to be explored if our writing programs, our institutions, and spaceship earth itself are to survive. In doing this I am explicitly encouraging young scholars in our field to begin thinking along one or more of these three lines as they shape their research and prepare conference presentations and submit publications into the near-term future. I see each of these three areas as equally important. Given my choice to write this Foreword in linear form, I have to begin with one of these areas. But the sequence here is not of increasing or decreasing importance; it is how the areas came to be written.

To begin: If we are to sustain our programs, we need to focus on the assessment of the learning that takes place, in, around, and because of our computer-equipped facilities. Our institutions and our students have all spent a lot of money on the computing facilities available on our campuses, and in particular on the computer components of our writing programs. Would this money, if spent on live instructors and face-to-face instruction, produce more learning? Less learning? Different learning? We do not know. There is very little talk about assessment in the chapters of this book, and for good reason: There has been very little done in this area. If we want to have sustainable computers-and-writing programs, we have to be able to say, with some credibility, that the dollars we spend—and those that our students spend through equipment purchase, tuition, and fees—are dollars well spent, and that there is an outcome that is worth the investment. In the 1980s and 1990s we believed that computers, especially word-processor machines, improved student writing, but despite our best efforts, we could never credibly support that argument. Now, in what may be the waning days of our national assessment frenzy, we need to think seriously about assessing the learning that we can legitimately attribute to our expensive machines. If our argument is that today's students, writing and composing online, are learning differently—not to write better five-paragraph themes, but to compose flexibly in multiple media—then we need to try to measure this new



learning and to establish its value, in terms of personal growth, earning power, ability to collaborate, or some other outcome. This book begins to describe the new learning and to devise instruments that will assess it. It is hard to imagine a sustainable program of teaching and learning that does not seriously attempt to assess student learning.

A second need is research and scholarship that helps us determine “good” and “bad” uses of technology, given particular goals for our students’ learning. I’m thinking of the push by ETS and others to sell our institutions the services of machines that will ‘read’ and score our students’ writing. These programs, and the marketing muscle that lies behind them, are well-described in the chapters of Patricia Freitag Ericsson and Richard Haswell’s (2006) *Machine Scoring of Student Essays*. How are writing program directors coping with the threat of these programs, which, on the surface, seem to offer cheap and objective ways of assessing and responding to student writing? These machine-scoring programs give entirely bewildering and often dead-wrong advice and feedback to writers, advice that is not only confusing and inaccurate in its own right but that generates conflict with any feedback given by teachers. As things now stand, a writing teacher, K–college, can be forced to use an administratively mandated service that will give automated feedback to student writers. How are writing programs now dealing with these seductively packaged and powerfully marketed systems? If our writing programs are to be sustainable, and if our uses of technology within those programs are to be sustainable, we have to define and sort out the beneficial and harmful uses of technology, and argue hard for the uses that we believe serve our goals for teaching and student learning. As Anne Herrington and I have argued elsewhere (2001), and as the CCC Position Statement on Teaching, Learning, and Assessing Writing in Digital Environments (2004) asserts, writing to a machine is not the same act as writing to an audience of human beings. Writing, even journal writing, is ineluctably social. People write to other people for human and social purposes. The machine scoring of writing turns the act of writing into a game, one in which you learn to “trick” the machine to improve your score. How can we, as experts in our field, resist the incursion of these harmful uses of technology into our writing programs? We need careful analyses of the use outcomes of these machine-scoring programs and, assuming that we do not approve of these outcomes, strategies for keeping them at bay in our home institutions.

A third need is suggested by the word *sustainable* in the title of this book. In this present anthology, the chapter authors describe what teachers, students, administrators, scholars, editors, programs, departments, writing centers, and research centers have done and might do to sustain themselves, but with the notable exception of Shawn and Kristi Apostel’s chapter, there is little discussion of what we do as sustainable in world terms. According to Tim Pawlenty, chair of the National Governors Association, “the average desktop PC currently wastes half of the power it receives.” Pawlenty and his association argue that state offices could and should reduce their energy expenditures on information technologies by half (U.S. Department of Energy, 2007). By extension, writing programs should do the same. When in 1985 we opened our first computer-equipped writing classrooms at my university, we had to have air conditioning installed in the rooms to cope with the heat generated by the computers. The air conditioners are still there, and the computers, too—newer, much more powerful, consuming more power, generating more heat that needs to be cooled with still more power. Not, in world terms, a sustainable practice.

