



Confederation of
University Faculty Associations
of British Columbia

Putting Learning Before Technology
A Commentary on the "E-Learning and Beyond" Think Piece

Prepared by
Chris Petter and Robert Clift
for
Campus 2020 - Thinking Ahead

October 30, 2006

This Page Left Intentionally Blank

Table of Contents

About CUFA/BC	5
Acknowledgements	5
Introduction	6
The Past and Future Impact of Technology	6
On Teaching.....	6
On Learning.....	10
Supporting Innovation.....	13
Efficient Use of Technology.....	14
Conclusion	17

This Page Left Intentionally Blank

About CUFA/BC

Founded in 1973, the Confederation of University Faculty Associations of British Columbia (CUFA/BC) represents the professional interests of 4,200 professors, lecturers, instructors, professional librarians and other academic staff at five BC public universities – University of British Columbia (Vancouver and Okanagan campuses), Simon Fraser University (Burnaby, Vancouver and Surrey campuses), University of Victoria, University of Northern British Columbia, and Royal Roads University.

Our purpose is to advocate for a system of publicly-funded advanced education that is of high-quality and broadly accessible. CUFA/BC believes that anyone who can benefit from an advanced education should be able to try and attain that education regardless of economic or social circumstances.

CUFA/BC tries to achieve these goals through conducting educational policy research, developing policy proposals for government, and engaging in public relations activities informing politicians, opinion leaders, the media and the general public of the benefits of advanced education.

CUFA/BC's positions are democratically determined by a Council with representatives from each of the member university faculty associations. The President of CUFA/BC is a faculty member who is seconded from her/his regular duties to serve a two-year term to oversee operations and represent the organization to the public. The Executive Director is a permanent staff member who is responsible for day-to-day operations, including conducting research and carrying out public relations activities. The current Executive Director has over two decades of experience as researcher and advocate in the Canadian advanced education sector.

Acknowledgements

We are indebted to the following people who supplied us with information, ideas and suggestions in response to earlier drafts of this document.

- Dr Kate Seaborne, Manager, Distance Education Services, University of Victoria
- Dr. Carol Gordon, Distance Education Librarian, University of Victoria
- Ms. Mary Sanseverino, Senior Instructor, Department of Computer Science, and Associate Director of IT Development, Learning and Teaching Centre, University of Victoria
- Ms. Teresa Dawson, Director, Learning and Teaching Centre, University of Victoria
- Dr. Martin Petter, Vice-President Education, North Island College

Despite their assistance, any errors or omissions are our responsibility alone.

Introduction

“Technology changes lives every day. Will technology have an even greater impact on learning than in the past? What might that look like? How should we support individuals and institutions to be innovative and responsive to change and opportunity? What are the best ways to support the emergence and adoption of new education models? Can the system be more efficient in its use of technology?”¹

These are the questions raised by the Campus 2020 project none of which, unfortunately, are properly answered by the think piece: “E-Learning and Beyond” by Gerri Sinclair, Milton McClaren, and Michael J. Griffin.² Instead, the authors, like many of the most vocal proponents of e-learning, resemble side-show pitchmen who promise wondrous sights to get you into a tent full of exhibits decidedly insubstantial and unsubstantiated.

As the Campus 2020 question states, e-learning evolves every day. What the think piece fails to acknowledge is that e-learning is already well-located within our institutions, is well coordinated by a provincial network, is expanding according to well-thought-out educational plans, and that the change is happening incrementally according to the usefulness and applicability of the technology to learning objectives.

The purpose of this paper is to offer a critical commentary on the “E-Learning and Beyond” think piece and in doing so, to discuss the development of e-learning in British Columbia and related technologies used to support the educational mission of post-secondary institutions.

The Past and Future Impact of Technology

On Teaching

E-learning has been evolving in BC since the mid 1990’s. Since then many courses and programs have been delivered in BC and much has been learned and written on the topic. One has only to look at former UBC Director of Distance Learning and Technology Dr. Tony Bates’s website (<http://www.tonybates.ca>) to find a plethora of books, articles, websites and other e-learning resources. We believe that any expansion of e-learning to include Web 2.0 or other technologies should begin with Bate’s research and analysis.

