



# Washington Center

## NEWS

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## Technology on a Human Scale: Reflections on the 1997 Annual Conference

When we began planning for a conference on technology more than a year ago, it wasn't apparent what the end result would be. Clearly, the Washington Center's strengths and its values have always been focused on human interaction — on ways of coming to know together. The question we wrestled with early on was how to frame a conference on technology so that it kept issues about community, collaboration and learning in the foreground, exploring them within the context of rapidly changing, ever-pervasive technology. Thanks to many of you, we succeeded.

All of us in higher education are having to cope with tremendous change. Technology is certainly driving much of that change, not just in itself, but also in the kinds of conversations it foments about the nature of teaching and learning, along with the challenges it poses to "traditional" classroom-based learning. We find ourselves having to adapt to situations we never sought. In "The Work of Leadership," Ronald Heifetz and Donald Laurie write that "solutions to adaptive challenges reside not in the executive suite but in the collective intelligence of employees at all levels who need to use one another as resources, often across boundaries, and learn their way to those solutions . . ." (*Harvard Business Review*, January-February 1997). Through our conferences, through this newsletter, through our evolving Web sites and list servers, and through our friendships with each other, we will collectively keep learning our way to solutions. Thanks for being a part of it all.

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**Participating Institutions:** Antioch University, Bellevue Community College, Bellingham Technical College, Big Bend Community College, Central Washington University, Centralia College, City University, Clark College, Columbia Basin College, Eastern Washington University, Edmonds Community College, Everett Community College, Gonzaga University, Grays Harbor College, Green River Community College, Heritage College, Highline Community College, Lower Columbia College, North Seattle Community College, Northwest Indian College, Olympic College, Pacific Lutheran University, Peninsula College, Pierce College, Renton Technical College, Saint Martin's College, Seattle Central Community College, Seattle Pacific University, Seattle University, Shoreline Community College, Skagit Valley College, South Puget Sound Community College, South Seattle Community College, Spokane Community College, Spokane Falls Community College, Tacoma Community College, The Evergreen State College, University of Puget Sound, University of Washington, Walla Walla Community College, Washington State University, Wenatchee Valley College, Western Washington University, Whatcom Community College, Whitworth College, Yakima Valley Community College.

# Compared to What?

## How Do We Evaluate Learning?

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Will higher education be late to the revolution? In their recent book, *The Learning Revolution: The Challenge of Information Technology in the Academy*, IBM's Diana Oblinger and Sean Rush draw an intriguing contrast. On the one hand, some predict that 1 billion users will inevitably push Internet traffic past telephone traffic by the year 2000. On the other hand, only 10 percent of the nation's college and university classes currently use the Net or World Wide Web, and less than 25 percent use information technology resources at all.

If you didn't want to miss the revolution, "Technology on a Human Scale," the Washington Center's recent teaching and learning conference came along just in time! And it was a memorable and stimulating collection of people. Most were the admirable risk-takers, the early adopters who teach in the 25 percent technology-savvy classes. A few were their students, a few more supportive administrators, and then others like myself, who would like to see the great potential of computer-assisted collaboration unfold. At conference's end, I was struck most by a simple thought: how important comparisons are, especially comparisons experienced in the same room.

That reminds me of a session I wish now I had attended. Evergreen's Helena Meyer-Knapp titled her session, "Constructing a Web Page, Staging a Play: Contrasts in Collaborative Opportunities." The genius of her craftily integrated course was that students did not just read about but lived through the differences between high-tech and low-tech activities — and not in two disconnected courses but in the same course, the same room. In a session I did attend, Lawry Gold from Pacific Lutheran compared fully "embodied" face-to-face learning with the "disembodied" E-mail learning he uses with his students in Scotland. Will comparisons like these be sharp enough and their lessons persuasive enough to shape the inevitable technorevolution in higher education? Because social forces outside the university are moving so rapidly, I suspect that many crucial comparisons will not be made in time.

In his opening keynote, Lester Faigley described the Western Governors University, an all-on-line, multi-state university without classrooms. Reflecting the benefits of asynchronous learning networks along with the imperatives of hard-pressed state

budgets, it is "anyone-anytime-anyplace" education. Carol Twigg, vice president of Educom, has said that WGU's importance "is being compared to the impact of the GI Bill after World War II," meaning greater access for people to higher education. That sounded good. As its Web site spells out, WGU will represent computerized distance learning at its best: "client-centered," "competency-based," "high quality and cost-effective enriching education with expanded opportunities . . ." The phrase "cost-effective" could be translated as "doing less for less" but everything else sounds good. However, how high will the "high quality" of its all-on-line education be? And, more important, compared to what?

That question immediately brings Evergreen's Norm Chonacky to mind and his invitation to another instructive comparison. We had formed small groups in his session to discuss what he called "project-based learning through collaborative information technology" and, wonderful word, the "collaboratory." Our group of six had just decided what project we were going to explore when he stopped everyone and asked, "Do you think you could have arrived at your decision as efficiently or as effectively with E-mail?" Our group's consensus had not been particularly hard-won, but at the least we realized how much longer it would have taken to keyboard fifteen minutes worth of words onto a common screen. Would E-mail have worked as well? The quick and unchallenged response from the room was, "No."



Magda Costantino (The Evergreen Center for Educational Improvement) introduces Steve Gilbert (AAHE), who leads a mini-version of the teaching and learning technology roundtables which are one of the most powerful opportunities nationally for faculty to come to grips with technology. (Photo Credits: Fran Dunaway)



Willie Parson and Joye Hardiman (TESC-Tacoma) share stories about TESC-Tacoma's ventures into integrating technology, learning and community.

Thinking back to WGU, will Chonacky's future classroom research show that Evergreen's collaboratory graduates, who mix asynchronous on-line and synchronous off-line collaboration, be better at team decision-making than WGU's business graduates? Will that comparison or comparisons like it ever be made — and provide lessons to guide instructional policy? Will the Washington Center be as skillful at promoting strategic comparisons grounded in well-muscled assessment as it is at reporting the variety of faculty initiatives?

Part of the challenge is that few of the many technological options and path-breaking teaching initiatives I heard about at the conference came attached to formal assessments. If you know where you are going, you will know when you arrive. Did these initiatives "arrive?" The conference was marvelously worthwhile, please don't misunderstand, but much conversation reflected the earliest stages in the assessment process: engaging personal stories about

classroom experiments, illustrations of technological wizardry, intriguing but impressionistic observations, and often, arresting intuitions. But that's not what I think of as assessment. Part of the challenge too is that comparisons I may find interesting such as those between E-mail and face-to-face collaboration, are much too abstract and global to be ultimately useful without translation. In a wonderfully intriguing essay, available at the American Association of Higher Education (AAHE) Technology Project Web site, titled "Asking the Right Question," Steve Ehrmann warns about seductive but hopelessly universal and unanswerable assessment questions. In actual use, E-mail and face-to-face collaboration are of many, many different kinds. From this plurality, which is being assessed, which compared — and in which context? In any case, both are loosely defined instructional strategies or means, not observable learning outcomes at all.

Diana Laurillard sets my mind on edge about assessment — and about computerized teaching — the way Steve Ehrmann does. She points out in her *Rethinking University Education: A Framework for the Effective Use of Educational Technology* that learning outcomes in technology-assisted teaching must be painfully clear and painfully specific. Although this grates against my (and most academics') preference for the abstract, she asks: "Is the learning behavior defined precisely enough that you could agree with a colleague about whether a student was exhibiting that behavior?" I would add: Could two students also agree? "Increased critical thinking," for instance, is a crucial but abstract goal, not an assessable behavior. The sub-activities that make it up such as "distinguishing conclusions from reasons" are closer to being assessable. Maybe assessment is so excruciatingly difficult for me and for most faculty I know — and maybe my students have not been as successful as they might

have been — because I am not consistently microscopic enough about what learning looks like and sounds like. Since I was never a professionally trained teacher, how could I have known that when I emulated those who taught me and wrote “this needs clarification” or “be more creative here” or “think more critically” in the margins of student papers, it was too abstract to provide students the help I intended — or to be an accurate assessment of their progress? They would not have known what, specifically, to do on their next draft.

Because it so skillfully raised assessment issues, the session Jean Henscheid helped lead on Washington State’s first-year program was the most generative I attended. Once we knew, roughly, what the computer-assisted program looked like, we spent our time in smaller groups trying to account for the strikingly positive results. And we began making comparisons immediately. Using the AAHE’s Flashlight Project questionnaire, freshmen who took the seminar — especially those who had graduate student tutors — reported noticeably higher self-reported success in “exercising creativity,” “better understanding of the subject matter,” and “spending more time studying” than those who were in traditional lecture-dominated classes. At-risk students who took the seminar, a key freshman population, did markedly better, as measured by semester GPA, than those who did not. And, as the coin of the realm, a passing GPA is crucial to academic solvency.



Emily Decker (Washington Center) and Jeanine Elliott (Washington Center) share a moment at the conference.