A globally sustainable writing program would begin by installing energy-efficient computers and perhaps moving to laptop classrooms, because laptops use less power than desktops. It would lobby its home institution to follow Stanford University’s lead and establish a Sustainable IT Working Group to do an energy use analysis of all IT services and make recommendations for changes in equipment, software, and user-behavior that would reduce energy consumption—and, at least in Stanford’s situation—potentially save \$400,000 a year



(Dedrick, 2008). But a sustainable writing program would need to go much further than this—and here's where things get interesting. We tend to assume—or at least I and my friends, acquaintances, and colleagues do—that the online world is somehow “free.” But it is not. Online banking, for example, uses and transports much less paper than check-based banking did. So one could argue that there have been energy savings in the use and transport of paper. Yet banks need to operate or lease the tremendous server capacity required by their online systems. Servers, just like our desktops, use, in the aggregate, huge amounts of energy, some of which generates waste heat, which then has to be removed by some form of cooling, usually air conditioners powered by electricity. So every online transaction costs our environment something. And so does every online search, whether for the best deal on a pair of socks or information that I need if I am to write this Foreword. As I have worked toward the completion of this essay I have done dozens of Google searches. An amazing capability, really; I've found sources that I'd never been able to find in our paper library, however beautifully indexed. As I was searching, I found a *Business Week* article by Manfred Dworschak (2008), titled “Server Farms as Polluting as Air Traffic.” In this article, the author estimates that a single Google search consumes enough electricity to light an 11-watt fluorescent bulb for an hour. By that calculation, in searching the Internet for the purposes of this Foreword, I have used at least 200 watt-hours, which, the power meter on my bicycle tells me, would take me over an hour to generate, pushing as hard as I can.

To make our online searches possible, Google operates and leases vast server farms located throughout the world. The server farms generate waste heat that then needs to be “cooled,” or, rather, removed from the computers and added to our already warming world. Google is now building a new server farm—with four-story cooling towers—in Oregon close to the Bonneville Dam, so that it can get all the power it needs and (smart move) claim that its tremendous energy drain comes substantially from renewable resources (i.e., Bonneville's water power). Some of the waste heat will be vented into the atmosphere via the cooling towers and the remainder returned to the Columbia River, warming the lower reaches of the river and further altering its ecology. Dworschak writes that these

numbers reveal that the sheer, disembodied lightness of the data world is nothing but a pretty illusion. In fact, it is a world built on real world data processing factories that, when it comes to power consumption, are reminiscent of the early days of industrialization. Computing with electrons is just as physical as the melting of steel or rolling of sheet metal. In both cases, no one cared much about resource consumption during the early phases. (p. 2)

That's brutal. How shall writing programs respond? Are there ways in which we can help our students understand the costs, as well as the benefits, of their online research? Paper libraries have an environmental cost as well, a cost that we did not consider when we assigned documented essays and sent our first-year students off on their library tours. But online searches take so much less effort and personal investment: no walk to the building, perhaps late at night; no library card; no uncomfortable chairs and poor lighting. And one can search so easily and quickly for anything—friends and clothing as well as information needed for a project. There seems to be no cost, no limit, but there is. There's an agenda for a third line of research: the costs and benefits of computer technologies insofar as they apply to our work as teachers of digital writing, and a writing program's appropriate response.

* * * *

In this Foreword, inspired by the anthology you are about to read, I have raised three questions that present challenges for all of us in the field of computers and writing:



1. How shall our computers-and-writing programs assess student learning?
2. How shall we defend ourselves against what we feel are improper uses of technology in our work?
3. How shall we cope, personally and institutionally, with the environmental costs of this technology which we love so well?

These questions, and our approaches to answers to these questions, must be part of the research agenda for the next generation of teachers and scholars in our field.



REFERENCES

- CCCC position statement on teaching, learning, and assessing writing in digital environments (2004). Retrieved October 10, 2008, from <http://www.ncte.org/cccc/resources/123773.htm>
- Dedrick, Allison, (2008, February 8). Big fix supplement shoots for sustainability. *Stanford Daily News*. Retrieved October 10, 2008, from <http://daily.stanford.edu/article/2008/2/8/bigfixSupplementShootsForSustainability>
- Dworschak, Manfred. (2008, March 31). Server farms as polluting as air traffic. *Business Week*. Retrieved October 11, 2008, from http://www.businessweek.com/globalbiz/content/mar2008/gb20080331_274500.htm
- Ericsson, Patricia Freitag, & Haswell, Richard. (Eds.). (2006). *Machine scoring of student essays*. Logan: Utah State University Press.
- Hawisher, Gail E.; LeBlanc, Paul; Moran, Charles; & Selfe, Cynthia L. (1996). *Computers and the Teaching of Writing in American Higher Education, 1979–1994: A History*. Norwood, NJ: Ablex.
- Herrington, Anne, & Moran, Charles. (2001). What happens when machines read our students' writing?" *College English*, 63 (4), 480–499.
- U. S. Department of Energy. (2007). Governors Association to encourage use of energy-efficient computers. Retrieved October 11, 2008, from http://apps1.eere.energy.gov/state_energy_program/project_brief_detail.cfm/pb_id=1219