In looking at the economics of three e-learning courses in 2002, Bates and Silvia Bartolic concluded that:

“Lastly, the economics of online courses are complex, fascinating and not transparent. Under the right conditions, online learning can not only be cost-effective, but can actually bring in net profits for an educational institution. However, there is no easy money in this business. It has to be earned. This requires quite a different approach to the development and management of teaching. It requires financial systems and financial management that frankly few higher education institutions have in place or are even ready to contemplate. For instance, it requires up-front investment, development of

¹ “Thinking Ahead: Campus 2020 – Symposium Agenda.” 2006. p. 2

² “E-Learning and Beyond.” Gerri Sinclair, Milton McClaren, and Michael J. Griffin. 2006. <http://www.campus2020.ca/EN/413/>

business plans, project management, financial and technical support to faculty, allocation of revenues to those units that take the risk and do the work, and professionalism and a team approach to course development and delivery. Is your institution ready for this? ...

And this is the good side. Limitations to investment in online learning include:

- the need for substantial start-up funds
- the need for additional time for faculty to learn how to use these new technologies and for students to learn to study effectively online
- the need to introduce new administrative and organizational procedures that meet the requirements of online learners
- the need for students to be psychologically ready and financially able to embrace this method of course delivery”³

Another more comprehensive study – “The Use of Technology: Institutional Issues” – was made of 1700 U.S. community college staff by Marilyn Amey and Kim VanDerLinden in 2003. It is interesting to read in the light of the think piece’s billing of Web 2.0 e-learning as a “utopia.” It describes how an observer in 1993 noted that: “technology-supported distance education programs are key applications in which community colleges are leading higher education.” They “exemplify the fundamental elements of a transformation of the teaching and learning process: movement out of the classroom and replacement of the teacher with the independent learner at the center of the teaching and learning process.” The think piece now denigrates that 1993 e-learning technology as “sinister” and takes “particular exception to it.” There is irony indeed in their rejection of yesterday’s transformational technology as sinister while the newest technology constitutes a new paradigm.

The “Use of Technology” study lists some key barriers to incorporating instructional technology. These include:

- “Faculty overload. E-Mail and 24-7 access expectations of students might result in a never-ending job.
- Copyright and release time. Copyright includes courses and ideas; contract release time includes time for development of online courses and for professional development around technology issues.
- Part-time faculty. About ½ of faculty in our public post-secondary institutions are part-time. Their employment status may restrict their access to institutional support for on-line instruction.
- Appropriate reward structures for those who use the technology.
- Obsolete or inadequate hardware and software, inadequate facilities, lack of sufficient professional development money to keep up with technological innovations.”⁴

The study goes on to list the many complex and interconnected institutional issues and concludes:

“What is clear is that rapid changes resulting from technological improvements demand more systematic approaches to faculty development, staff training, technological compatibility/upgrades, and student support services – training, administrative

³ “Investing in Online Learning: Potential Benefits and Limitations.” Silvia Bartolic-Zlomislic and A.W. (Tony) Bates. 1999. <http://www.tonybates.ca/pdf/investing.pdf>. p. 15 & 16

⁴ “The Use of Technology: Institutional Issues.” Marilyn Amey and Kim VanDerLinden. 2003. <http://www2.nea.org/he/healma2k3/images/a03p85.pdf>. p. 87

processes, and student activities – to control costs and provide seamless learning opportunities...”⁵

“Energetic leaders looking to position their institutions effectively in the technology forefront often overlook the key to success: the human resources aspects of change processes. The rapidity with which changes are institutionally accepted and sustained is directly related to how administrators, faculty, staff, and students understand and adjust to these changes. Transition issues encompass faculty willingness to include instructional technology in their classes, the ability of institutional researchers and planners to abandon traditional planning and budgeting models, and managerial recognition that technology requires integration across academic and administrative units. Technology changes may involve tangible hardware needs, revised mission statements, and even the identity and efficacy of campus professionals.”⁶

The authors of the e-learning think piece have ignored this fundamental rule of change management. Instead of basing their prescriptions on any critical analysis of what is working or not working in e-learning in British Columbia they describe what constitutes a catalog of ‘technocrati’ hopes and dreams. They dismiss the present teaching and learning experience:

“Too often the instructor is regarded as the sole director of the learning process, the students as the passive recipients of curriculum, and the technology as a mere accelerator in the transfer of particles of information from book to brain.”⁷

“What can be done to ensure that the education model depicted in the cartoon at the beginning of the paper doesn’t become the current reality with updated technology supporting outmoded teaching and learning practice?”⁸

They go too far particularly when they contemplate in Appendix 2 that a “systematic” training program may be “required” for every faculty member.⁹ We can’t see how this coercive approach will encourage faculty to adopt Web 2.0 technology.

They have pre-supposed that the entire present teaching and learning model is “outmoded”¹⁰ and in need of an immediate improvement. But where is the *a priori* evidence to prove this supposition? Where do they state the learning objectives they are trying to achieve by this? And why do they think that our current learning environment does not support and indeed hinders those learning objectives? Finally and most importantly, how can we know if there is a role for technology to improve the learning environment without answers to these fundamental questions?

The authors also pre-suppose that technology will always lead to a better learning environment. To accept this proposition is to spend tens of millions of dollars on a high tech pig-in-a-poke. However, they take “particular exception to the pervasive model of e-learning.”¹¹ This of course is WEB CT and Blackboard, yesterday’s panacea, which a few years ago was touted as transformational.

⁵ “The Use of Technology: Institutional Issues,” p. 92

⁶ *Ibid*, p. 93

⁷ “E-Learning and Beyond,” p. 4

⁸ *Ibid*, p. 27

⁹ *Ibid*

¹⁰ We note that “outmoded” derives from the French, meaning unfashionable.

¹¹ “E-Learning and Beyond,” p. 4

Our skepticism about the think piece's "magical thinking" is supported by a recent paper by Dr. Frank L Greenagel on "Transformational Learning Connections". He provides some useful statistics about the failure of the last wave of technology. "Dropout rates (defined as failure to complete a course) for e-learning are much higher (70 percent) than for standard instruction in four-year colleges (about 15%)."¹²

The reasons that Greenagel gives for this are very interesting and should make readers of the e-learning think piece suspicious of their claims for the new technology:

"At the heart of the problem lie a couple of factors beyond the unwillingness to insist on measurable outcomes: 1) available technology is driving the instructional strategy, 2) developers don't know anything about how people learn, and 3) a desire to produce courses at the lowest unit cost leads to cutting corners and/or to repurposing of material that wasn't very good to begin with. Absent the chance to network with peers, students find e-learning technologies to be very unforgiving."¹³

As Greenagel points out, the problem has been that the mode of delivery has driven the e-learning model and not the other way around; there has been no effort to measure outcomes rigorously and what measuring has been done has been directed only towards the cost side. From the point of view of improving learning this is backwards. To achieve an improvement in outcomes we should "begin with the objectives, extract competencies required to obtain those objectives, examine the constraints and then outline the kind of learning experiences that will be necessary to develop those competencies." To us the e-learning think piece seems focused entirely on a "new learning paradigm" without any explanation of a "new learning objective."

Further, Greenagel also points to a need for matching the technology to adult learning styles. Like the authors of the think piece on e-learning, he believes that the new IP-based platforms show promise in that they provide sharing and collaboration, messaging and chat systems, presentation systems, and conferencing systems.

"With those capabilities, developers have the ability to create more effective learning experiences by creating communities of online learners who can share experiences, questions, and tentative solutions and generally noodle with a task until they've solved it. They can question the instructor, instead of just listen to him. Technology can offer alternative and complementary ways of approaching a topic: read, listen, observe, discuss, reflect, construct. Simulations may be inexpensively done, supplemented by Instant Messaging and e-mail ..."¹⁴

Nevertheless, Greenagel is skeptical that anything will really change if the development stays in the hands of commercial developers because the tendency will be to develop a learning model that is "cheaper and faster to develop" and "many firms are likely to be reluctant to embrace one platform for one set of tasks and a different one for other instruction, so the availability of a delivery platform is likely to continue to drive the learning model unless management is unusually sophisticated."¹⁵