However, the WSU session was wonderfully conceived to prompt questions. What may be exceptionally useful institutional information for tapping student perceptions and tracking increased freshman retention may not be as useful in assessing student learning. Self-reports from students about their “better understanding of the subject matter” or “improved writing skills” need to be compared with independent measures. Abstract goals such as “better understanding” need to be contrasted with specific behaviors. GPAs need to be compared with the more specific learning outcomes they presumably reflect. In many ways, the learning

revolution raises pre-revolutionary questions about how best to evaluate learning.

Lee Knepfelpack at an earlier Washington Center conference wisely advised, “Never teach one, always three.” To do that persistently, of course, is to put diversity at the heart of education. If the worth of a conference is judged as much by what it promotes as by what it provides, “Technology on a Human Scale” successfully prompted me to remember to “teach three.” I hope the Washington Center will be able not only to wed its assessment initiatives to its technology initiatives but to put well-assessed computer-assisted experiments in the same room for actionable comparison. ■

Internet resources:

Steve Ehrmann, “Asking the Right Questions: What Does Research Tell Us About Technology and Higher Learning”: <http://www.aahe.org/change.htm>

Western Governors University: <http://www.westgov.org/smart/vu/vu.html>



Jeanine Elliott (Washington Center) and Barbara Sylvester (WWU) line dance after the reception Friday night.

# Announcements

## Be Sure Your Campus is Represented!

First Annual Washington Center Congress

December 4-5, 1997  
Alderbrook Resort Center

The Washington Center is holding its first annual Congress, a gathering of teams from all of our 46 member institutions. Invitations will be mailed to institutional contacts and chief academic officers, inviting them to select a team of three people from that campus, including at least one faculty member and one administrator, who will participate in this event. We are excited about the synergies that will be created when a group of faculty and administrators from diverse institutions gather to talk about an issue of common concern. To find out whether your campus has identified a team of participants, please call us at (360) 866-6000, ext. 6611.

This year, at the first Congress, we are going to focus on authentic assessment and institutional accountability, imaginatively and collaboratively engaging with these important issues. What accountability measures might we propose if we applied the concept of authentic assessment at an institutional level? To help us in our work, we have invited Bill Bergquist, noted author and consultant, to lead us in a workshop on identifying the often conflicting cultures and values within an institution that make it hard to reach consensus on overall goals. Following the workshop, we will use an Open Space process to organize ourselves into issue-oriented groups, challenging ourselves to speak honestly and thoughtfully about the shape we would like the public conversations about higher education and accountability to take. Proceedings from these groups will be available through the Center following the event, but we hope every campus will send a team to enrich and to shape these crucial conversations.

## Washington Center Annual Conference: Embracing Community, Diversity and Change

February 26-28, 1998  
SeaTac Marriott, SeaTac

"Perhaps no skill is more important to the office of citizen than the ability to teach or encourage one another to speak so that you can actually be heard by others who do not already share your views. One of the great signs of the periodic weakening of democratic culture is the tendency to fall into one or both of two kinds of self-indulgence: to speak always and everywhere in chorus with those who share the same views, or to fall into complaint, whining and anger. Many of the talk radio hosts of the nineties are simply parasites on these worst and lowest instincts, this fundamental alienation of people from their democratic competence." Daniel Kemmis, *The Good City and the Good Life: Renewing the Sense of Community*.

This year's annual conference promises to be a wonderful celebration and an occasion for real talk about difficult issues. We want to wrestle with the consequences of embracing community and diversity in times of change, acknowledging our differences and also acknowledging our commonalities. The keynote speakers will illuminate dimensions of the topic in stimulating ways. Daniel Kemmis, author of *Community and the Politics of Place* and *The Good City and The Good Life: Renewing the Sense of Community*, former speaker of the Montana Legislature and current mayor of Missoula, will open the conference with a talk entitled "The Good City as a Learning Community." Kemmis also will lead a workshop on building better relationships between higher education and public policy makers. Bruce Miller and his storytelling apprentices from the Skokomish tribe will perform a variety of events including traditional Skokomish stories, skits, and some things which require audience participation Friday afternoon.

On Saturday morning Lucinda Roy, professor of English and Black Studies at Virginia Tech University, will read from her forthcoming book, *Lady Moses: A Novel*, and talk about the role of creativity in community. Her 1995 book of poems, *The Humming Birds*, brings women's history alive as we look at the world through the eyes of a slave and of a woman remembering Africa, her mother's death and passionate love. Joye Hardiman, director of the TESC Tacoma Campus, will close the conference Saturday afternoon with reflections on what it means to actually embrace community, diversity and change as a campus.

Among the workshops offered during the conference will be:

- Updates on Affirmative Action
- The Costs of Homophobia
- News From the Students of Color Conference
- Examining the Consequences of Whiteness
- Storytelling and Community Building
- Building Coalitions for Part-Time Faculty
- Community-Based Learning Designs
- Managing Change: An Administrative Perspective
- Embracing Different Ways of Knowing
- Tapping Our Own Creativity
- Evolving Learning Communities

**In all, we can promise you an engaging, provocative time. Brochures will be mailed to you in October. Please join us.**

# Technology, Learning and “The Complexity of Coming to Know”

Bill Moore  
State Board for Community and Technical Colleges

“Is there hard quantitative data demonstrating that students do in fact learn more when this technology is used?”

“Not exactly. Assertions like that about paper or electricity wouldn’t be possible nor is it possible to say something that global about computers, video and telecommunications... Technology is usually acquired because it’s virtually the only way to teach certain content or to reach certain students, not because it’s better as a way of teaching what you’ve always taught.”

Response from Steve Ehrmann,  
American Association of Higher Education, to a  
question on the AAHE technology listserv, March 1997

Emily Decker asked me some time ago if I would write some reflections on the Washington Center Technology Conference in light of the faculty retreat I had sponsored in January on “Principles of Quality in On-line and Distance Education.” Being unconstitutionally incapable of saying “no,” I agreed. Finally, I am getting the writing done, but for once procrastination pays off! Now I can incorporate ideas both from our recent statewide assessment conference (especially John Abbott’s keynote comments) and from a wonderfully challenging and thoughtful book I found recently, Diana Laurillard’s *Rethinking University Teaching: A Framework for the Effective Use of Educational Technology*.

“The Complexity of Coming to Know” is in fact one of her chapter titles and is the perfect starting point for a series of brief reflections on the intersection of learning and technology. Within these reflections, where appropriate, I will incorporate perspectives drawn from the faculty attending the January retreat (most of whom were people with considerable experience teaching in or thinking about a “distance education” context).

Learning is a complicated, messy process that, in David Perkin’s words, is a “consequence of thinking.”



Bill Moore gets groups working on defining characteristics of high quality learning experiences.

What does it mean for you “to learn” something? How do you know that “you know” something? There is now a considerable and growing body of research on student learning (much of it summarized by Laurillard in her book) that supports a “constructivist” view of learning — namely, that learning involves students’ active construction (and in many cases only after the dismantling) of conceptions and understandings about the topic or task at hand. The latest advances in neuroscience and brain research cited by John Abbott at the Washington State Assessment Conference in May reinforce the empirical support for this perspective as the best current model of learning.

There seems to be some debate over how thoroughly context- and task-specific this meaning making is, but there is little if any current support for viewing learning as a simple or straightforward transfer of information from someone who has it (the teacher) to someone who doesn’t (the learner).

For most academic settings, learning involves students being exposed to material, situations, or experiences (broadly defined), having some opportunity to reflect on that exposure and integrate an understanding of what has been encountered into one’s current knowledge and understanding, and having a chance to demonstrate for themselves and for an external

audience (typically, but not necessarily, the teacher) the extent to which some learning has been achieved (i.e., assessment and feedback). According to Laurillard, this learning needs to be distinguished from learning outside the academy: "Everyday knowledge is located in our experience of the world. Academic knowledge is located in our experience of our experience in the world.... That's why I like to call the kind of teaching we do in the academy 'mediated learning.' Access to experience is direct; access to academic knowledge is mediated by the teacher and the teaching materials."

If academic learning by definition is mediated learning, then various forms of instructional technology can be viewed as no more or less than additions/alternatives to the more typical — "traditional" — forms of "media" presentation of material (i.e., lecture, textbook, handout, etc.).

With respect to learning mediated largely "on-line," a number of faculty at the January retreat noted that developing or translating a course for an on-line context helped them clarify the purposes and nature of learning in the sense of defining the essential core of what needed to be shared with students and in what ways. That clarification process helped them separate and enhance the range of distinctive agendas/purposes inherent in most courses — i.e., content delivery/information exchange, skills, and thinking/judgment processes. The design and adaptation process of a particular course or learning experience seemed to be a powerful metacognitive opportunity for faculty.

According to several retreat participants, one specific aspect of learning enhanced by the integration of on-line resources into existing courses relates to students' finding and using effectively the enormous range of information resources available to them via the World Wide Web (WWW), encouraging exposure to different perspectives/ways of thinking, information literacy regarding seeking/analyzing range of

## Observations on a Conference: What I Want to do on Monday

Kevin Facemyer  
Washington State University

After each meeting or conference I attend, I wonder: "What will change in my work on Monday morning?" I try to answer this question so that I can tell my team what I learned and how it will affect us as a workgroup. This approach applies to both of my professional roles with the university. As director of Virtual Washington State University (VWSU), I often adopt perspectives, learn new approaches and find solutions to problems my organization faces. As a director, I usually have an agenda, an issue to explore or a problem to solve. In my other role with the university as researcher in the WSU Virtual Professional Development School (a school for K-12 students, K-12 teachers and preservice teachers), I have a less pragmatic and more theoretical bent to my interests. If as director I ask, "what changes Monday," as a researcher I ask, "why." The recent conference, *Technology on a Human Scale*, gave me opportunity to exercise each of these interests and approaches.

For VWSU, I brought back some perspective on the views of faculty as we enter into some precarious partnerships with corporate sponsors. Lester Faigley reminded us of the Orwellian possibilities of teaming up with a partner that might not share our motivations. He also argued that corporate overtures could probably be tempered if we as a professoriate project clear messages about learning and scholarship and the roles of students and technology. Lester walked a precarious line between courting the corporate partners for their support and cowering away from corporate interference. This is a debate that rages at my institution as well. Often finding myself in Lester's position of fielding questions, moderating nonquestions, and attempting some synthesis and closure to a thorny issue, I was anxious to watch and learn as someone else dodged and ducked the corporate/higher education partnership bullets. As usual with such heated discussions, there are rarely clear victories nor gracious exits.

(Monday's change in activity: encourage faculty to have a clear vision about technology articulated. Prepare faculty for opportunity to accept corporate help candidly and honestly or prepare them to secure alternative external resources on the strength of their own convictions.)

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material available, and problem finding and problem solving. As Lester Faigley described it at the Washington Center conference on technology, using the WWW is like using a library with the card catalog strewn randomly on the floor, with no clear cues for students as to the value and/or credibility of any particular site or piece of information available. While there are clearly dangers in such an "anything goes" environment, retreat participants generally felt that the access to resources not otherwise available and the teaching potential related to the areas cited above outweighed the negatives overall.

Given the complexity of the learning process, including the diversity of learners in any given learning setting, the nature of faculty work in that setting needs to be re-examined in light of the goals for the given set of students and course context.

Teachers have a key role to play in the learning process, whatever form it takes, but as Finkel and Monk (1983) note, it's considerably more useful — and educationally more powerful — to think of "teaching" as a set of functions to be accomplished in a learning context than as a single role fulfilled by only one person, namely "the teacher." Laurillard suggests that a successful

teaching/learning environment will address effectively four major functions or characteristics:

- Discursive: making teachers' and students' conceptions of the topic at hand accessible to each other and part of the public discourse of learning.
- Adaptive: shifting the focus of the process depending on how the learning is proceeding.
- Interactive: engaging students at a practical level (getting them to actually do something) and getting feedback on those efforts.
- Reflective: students linking their feedback back to the topic goal(s) and articulating to the teacher (and themselves) their new understanding(s).

Several retreat participants were pleasantly surprised that in an on-line teaching/learning context, these functions were engaged differently from a typical course in that their roles as teachers seemed to shift away from being the sole authority for the students to more of a facilitator/participant (through the various communication formats used — e.g., E-mail, electronic bulletin boards or list servers). For students, the shifts generally involved a higher level of independence and attention as well as increased demands on reading and writing skills. Such issues could be barriers for some students, but are also learning opportunities given appropriate support.

Faculty at the retreat were also quick to point out that teaching on-line takes a lot of time, especially the first two to three times one does it, and that changing technology demands tend to mean that faculty have to keep re-learning some of the tools involved in making such a learning context work smoothly. They also noted that in their experience the on-line teaching/learning context seemed to encourage a new kind of collaborative approach to working with their peers, not just students. Given that it is difficult for most faculty to accomplish this kind of work on their own, they needed to seek out and learn from colleagues. That process proved to be a positive side benefit overall.

Assessment of quality learning — or, if you will, the so-called rigor of a particular learning context — should not be on the medium or techniques involved but on the extent to which the core vision of learning is addressed and appropriate learning achieved.

Laurillard uses her conceptual framework for “mediated learning” to evaluate the array of currently available technological resources and tools for the extent to which they support or enhance these functions, based on the purposes for learning involved. The central question here, regardless of the medium or tool involved, is one of instructional design: as a faculty member, how can I create a rich and engaging learning environment, for and with students, that I believe will do the best job of accomplishing the learning purposes at hand? Educational technology of various forms can extend the tools at my disposal to address this design question, but it only represents tools, not an end or purpose for its own sake. Thus instructional technology simply (or not so simply!) expands the repertoire of learning approaches available to the teacher and learners (in some cases to students and topics/tasks not previously accessible).

For educational innovations, including productive use of instructional technology, to be sustained over time and lead to meaningful reform, the primary focus needs to be on issues of “core educational practice” — how teachers and students understand and approach knowledge in the learning environment — rather than on promoting particular techniques or tools per se, and certainly not as panaceas.

Finally, Richard Elmore (1996) recently observed that repeated public school reforms have made little lasting impact in the American educational system, in part because the structural incentives in the system have not encouraged or supported significant changes in this core of education practice as defined above. Moreover, as Ted Marchese suggested at this year's first “Learning Paradigm Conference,” many of us in higher education operate without a clear and coherent vision of learning to provide a guiding framework for such changes, thus winding up with techniques and innovations galore but no clear context or rationale from a learning perspective. Fullan (1997)

notes the danger in this tendency toward “quick fix” innovations and techniques: “There is no silver bullet, shortcut to reform. We stand less of a chance by pursuing the techniques of innovation than we do by working on a deeper understanding of the complex interrelationships of emotion, hope, empathy and moral purpose . . . . (Techniques) are at best tools in the service of a more fundamental set of relationships.”

Whatever innovative techniques we may want to pursue — in this case the wide array of instructional technologies becoming more accessible every year — we need to put them in the context of the learning situations we create and the diversity of students we serve — different ages, developmental levels, experience bases, motivations, styles of learning, language skills, etc. How do we incorporate into courses/programs an appropriate array of learning modes and provide opportunities for students to use them most effectively? How do our students come to know, and what tools can we use to help them in that process? Instructional technology in its myriad forms is neither a panacea nor a curse in our efforts to grapple with the never-ending complexity of these questions. ■

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As part of the Uwired presentation, Brennan O'Reilly asked the audience to climb up on their chairs. A simple shift of perspective — a new way of seeing.

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I approached the next session with my pragmatic hat on in hopes of learning how the University of Washington's Uwired projects maintains such a coordinated and unified set of goals. How were their faculty bearing up under the stresses of course transformation? How were their librarians responding to new roles? How were students adapting to new learning expectations? How was administration shifting resources and focuses? I was not disappointed. Louis Fox and his team addressed each of these questions. I use the word address, because really, there are no answers to these questions — simple ones at least.

(Monday to-do list: get project participants to write and publish a book; test laptops on student athletes and explore project to help information technology workers make the transition to knowledge management support workers with leadership and educational roles to fulfill.)

I brought my mercenary get-solutions pragmatic stance to Steve Gilbert's Teaching and Learning Technology Roundtable session. Since Steve has seen hundreds of higher education institutions, he has several interesting perspectives on technology and undergraduate education. (I particularly like his "certification, chips, sweatshirt" conceptualization of teaching perspectives.) Drawing on this discussion, I have settled on a distinction between two perspectives: credentialing, when the purpose for using technology is to increase student/teacher ratios; and personal growth and social development, when the purpose of using technology is to reduce the student:teacher ratio, bringing teachers and students into a learning community.

(Monday to-do list: review our institution's strategic plan and determine which perspective it reflects.)

I liked the session in which Jean Henscheid and Michaelann Jundt described and contrasted their learning community programs for first-year students. After the program reviews, Jean provided data from her program and charged us with analyzing it for some specific purposes. We broke into groups, analyzed and then reconvened into a large group to synthesize and draw some conclusions. A full room spent its time well and everyone was engaged.

(Monday: figure out how to get learning communities into the realm of possibilities for more mainstream courses at WSU. Figure out how to get a learning community set up for our faculty.)

Both sides of my split personality, director/pragmatist and researcher/idealist were engaged. I left feeling like I had the chance to accomplish some of the Monday morning ideas I had penciled into the margins of my program. ■

# The Promise of Technology: Access for Whom? According to What Criteria?

Rebecca Boon, Jacquie George, Yi Lin Sun  
Seattle Central Community College

Looking back on the description that we wrote for our conference presentation, "Access for Whom, According to What Criteria?", it's clear that we had no idea what we were getting into. It reads: "of particular concern to these presenters is the fact that ABE and ESL students do not receive adequate technological resources and opportunities as the rest of the college is zooming down the information highway. . . ." This quote makes us laugh now. Nobody, at least in the state of Washington, is zooming anywhere on an institutional computer.