¹² "The Illusion of e-Learning: Why We Are Missing Out on the Promise of Technology." Frank L. Greenagel. Retrieved October 30, 2006. <http://www.league.org/publication/whitepapers/0802.html>

¹³ *Ibid*

¹⁴ *Ibid*

¹⁵ *Ibid*

His conclusion:

“Increasingly rich delivery platforms are available, at a fraction of the cost of just a few years ago, but a [learner’s] e-learning experiences are mired in a technology that’s not much advanced from the teaching machines of the early 1960s. Developers don’t seem to be aware of how people learn, or if they are, they nevertheless continue to use mostly flawed models of adult learning. For those vendors, that business model may be cost-effective in the short term. Corporations are giddy about the savings the P&L statement is showing, but the hangover will come when they realize that costs have been saved at the expense of competencies.

The technology platform is driving the instructional strategy, warping our focus, which should be on creating an engaging learning experience that reliably contributes to the organization’s objectives. We are going to have to accept the fact that the cost of development of good e-learning courses is high (should that really come as a surprise to anyone?), and that the effectiveness of those courses has to be measured as carefully as one measures cost savings. Only then can e-learning realize its potential...”¹⁶

So not surprisingly, what Greenagel predicts as we move towards 2020 is that:

“Dropout rates for e-learning will continue to be considerably higher than those for traditional instruction. Educational technology has long been seen as promising, but has rarely lived up to the promises. Not because it wasn’t effective, but because it was cumbersome, boring, and did not adapt to the way people wanted to learn. The e-learning industry is in danger of repeating that cycle.”¹⁷

The technology as delivered by vendors in Web CT and Blackboard also did not adapt to the way many faculty wanted to teach. Faculty have largely realized that Web CT is less than the ideal vehicle for on-campus teaching. The conclusion is that unless faculty themselves become convinced that the new technology will improve learning outcomes and are prepared to become the developers, the implementation of the new wave of technology will likely be as unsuccessful as the last one.

On Learning

Another unstated assumption in the think piece is that the democratization of knowledge production and dissemination through the internet is the ultimate goal of using these technologies. Any student of history or political science will tell you that democracy is a great tool for determining the will of the populace, but its record of determining “truth” is pretty spotty. It’s not even clear that the authors believe their own rhetoric because on the one hand they extol the virtues of democratization of knowledge, but on the other hand they say that “experts” will keep the democracy in line.

A large hole in this think piece is how students develop the ability to critically analyze data and theories while they are busy creating their own learning environments. Without considerable outside guidance (dare we say instruction by faculty and librarians), democratized learning environments will simply replicate and reinforce existing knowledge, predisposition and biases. This is more a recipe for reinforcing an intellectual “box” than getting people to think outside of it.

¹⁶ “The Illusion of e-Learning”

¹⁷ *Ibid*

The fundamental problem in using any sort of technology in learning, and this includes the technology of paper, is that once information is “encoded” whether it be a digitized cartoon, like that included in the think piece, or words on a page, it becomes fixed and constrained in such a way that nuance and vitality are lost. This might be overcome the day the technology can deliver a real-time holographic learning commons, but until that day there are considerable limitations in what the technology can deliver.

Moreover, there is a supposition that “experts” will want to spend their days traveling the highways and byways of the Internet looking to fix incorrect facts, and clarify unclear arguments. The truth is that this will always be a sideline for the professional thinkers, researchers and teachers. Consequently, while there may be some islands of sound information and argument, most of cyberspace will remain a sea of dreck.

Another grave oversight of the think piece is that it neglects to comment on the critical role that librarians will play if Web 2.0 e-learning is to be a success. Librarians have been the professionals who have taken upon themselves the role of becoming the instructors of “information literacy.” This is the set of critical thinking skills which will allow students to discern, amongst the chaff, the sound information and argument to use in their collaborative papers, learning objects, blogs and wikis. Together with faculty and technologists, librarians will also enable the “information commons” in their libraries which are the logical location where students will go to create their Web 2.0 learning objects.