So, who's entitled to access anyway? Those at our presentation decided that everyone was. But what about equal access? Sure, everyone deserves equal access. Who gets it? Well, not everyone; after all, there's only so much to go around. But nobody present wanted to be involved in making the decision about who wouldn't get access at their institutions, including the presenters.

Going into the presentation, we were all set to convince everyone in the audience to become an activist for ESL

and ABE students across the state. We wanted everyone to go back to their institutions and suggest, nay demand, that Basic Skills students get top notch computer access — in today's world computer skills are basic skills, right? Our problem, however, was that we were looking at the issue with blinders on, suffering from severe tunnel vision. When we really started to put our presentation together, we began to realize the immense problems that all of our students and computer services staff face when dealing with computer usage.

Since the three of us are faculty at Seattle Central Community College, we decided to use our institution's problems to help us identify the broader issues. We teach ESL in one of the largest Basic Skills programs in the state of Washington. Our FTE generation is second only to the Humanities/Social Science Division. Yet, our students use cast off computers — 386s with such old and outdated software that they are hardly useful. Anyone remember hot keys? Most students are allowed to use the lab a

maximum of one hour a week, during class time. ABE/ESL students don't have access to the Internet in this lab either. In an attempt to make our ABE/ESL computer lab viable, the Basic Studies Division purchased a large amount of software a few years ago; however, we have been unable to use any of it. It sits in boxes, collecting dust, because our computer services staff doesn't have the time or money to install it. And if any machine should break, there is no budget to have it fixed. While it's true that our ABE/ESL students have access to a computer lab, it's hardly equal when students in transfer-level classes use labs with Internet access and up-to-date software.

"When we really started to put our presentation together, we began to realize the immense problems that all of our students and computer services staff face when dealing with computer usage."

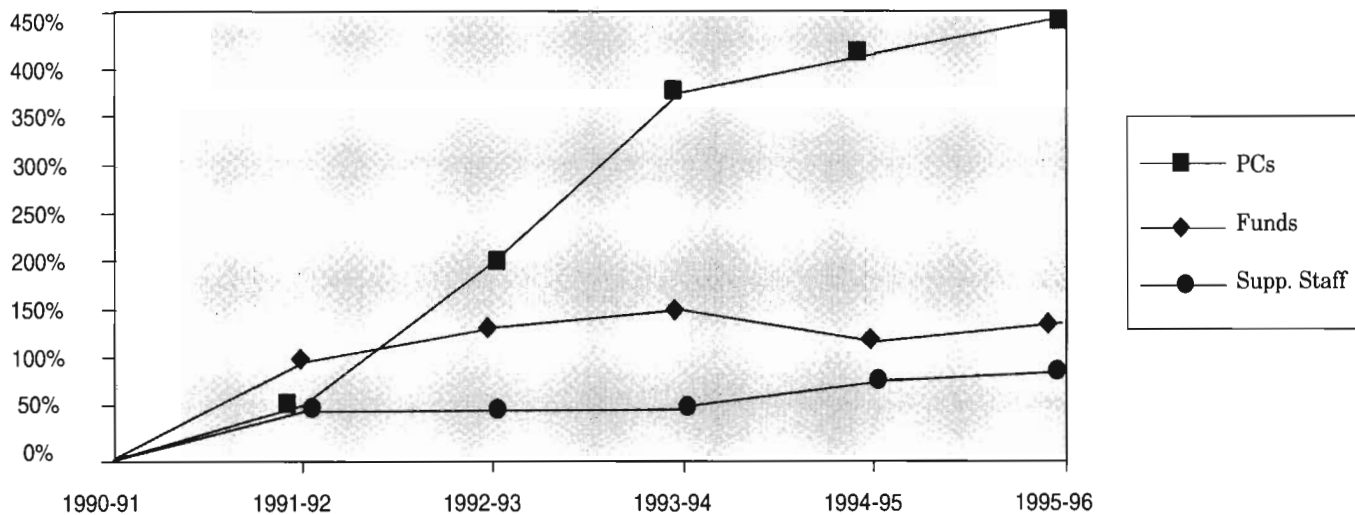
Around the corner from our offices is the main Student Computer Lab. Students pay a \$25 quarterly lab fee for an array of computer services. Instructors assign work to be done on a computer, and then everyone goes to the lab. And waits. In fact, the SCCC computer lab turns away 50-60 students per hour — sometimes as many as 125 students are on the waiting list to get in. That's not equal access either.

Looking at this information and at the reasons behind it, we found that what we had originally seen as Computer Services' reluctance to work in the ABE/ESL computer lab was really inability; there was just no money and not enough staff. The additional difficulty here is that



LuVersa Sullivan (Institute of Electronic Design), whose closing keynote focused on describing what it is students can have access to as well as demonstrating what students are able to do with these powerful tools, pauses to help the youngest presenter get ready for his session.

# The Growing Gap Between the Number of PCs and Computer Service Support Staff



ABE/ESL students do not pay a fee for using the ABE/ESL lab for many reasons, one of which is that since ABE/ESL classes are tuition-waivered in Washington, SCCC has not imposed a computer lab fee on these students. Besides, who would pay \$25 for one hour a week?

Computer growth and use on our campus has risen dramatically, just like it has at many schools across our state. Almost every full-time instructor has a computer in her/his office, and many part-time instructors have computers in the offices that they share with other faculty members. There is a faculty computer lab and the aforementioned, well-equipped student computer lab, which has grown over the past five years. At SCCC, in 1990-1991, there were 82 student PCs; in 1995-1996, there were more than 450. But while the number of computers has grown, the support for computer support has decreased just as dramatically. In 1990-1991, SCCC operated at 66 percent of the CTC recommendations for support costs; in 1995-1996, that figure was down to 30 percent. The graph above clearly shows a dangerous trend. The gap between the number of computers and the amount of money for support costs is sometimes called the "Unhappiness Gap" — but it is also known as the "Hostility Gap."

According to Harriet Wasserman, SCCC's Computer Services manager, Computer Services staff are often greeted with "When will you install such-and-such a program? And good morning." At one time Computer Services could study technology, evaluate its appropriateness for our institution and work with faculty on projects, but that's the past. Computer Services staff just can't keep up with support demands, let alone do research. Our naïve question to Harriet was, "So why'd you buy all those computers?" "We didn't," Harriet deadpanned. The vast majority of the machines that have gone to faculty came from one-time equipment initiatives from the state legislature — unfortunately, no additional money has been earmarked for support. No installation and no repair money — sounds like a bad car loan. Needless to say, the Computer Services budget has been stretched very thin.

None of this may be news to you (Harriet says that she hears the same stuff from schools across the state), but it was certainly news to us. Although we will continue to advocate for equal computer access for ABE/ESL students in our institution, we will do so with greater care, understanding that the real struggle is equal access for all, including our overworked and underfunded Computer Services Department. ■

## What can we do on our campus to ensure increased access for all?

1. Get involved in the technology planning at our institutions. We all need to plan the purchase of equipment and create a plan for machine repair and replacement.
2. Identify crucial needs.
3. Have realistic expectations for what we can accomplish with our decreasing budgets.
4. Reallocate resources.
5. Revise fees; perhaps your institution is already discussing the implementation of a universal technology fee.
6. Work to repeal Initiative 601. No single piece of legislation has tied the hands of higher education more than 601.

# Using Technology to Enhance Diversity Work

## A Look at Diversity Connections

Bob Steele  
Wesleyan University  
Director, Diversity Connections

One of the goals of Diversity Connections — the graphically engaging, simple-to-use, interactive database of more than 200 initiatives designed to enhance inclusion on college campuses — is to use computer technology to facilitate the fullest and most complex expression of the richness of multicultural education around the country. The use of CD-ROM for the second edition will allow for a greater breadth and depth of inclusion because the voices of well over 150 of the students, faculty and administrators who are part of the campus diversity effort nationwide will be included.

“We look at diversity every moment. In our curriculum, we deal with race, we deal with gender, we deal with sexual orientation, we deal with age, we deal with religious affiliation. We infuse them together because our goal is to help students develop the skills to have dialogue across differences, and to give them the kind of experiences that will allow them to do external collaborations in their jobs, in their families and in their lives.”

— Joye Hardiman  
Executive Director, Tacoma Campus,  
The Evergreen State College



Bob Steele (Wesleyan University) interviews Ann Martin (Edmonds Community College) for Diversity Connections.

At conferences like the recent Washington Center Conference, “Technology on a Human Scale,” and on campuses from New Jersey to California, I have been asking people how diversity efforts on their campuses are affecting their work. Both the voices of the respondents and the full text of the interviews will be included in the Diversity Connections CD-ROM, which will be distributed in about a year.

I have found that there is no one answer to the question, no politically correct response, but a wide-array of thoughts and emotions that address the intricacies of the personal and institutional changes that are central to our collective efforts to make higher education a more welcoming and inclusive environment.

Krystine DiNardo, a graduate student at the University of Massachusetts at Boston, puts it this way: “Through word of mouth I heard about the disability services program at University of Massachusetts at Boston. Immediately I felt like this might be a place for me. I called and talked to disabilities services and the people there were just extraordinarily welcoming. Just to hear that the school was open to people with disabilities and that there was a large disability population here made me feel comfortable. Just knowing that, I felt that if other people can do it, I could probably do it as well!”

Increasing access, both physically and psychologically, is fundamental to diversity, because making campuses more inclusive increases people’s sense of belonging and commitment. As Barbara Determan from the Washington Center says, “The way our commitment to diversity has influenced my work is that I feel that the work I’m

doing is helping others to understand my ethnic background; My feelings have been validated, not just by myself, but by others in the community and in other institutions. Finally, it's being heard, and that's what makes me want to work more."

A similar sentiment is expressed from a different point-of-view by Lois Rudnick, director of the Department of American Studies at the University of Massachusetts at Boston "I think the students at University of Massachusetts at Boston feel very comfortable because they don't feel isolated here. They feel that the faculty and staff are more than happy and interested in issues of diversity and issues of similarities and differences. I think that this is a vitally strong component for the students here. Nobody feels alone."

If campuses are being transformed into more heterogeneous and caring environments, then classrooms are being altered in equally dramatic fashion. Diversity disrupts the canonical, bringing new life to the academy. As the following quotes show, these challenges to teaching and learning are often difficult, and yet welcome, and are seen as central to the educational process:

"As a teacher, it is my responsibility to expose my students to a wide range of intellectual possibilities and historical, literary and legal knowledge. I can, at the Tacoma campus of the Evergreen State College, actually admit that I see the world from my perspective. And it is a subjective perspective. It is not a fabricated, objective perspective. So I am free to teach, to learn, to grow — I don't have to pretend who I am." (Artee Young, faculty, The Evergreen State College, Tacoma Campus).

"University of Massachusetts at Boston's focus on diversity has affected my teaching at its very root. In the past two or three years, I have become much more involved in examining pedagogical issues related to multiculturalism, especially in looking at resistance in students and faculty to multiculturalism in classes and how to cope with that resistance, how to use that resistance in a positive way. This process has intellectually challenged me and emotionally challenged me enormously." (Connie Chan, associate professor in human services, University of Massachusetts at Boston).

## Announcing Diversity Works: Workrooms

DiversityWeb is one of the finest resources on the Web for those working on campus diversity issues. Adding to a rich database, a campus diversity guide, and other pertinent information, DiversityWeb will now include "Workrooms" — "chat rooms" that use threaded conversations to facilitate the kinds of conversations we are used to having at conferences. The Workrooms are organized around the topical priorities which also structure the other components of DiversityWeb (<http://www.inform.umd.edu/diversityweb>). The discussions focus on:

- Institutional Vision, Leadership and Systemic Change
- Curriculum Transformation
- Faculty and Staff Involvement
- Student Experience and Development

### SOON TO BE INTRODUCED:

- Affirmative Action

The Workrooms will provide spaces in which practitioners from all parts of the United States can come together on-line around these priorities to hold discussions and share resources and information.

To make sure an invitation to the Workrooms is sent to you — or to your colleagues — please send the names and E-mail addresses of those interested to: [d-web@aacu.nw.dc.us](mailto:d-web@aacu.nw.dc.us)

Each Workroom will allow participants to post information and resources as well as engage in discussions and queries. Moderators can send out announcements of dates and times discussions will be held around specific problems/issues or when particular guest participants will join the Workroom for a topic discussion or to meet specific participants' needs.

You will be able to subscribe to the conversations which interest you most. By subscribing you will automatically receive direct E-mail from the Web site every time a new posting is made to that conversation — so by subscribing, the site will reach out to you.

### You can also visit and add to our Bulletin Board:

- New conference announcements
- New publications and resources
- Job listings

When you subscribe to these sections each new posting will also be E-mailed directly to you, but you'll want to visit the site to keep up with the developing conversations.

The DiversityWeb team of developers — the University of Maryland and the Association of American Colleges and Universities, in conjunction with our moderators from SUNY Buffalo, the National Association of Student Personnel Administrators, the University of Michigan, the Washington Center and the American Council on Education — is excited about this new venture.

**We look forward to meeting you on-line.**

“My institution’s commitment to diversity has really had a positive impact on my teaching. Considering the student population at our college, and also the changing world, it’s vital. Now I’ve been incorporating diversity into my curriculum, and I feel it’s tremendously crucial. It will increase communication not just among students, cross culturally, but perhaps internationally, because we have students from all over the world.” (Yi Lin Sun, ESL instructor, Seattle Central Community College).

The inclusive classroom is one that encourages people from many backgrounds to bring their multiple experiences to the classroom and use all that they know to help themselves and others learn. In the following two quotes, Catherine Anthony, an undergraduate at University of Massachusetts at Boston describes this from a student perspective, while Sandy Van Dyk from Bloomfield College gives a faculty perspective.

Anthony says, “Everybody in the classroom is coming from a different place. When an instructor takes this into consideration and really makes you look at it and talk about it, it challenges you. You have to question your own assumptions and are being constantly forced to question what is reality, and you recognize that you can learn from the other people in the classroom. This has been the biggest challenge for me, but it has also enabled me to grow incredibly, and has made my education undeniably richer.”

Van Dyk also sees the transformative power of multiple perspectives changing faculty: “There is another level to the issues of diversity and education — it’s not as simple as diversifying pedagogies and diversifying curriculum. It is also a matter of transforming faculty from the inside out, to the point where they have enough understanding to hear from the students’ points of view as well as from their own academic point of view.”

“I don’t want to liquidate the discourse on race. I do not at all, anymore than I want to liquidate the discourse on class or gender, as well as sexual orientation. However, I want to blow that up, and say that, even within one particular racial group, ethnic group, sexual orientation or class group, there is diversity in that. That’s what I think is important. As long as I teach to that, and continue to understand that, it gives me sustenance, makes me grow and increases my imagination.”



— Gilda Sheppard  
Sociology and Media Studies  
Seattle Central Community College  
and The Evergreen State College

This evolutionary inclusiveness which is commented on in so many different voices as being central to the transformational process of diversity education goes beyond the classroom to the campus. For example, it affects libraries. Dan Figueredo, Director of the Talbott Library at Bloomfield College says, “Multicultural education is the connecting of human experiences world wide. Some believe that with multicultural education you do away with the great books, but, in fact, you are adding books to the great books.”

It also goes beyond the campus to the community. Joye Hardiman, executive director of the Tacoma campus of The Evergreen State College, emphasizes that at her campus, “We look at diversity every moment. In our curriculum, we deal with race, we deal with gender, we deal with sexual orientation, we deal with age, we deal with religious affiliation. We infuse them together because our

goal is to have students be able to have the skills to have dialogue across differences, and to give them the kind of experiences that will allow them to do external collaborations in their jobs, in their families and in their lives.”

This small sampling of quotes, which as sound-bites will be part of the Diversity Connections CD-ROM, shows the many perspectives people bring to their views on how diversity education on their campuses has influenced their work. Adding the textures of voices, photographs, music and video to that of text will allow the second edition of Diversity Connections to better represent the multiplicity of ways we communicate about how diversity education is changing what we do in our classrooms, on our campuses and in our communities. ■

# Faculty Development and the Challenge of Technology

## Are We Starving at the Horn of Plenty?

Porsche Everson  
The Evergreen State College

In my perfect world, I have all the time I need to learn new software applications critical to my work. I know about all the features, and I know how to use them efficiently. I know what's currently out there, and I know what's on the horizon. I integrate technology seamlessly with my classes, and my students don't feel burdened by additional tasks associated with that technology. It always works. I never get overwhelmed with technology and I always keep up with my electronic communications.

If this perfect world is as far from reality for you as it is for me, realize you are a member of a very large club. Most faculty feel that they are holding on to the tail of a tiger — technology — and are losing their grasp. Here are some of the comments I hear from my colleagues:

"I just don't have the time to learn all this stuff!"

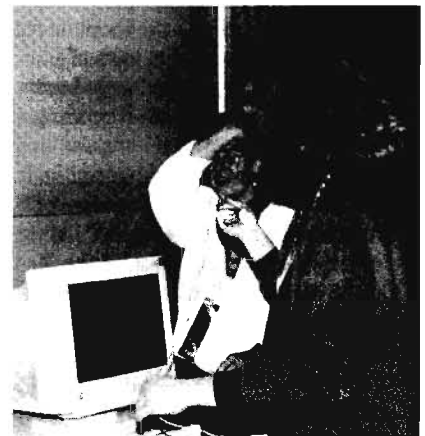
"Why do they keep changing this stuff? I just got comfortable with this version."

"There's no way I can add anything more to my classes. I can barely cover what I've outlined already."

So what can we do, once we have exhausted the feelings of despair and wish to move on? Are there time-saving tricks, quick reference cheat-sheets, or truly easy applications that move us closer to our perfect world? Is there someone who can just give us the answer? Show us the way?

Let me start by defining three types of computer-based technology that are critical to faculty. Information and communications tools, i.e., a library's electronic card catalog, searchable journal databases, E-mail, Web repositories and network resources are global in scope and application. Content-specific technology, or applications like GIS tools, Premier, Mathematica and PhotoShop support specific disciplines but share common themes of being important to smaller numbers of faculty, generally more difficult to learn and use and having fewer training opportunities. Office productivity tools are also global in scope — we all use a word processor, most of us are functional with a spreadsheet and some of us use presentation tools like PowerPoint. Utility applications like a schedule manager or a grading database fall into this category, too.

There are many common themes surrounding faculty as learners. Constant change is the rule, not the exception in technology. Often, faculty who are accustomed to being the expert in their field are challenged by their novice status in computer applications, sometimes knowing less than their students. Additionally, our overburdened faculty are struggling to choose just what to cut out of their lives to learn the applications necessary for their teaching and research.



Porsche Everson and Jan Ott (TESC) collaborated on the development of software that lets human physiology students wire themselves to computers for some applied learning.

How are we learning about technology now? Many options are available to us, some more effective than others. They include one-on-one informal support, multi-day off-site training, short two- to three-hour introductory classes offered by computer support staff, videos and print materials and self-taught exploration or electronic tutorials. If our goal is to encourage faculty to use appropriate technology with effectiveness and ease and expand the scope of our work and productivity with these tools, what are the best options for learning?

The quick answer to that question is that all the methods described are effective and efficient, in combination or alone, depending upon the intended recipient. Nonetheless, many individuals who train faculty offer a few succinct suggestions for what really works.

If the training or workshop is to be successful, it must be targeted to the intended audience. There is nothing more frustrating than an intermediate sitting in on a general overview class or a novice not even understanding the terminology or the pace. Clear outlines of learning objectives are essential to the success of any workshop. Faculty simply cannot afford to waste any time.

Peer learning works really well. The California State University system implemented a series of two-week summer workshops for "early adopters" and rewarded them well for their participation. In exchange, each of those faculty were expected to go back to their institutions and offer training to their peer faculty.<sup>1</sup>

Training options must be rooted and related to the fundamental mission of the institutions. Chickering and Ehrmann describe the Seven Principles of Good Practice in Undergraduate Education which many institutions use to help focus and evaluate their technology initiatives. Will the training help faculty teach better, provide quality interaction or expand their research opportunities?<sup>2</sup>

A variety of options must exist for faculty to learn. At The Evergreen State College, as at other institutions, we offer a combination of training and development opportunities, including weeklong summer institutes, general two- to three-hour sessions, a help-desk PC Support Center where faculty can call with questions as well as specialized, targeted training for groups of faculty in their areas of interest. Timing and topics make a difference. It makes no sense to offer a weeklong workshop in the middle of fall quarter.



Porsche Everson (TESC), Jeanine Elliott (Washington Center), Rochelle dela Cruz (Seattle Central) and Gary Brown (WSU) collaborated on the case that focuses on faculty as learners.

Marketing and advertising our training draws in larger groups. At a recent meeting of regional academic computer staff, many individuals noted a decline in faculty participation for standard workshops, like "Introduction to Word," or "Fundamentals of Web Browsing." Jazzing up the titles and content brings more participation. "Excel for Scientists: Creative Solutions for Common Problems," a recent one-hour demo that combined peer-faculty training with a targeted audience, drew five times the number of participants that our standard Excel workshops typically draw.

And finally, **doing** works better than watching or listening, just as it does for our students. Any training that combines hands-on work with other delivery methods is simply more effective. I get a lot of one-day technical training brochures that offer the supposed advantage of eliminating the hands-on work, allowing participants to focus on the presentation. Are these trainings worthless? Not necessarily, if we go back and try what we have learned within 24 hours.

Finding a realistic approach to keeping up with advancing technology is a key to our continued sanity. The only people who know every single feature, trick and option of Microsoft Word, for instance, are the product support engineers at Microsoft who answer the technical support phone lines. Sometimes we feel that everyone else knows more about this stuff and is far more efficient, leading to feelings of failure or inadequacy. My response to that is to operate on a "need to know" basis, with an important twist. I learn what I need to **learn**, when I need it to operate effectively in my work. ■

<sup>1</sup> Instructional Technology Initiatives, Commission on Learning Resources and Instructional Technology, California State University System.  
<http://www.co.calstate.edu/aa/iti>

<sup>2</sup> Chickering, Arthur and Stephen C. Ehrmann (1996), "Implementing the Seven Principles: Technology as Lever," AAHE Bulletin, October, pp. 3-6.  
<http://www.aahe.org/ehrmann.htm>  
See also "The Flashlight Project",  
<http://www.aahe.org/elephant.htm>



# Technology and the Quality of Academic Work and Life

## Faculty as Learners: A Case Study

Lee and Chris started off the quarter eager to implement the interdisciplinary class<sup>1</sup> for which they had both been especially tapped. Lee, who was a leader in the design and implementation of learning communities throughout the state, and Chris, with experience in implementing distance learning using technology, were called in to see the dean last year. She had an offer they couldn't refuse.

What she told them was that they had received funding as one of ten model programs across the country that would use technology to improve collaborative learning. She said, "We can leverage that money with matching equipment funds from Intel if we can pilot a successful demonstration class. And I'm confident that you two are the best team for this project. With your strong backgrounds in history, humanities and biology and your expertise in collaborative learning and technology, we'll show them how to really teach content using the latest in computer technology. It will put us on the map! And, think of what it'll do for our distance learning program! We'll have foundations from around the country knocking on our door!"

The dean's enthusiasm was persuasive, and the two agreed to work together. The planning for the program had gone well, but now in the fifth week of the quarter, storm clouds were gathering.

"Criminey" grumbled Chris, the keyboard echoing a rapid beat. "I sure hope Lee checks E-mail today." Last week there had been no answer to any of Chris's E-mail or voice messages; Lee claimed to be too busy to check them. "How can anyone live without these things?" Chris mused. "We'll have to run through this idea soon, because I'm sure I'll need to spend time showing Lee how to do it."

It was amazing how difficult it was for some faculty to learn how to use computers. Chris didn't understand why Lee was so reluctant to try new things, claiming that the core content was suffering. Chris laughed, thinking of the dire predictions of the mathematicians, when calculators started replacing slide rules. Chris thought, however, that the root of Lee's reluctance stemmed from fear of appearing dumb, or novice, in front of the increasingly tech-sophisticated students. The students were getting the content, but just in a different way! Chris knew that a high-tech interdisciplinary learning community would be a jewel in the university's Virtual College efforts and whether Lee liked it or not, this was where the money train was heading. "We'd better figure out how to manage this," Chris thought, "before it manages us."

<sup>1</sup> Lee and Chris are teaching a ten-credit hour program for first-year students called, "The Changing Human Image: Our Roots in Community and our Technological Future." Chris's content areas are history and literature; Lee's academic work has been in the sciences. The program also includes a writing component.

Chris decided to call Lee's office number again, pleasantly surprised this time to hear a live voice. Chris excitedly described an idea to increase the collaboration among the student teams. Earlier, Chris had checked with the computer support staff about some groupware that seemed straightforward and highly beneficial for the class as a whole. Chris started outlining a plan to get the class and the faculty team up to speed, but then stopped, sensing rising agitation on Lee's part.

Lee seized the pause and jumped in. "I don't want to do that, Chris. We're already behind in the content, and, frankly, I'm putting way too much time and effort into this technology that's supposed to save time and increase efficiency. Gosh, I'm wiped out before I even hit the classroom! I'm spending an hour every morning just reading E-mail, half of it from students who don't attend class regularly and want to catch up. They can't read the books I've assigned but they can spend hours surfing the Net and participating in chat rooms. We're not doing any more, period." Down slammed the phone.

Stunned at the anger and frustration in Lee's voice, Chris leaned over the desk, head in hands, wondering what went wrong. It felt like such a great idea to team teach this class together, at the time anyway.

Lee was furious. Another training session? C'mon! As if we haven't spent all our time in front of the computer since the quarter began. What is it that they need to know anyway? Next week is mid-quarter, and we've barely covered a third of what I would have if I had been doing my usual.

Lee knew that the technology was coming down whether or not anyone liked it. But how does it impact learning? How does it change teaching? These were questions Lee wanted to grapple with, but the technology was moving too fast. To Lee, the emphasis seemed to be on learning technological gymnastic tricks. There was grammar software that demanded sophisticated language skills just to get into the program, then asked students to identify the correct verb tense. What was the point of it? How was it better than a low-tech handout?

This case was written by Gary Brown (Washington State University), Rochelle dela Cruz (Seattle Central Community College), Jeanine Elliott (Washington Center) and Porsche Everson (The Evergreen State College) as part of a Washington Center project addressing faculty issues relating to technology. It may be reproduced for use if acknowledgment of its source is given. For more information about this case or about the Washington Center Casebook on Collaborative Teaching and Learning, contact Jeanine Elliott, Director, Washington Center for Improving the Quality of Undergraduate Education, L2211, The Evergreen State College, Olympia, WA 98505, 360/866-6000, ext. 6609. E-mail: [elliottj@elwha.evergreen.edu](mailto:elliottj@elwha.evergreen.edu) 3/7/97

And the limitations were enormous. Lee remembered library research from days gone by, where perusing the dusty journal shelves yielded not only the abstract, but also the whole article, which often pointed to others in the bibliography. Now, the terminals in the library spewed out abstracts only, with a \$3 charge to retrieve the whole article. What if you decided you didn't need it after looking at it? Could you send it back for a refund? Lee spent all that time learning the intricacies of the electronic library menu and search system, and for what in return?

It was equally annoying to see how colleagues often acted as if computers ruled the world. At a recent workshop on creating Web pages, Lee watched other faculty panic as one finger slip caused a screen to light up with a flashing FATAL ERROR! FATAL ERROR! warning. There were gasps and everyone froze in their seats until Lee stepped up. "Fatal error my foot. See this finger? See that button? Turn the damn thing off." Why were highly educated professionals reduced to milquetoasts when confronted by a mere machine?

So now Lee and Chris were collaborating to create this learning community where students and teachers make multimedia and interact on the Web using materials from the program content. Chris seemed to feel that they would learn history this way, but Lee worried that they couldn't learn the rich methods of scientific inquiry by playing around with the computer. Lee had agreed, of course, to spend the summer learning all the computer tools they were going to use. OK, so maybe Lee didn't make it to every workshop but there were more compelling ways to spend summer days. Yet here they were, in the middle of the quarter, and Chris hadn't even read the books that Lee had selected as part of the program.

"Some collaboration," mumbled Lee. "I run myself ragged trying to keep up with Chris's choices and I barely maintain some level of research; Chris just dinks away time trying out every single new software widget. If I had all that time...." Sigh. ■

### WHAT ARE THE ISSUES CONFRONTING CHRIS AND LEE?

- Given a chance to speak freely, how would Chris identify the problems the team faced?
- What are some of the roadblocks to success for this team? For Chris? For Lee?
- What does Chris have to give up to find time for learning technology?
- What would Lee have to say about learning and using technology in the classroom?

### WHAT WOULD YOU RECOMMEND AS POTENTIAL SOLUTIONS?

- What can Lee and Chris do to salvage the class and their collaboration?
- What learning techniques are employed by the faculty in this story? Are they successful?
- How can Chris and Lee manage the sometimes competing demands of content and technology in their professional careers?
- Are there solutions that Chris and Lee can implement individually, to enhance their success and quality of life?
- What role should the institution take to address the challenges faced by faculty learning about technology?

### ANALYSIS AND BEYOND

- Are there fundamental differences in learning styles between Lee and Chris?
- This struggle must have some impact on their students. What would a student in the class have to say at this point?
- Whose responsibility is it to ensure that faculty are technologically literate?
- If this case study typifies situations at your college or university, what can you apply from this discussion to similar problems faced at your institution?
- What are the forces that are pushing Chris and Lee to integrate technology into their teaching, and thus to learn about technology themselves? Is this good? Who benefits? Are they happy and satisfied?

### OTHER ISSUES TO PONDER

- Technology training has vaulted to the forefront (along with infrastructure and cost) of the discussion, usually subordinating pedagogy. To what extent does our whole approach to "training" influence that subordination? How might the learning of technologies be more seamlessly integrated into faculty work?
- The learning communities sketched out in this case suggest a particular pedagogy and theory of learning. Is it reasonable to believe asynchronous and virtual collaboration will preserve the values of learning community pedagogies?
- Much is made of the virtues of asynchronous learning. To what extent are traditional lecture-based courses already asynchronous? After all, doesn't most learning happen after the lecture when students cram for exams?
- The purported virtue of technology-rich learning environments is attributed to the power of visuals — images, animations, video clips, and morphs. Is this a valid assumption? How do we know? Why is it that there is very little evidence of significant learning from television, regardless of program content? Why do we believe new technologies will change this?
- Much is also made of learning styles and the great potential for technology to provide students with individualized instruction. Yet assessment of learning styles is frequently context specific or so closely correlated with achievement that the measures are redundant. In this light, how do we approach the potential or promise of individualization often associated with new technologies?

*Faculty as Learners: A Case Study*

# Technology and the Quality of Academic Work and Life: A Case Study on Faculty as Learners

Cases that members of the Washington Center have been writing and field testing are different from cases in law or medicine. The purpose of the Washington Center cases is to encourage conversations about issues in education which uncover insights about teaching and learning. These cases can be used with faculty and administrators, sometimes with students, resulting in various interpretations due to perspective. Consequently, our cases have no “correct” answer; however, over the past five years, we have experimented and developed a sequence in working the cases which seems to be helpful in guiding the discussion around teaching and learning.



Working with large pads is a great way to help groups focus, especially on hard issues.

## Notes for Facilitators:

Before beginning, each group should identify a notetaker who will then report to the larger group on issues which were uncovered. After distributing and reading a case, small groups seem to work best when discussing focused questions. After each question, the group reports to the larger group before returning to small groups to take on the next question. This ensures that everyone benefits from all the small group discussions. The questions to begin with are these:

- a. What are the issues?
- b. Who are the players in the case?

After identifying the main characters, have the groups spend time looking at the issues from each player's perspective. If a group enjoys role-playing, it could be useful to try that here (although it could result in some stereotyping). The first two questions set up discussion of the third:

- c. What are some options or solutions?

Be mindful that groups don't try to jump to this step at the beginning with the first question of issues. Most of us are problem-solvers who want to begin to “solve” the “problem” before engaging in a deeper discussion of issues and players.

Sometimes we try to identify the “best” option from our list at the close of our discussion.

Other things to consider as you prepare to facilitate a case:

1. What is your style of facilitating? Do you like to participate in small groups, roving the floor or do you prefer to leave groups alone until the reporting out?
2. When you're listing what a group is reporting, is it verbatim or do you interpret?
3. Is it important to guide the conversation so that groups end up where you're at or would you rather groups go where they will?

What difference do any of the above make?

And finally, when facilitating a case, be sure to allow enough time. We think a two-hour time slot is the minimum for a rich discussion of the first three questions.

# The New Frontier: On-line Interdisciplinary Studies Courses

Jan Strever and Lynn West  
Spokane Community College

During the academic year 1996-97, Spokane Community College (SCC) piloted on-line English composition and literature classes. In fall quarter, we offered Beginning English Composition 101; in winter quarter, we offered Advanced English Composition 201; and in spring quarter, we offered an interdisciplinary course entitled "Telling Our Own Stories," which paired English 101 or 201 and Introduction to Literature.

In reflecting on the development of these courses, we found a marked similarity to developing our first Interdisciplinary Studies Programs (IDS) at Spokane Community College in 1989-90. Both programs were the result of extensive research, collaborative curriculum development, administrative support, seed grant money, and a period of growth and experimentation. As part of the state technology incentive grant money at SCC and with the support of the Dean of Liberal Arts, Shirley Hauck, our pilot of English classes on the Internet began. Following a similar inception, the IDS programs have now become established offerings in our curriculum, and we expect our on-line classes will continue to develop. However, predicting the evolution of on-line classes whether paired or stand-alone is difficult because of rapid advances (and problems with) technology.

Despite the challenges of fast-paced technological changes, we began. Many of the positive factors outlined in research matched our rationale for developing the curriculum: on-line instruction is potentially a new medium for reading and writing, a platform for increased communication and collaboration,



Complicating our thinking about uses of technology, Chet Bower (University of Oregon) led a seminar on the non-neutrality of technology that caused quite a stir at the conference.

a classroom without time, place or space limitations, and an opportunity for new student populations. We began knowing the offering of on-line asynchronous composition — that is, English composition utilizing the Internet, E-mail, the World Wide Web, MOOs and other assorted technology is gaining popularity. For example, many teachers see computer-mediated communication as a means to revolutionize "... social and structural changes in the ways people communicate and relate to each other ..." (Spears and Lea, 1994, p. 427). Administrators, too, are jumping on the asynchronous bandwagon.

Since most on-line classes require that students meet only two or three times during the course of a term, students can enroll from virtually anywhere in the world (Gilbert, 1996). Thus if SooWon, a Korean, wants to take an English class, and he meets

the minimum requirements of the college, he registers, pays the (costly out-of-state) tuition, enrolls in the class and is treated as any other student. Virtually, time and space are of no concern. In the virtual classroom, students can work when they want if they have initiative and a computer with a modem. Students with complicated schedules are especially attracted to on-line classes. Single parents balancing work, children and school find the ability to log on at unusual hours is a true advantage. Many students merely want to upgrade skills and cannot leave a nine-to-five job to do so, while others may be high school students getting a running start on college. On-line instructors can monitor the times their students E-mail each other or send attached assignments in for evaluation. It is not unusual to see 2 a.m. or 5 a.m. time stamps at the top of the message.

The role of teacher as facilitator is key to on-line education. In other distance learning formats, such as telecourses, the usual direct relationship between student and teacher is minimal. Conversely, in on-line classes, the student and teacher are continually in direct contact, which creates an informal bond. Constant communication is a must for on-line writing instruction. Students also facilitate each other's learning by on-line discussions on bulletin boards and synchronous discussions in real time. Such discussions often reach a deeper level, generate more interest in research on the subject, and encourage continuance of the discussion for a longer time than would be possible in a 50-minute class. It's not unusual for a thread of discussion to last a week or more. The format of on-line classes allows students to easily continue to interact with faculty members within the virtual boundaries established by the instructor. Virtual office hours can occur at anytime of the day or night.

Even though the theory is interesting and exciting, why would faculty embark on such an adventure? Well, English teachers are often the first to join the cyber-trek because after all, aren't we basically romantics at heart? Year after year, we enter our classes prepared for another Annie Dillard or Barry Lopez, yet more often than not we do not find such jewels. This romanticism led us to on-line instruction. We were well matched in our love of writing and literature and in our complementary skills. In addition, Jan is a Web master; she knows HTML coding and such, making our ideas a reality on the page. Lynn has been involved in many innovative teaching, learning and assessment design projects. Both of us have been faculty advisors of the SCC literary magazine, *Legends*; therefore, we know how to deal with creating beauty out of what is often apparent chaos.

## Reflecting on Trade-Offs

Ann Swanson  
Big Bend Community College

I have been brought into the technological age at warp speed, having both my workspace and home space computers networked. This has led me to question balancing two crucial learning environments: the seminar and computer classrooms.

As teachers, we definitely gain some things and lose others through the use of technology. The key issue is that technology doesn't replace good teaching but simply enhances it. However, technology cannot do the same for bad teaching. Technology gives us the ability to create a more interactive, collaborative learning environment on a broader scale. But this is no easy task. As facilitators, we have the responsibility to suggest that our students question resources and use discernment when gathering information. We also need to work collaboratively ourselves in order to be able to fit together all aspects of these tools for the highest rewards/gains.

One potentially powerful tool is Daedalus Integrated Writing. I think this software supports the interactive and collaborative aspects of the writing process. Understanding the software is relatively simple, but putting it to use in the classroom is a continually evolving process, much like that of writing itself. At least initially, using it takes a great deal more time and energy than writing — is this because writing is familiar, and learning to work in a computer-mediated environment is a new ball of wax?

We have to recognize that the younger generation is as comfortable with computer technology as we were with television. To keep abreast of new developments, we must take risks, integrate these tools into our teaching environment and be facilitators for our students while they learn to collaborate, interact, discern and disseminate information to succeed within their chosen fields to the best of their abilities. Once again, we discover that there is nothing new under the sun, just shorter modes of travel over the paths of discovery.



Marty Manley (Lincoln Elementary School, Olympia) pauses for a moment, thinking perhaps of the common threads that crisscross conversations about technology, regardless of the age of the learner.

We envisioned this paired class, *Writing Our Own Stories* (<http://scc.spokane.cc.wa.us/english>) to be more complex and more multi-textual than the traditional course. We knew the design had to reflect the multi-dimensional aspects. We also had another problem to worry about; to draw more students, we decided to allow them to enroll in only one of the courses. This generated some chaos for us. Organization is a must, and clarity is essential when designing on-line classes. Thus, we were faced with the challenge of ensuring the navigation between the three sites would be seamless, so that the tools we put to use, i.e., E-mail, bulletin boards, the Internet, did not interfere with our purposes of teaching two levels of writing as well as teaching literature to only a portion of the students. Eventually, we decided upon a group of interrelated African graphics which we hoped would reflect the essential nature of being hunters and gatherers in our virtual endeavor. We chose three different colored masks to aid in navigation, so that if a student landed on a page with the yellow mask, she would know she was on the English 201 page; with the red mask, she would know she was on the English 101 page, and with the mask with two red hands, she would be on the Literature page.



Just like E-mail facilitates communication at convenient times, so too do conference coffee breaks. Here, Diane Carter (Grays Harbor Community College), Judy Kjellman (Yakima Valley College) and Dan Samuelson (GHCC) plot a summer workshop on teaching integrated science courses.

We are continually amazed by what can be created through a combination of faculty vision, administrative support and the money to complement both. The small grant we received from the college provided us with some time to plan and experiment as well as attend statewide conferences on distance and on-line learning. These opportunities have helped us build a growing network of other faculty in the state doing similar work. We see this as a current need. Based on our experience with the Washington Center when we began IDS courses, we know the importance of networking as well as faculty development and training opportunities.

What is in the immediate future for on-line classes at SCC? We plan to follow the same pattern of composition classes fall and winter and a true pairing of composition and literature in the spring again next year. In addition, we look forward to improved technological interfaces, expanded opportunities for student discussions on-line and the ability to match these classes with the student population that can best benefit. We know by this time next year new virtual frontiers may confront and confound us, but with continued support and a solid network of other on-line pioneers, we hope to meet those challenges. ■

For more information contact:  
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<http://www.ctc.edu/~jstrever>

# News

Changing Venue: Beginning with this issue, campus news and learning community descriptions will become part of our Web site, rather than appearing here. This is due both to the increasing costs of paper and to our need to keep the information timely. Please send us information about your learning communities, and about important goings-on on your campuses as you gather it, and we will gladly publish it on our Web site or make a link to yours!

## Faculty exchanges

### Meg Tasker

from Ballarat University, Victoria Australia, taught Australian and 19th century literature at Clark College fall quarter 1996.

### Roger Quarterman

from the Canberra Institute of Technology, Canberra, Australia, taught engineering at Clark College fall quarter 1996.

### Dick Duvall

from Clark College, taught English at Ballarat University, Victoria, Australia, fall quarter 1996.

### Ron Ashfield

from Clark College, taught engineering at the Canberra Institute of Technology, Canberra, Australia, fall quarter 1996.

### Paul Marshall

from Everett Community College, taught conversational English in Japan, fall quarter 1996.

### Gilda Sheppard

from Seattle Central Community College, taught in the sociology program at The Evergreen State College Tacoma Campus, fall, winter and spring quarters 1996-97.

### J.T. Stewart

from Seattle Central Community College, taught in the humanities program at Western Washington University's Fairhaven College, fall, winter, and spring quarters 1996-97.

### Zhenjiu Zhang

from Hebei Teachers' College P.R. China (Hebei Province), taught Chinese culture in the humanities program at Peninsula College, winter quarter 1997.

### Steve Olson

from Peninsula College, taught English at Hebei Teachers' College, winter quarter 1997.

If you have news of faculty exchanges, let us know. As we redesign our Web site, we would like to keep an up-to-date list and eventually host a space for campuses to post requests for exchanges both to and from!

## Washington Center Calendar at a Glance

- |                             |   |
|-----------------------------|---|
| <b>December 4-5, 1997</b>   | First Annual Washington Center Congress: Authentic Assessment and Institutional Accountability, Alderbrook Resort near Hoodspott. |
| <b>February 26-28, 1998</b> | Washington Center Annual Congress: Embracing Community, Diversity and Change, SeaTac Marriott.                                    |
| <b>April 23-24, 1998</b>    | Curriculum Planning Retreat: East, Bozarth Conference Center, Spokane.  |
| <b>April 30-May 1, 1998</b> | Curriculum Planning Retreat: West, Rainbow Lodge, North Bend.   |
| <b>May 7-8, 1998</b>        | Deepening Diversity Work Retreat, Dumas Bay Retreat Centre, Federal Way.  |

## Other Conferences of Interest

- |                        |  |
|------------------------|--|
| <b>May 14-15, 1998</b> | Statewide Assessment Conference<br>State Board for Community and Technical Colleges. |
|------------------------|--|

# Mailing List

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Send to: Mailing List, Washington Center, L 2211, The Evergreen State College  
Olympia, WA, 98505, or call (360) 866-6000, ext. 6611.

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## The Washington Center for Improving the Quality of Undergraduate Education

■ Established in 1985 at The Evergreen State College as an inter-institutional consortium, the Center focuses on low-cost, high-yield approaches to educational reform, emphasizing better utilization and sharing of existing resources through collaboration among member institutions. Established with funding from the Exxon and Ford foundations, the Center is now supported by the Washington State Legislature.

■ Includes 46 participating institutions: all of the state's public four-year institutions and community colleges, two technical colleges, one tribal college and ten independent colleges.

■ Supports and coordinates the development of interdisciplinary "learning community" programs, inter-institutional faculty exchanges, curriculum reform initiatives in science, mathematics and cultural pluralism and offers conferences, seminars and technical assistance on effective approaches to teaching and learning.

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