One of the most exciting ways that librarians can support e-learning is through the provision of virtual reference services – one on one, real time, web-mediated, interactive, and accessible at the point of need. The Online Computer Library Center (OCLC) E-Learning Task Force made the unanimous declaration of the need to implement “easy access to virtual reference services at the point of need.”¹⁸ The BC Provincial “AskAway” academic virtual reference service was recently initiated by BCcampus to serve students, faculty and staff from all the publicly-funded post-secondary institutions in BC.

Other ways in which libraries and librarians support and must continue to support e-learners include being involved in the course development process to ensure there are adequate library resources for planned courses, provision of materials, e-reserve services and virtual tutorials, guides, etc. New technologies like “Elluminate” promise an even richer learning experience for distance learners allowing virtual tutorials, voice over, white board, and icons to cue discussions.

Finally libraries, archives and museums, if properly funded, can do much to provide unique, BC digital content: something that is desperately lacking at the moment. With almost 50% of the Lower Mainland population representing non-white, non-European ethnic groups, it is ridiculous that two attempts by SFU libraries to get a Heritage Canada grant to digitize ethnic newspapers have failed. The think piece implies that many digital resources are already there for students to build learning objects on the Klondike gold rush or about BC aboriginal history. The heritage community in B.C would love to produce BC digital content if they were funded to do so as in Alberta and Ontario.

¹⁸ “Libraries and the Enhancement of E-learning.” OCLC E-Learning Task Force. 2003. <http://www5.oclc.org/downloads/community/elearning.pdf>. p. 12

As the think piece points out libraries can also play a role in maintaining institutional repositories (it doesn't recognize that SFU and UVic are already doing so) to store and make accessible completed faculty and student articles, theses and papers. Moreover, BCcampus is already acting as a repository for faculty learning objects that can be repurposed into new e-learning objects.

So, to return to the question: "will technology have an even greater impact on learning than in the past and if so what might that look like?" Clearly, the increasingly rich delivery platforms for e-learning offer the possibility of a "paradigm shift" in blended courses over the internet.

However, if it is left to vendors to develop these courses then we can expect more of the same – a 70% non-completion rate and a lack of competencies in graduates who learn through those courses. This is because vendors neither understand the different learning styles, nor will they take the time and spend the money to ensure that the courses actually improve outcomes. As a result, if the system were to rely too heavily on commercially delivered software to increase the number of online students while reducing the costs of their education, we might also expect much lower success for the students and much less quality in the degrees and qualifications offered.

If, on the other hand, we encourage and nurture instructors, faculty and librarians to develop courseware using the new open source software there is a good possibility of improved outcomes. This will not come at a reduced cost, but it will improve engagement.

What the e-learning think piece did not spell out, or even imply, is that a new set of rules is required to govern the development of e-learning instruction courseware:

- 1) Ask not what the technology can do for you, ask what you can do with the technology.
- 2) To increase competencies and improve outcomes, systems design and delivery should be based on learning objectives and not on opportunities to use technologies.
- 3) Good e-learning courses need to be developed by the faculty and not by vendors and this will be expensive because they will need to be given the teaching relief to do it and rewards for having innovated or modified the platform.
- 4) Such software may not be transferable to other courses and they may not be scalable.
- 5) E-Learning courses may supplement rather than replace other classroom experience (rather like lab classes in the sciences).
- 6) The best hope for cost savings will be in lower level science and technology courses where there are more standard curricula and standard tests can reveal weak learners who can benefit from online tutorials enabled by instructors. Carl Wieman's think piece points the way for such a strategy.¹⁹
- 7) Students need to be taught information literacy skills by librarians and need to be encouraged to build their learning objects in the library's information commons. Distance students need to be taught information literacy through a

¹⁹ "A new model for post-secondary education, the Optimized University." Carl Wieman. 2006. <http://www.campus2020.ca/EN/415/>

- virtual information commons. They also need to be supported in an array of students services geared to learning in an online environment.
- 8) The institutions need to have policies and procedures with respect to intellectual property. This means not only clear practices respecting copyright (e.g. that if the institution duplicates materials for instructional purposes that it will obtain the necessary Access Copyright licenses to do so), but also clear policies protecting the intellectual work of students, and providing for equitable sharing of the proceeds from the commercial use of intellectual property created by faculty members in the course of their employment with the institution.

Only if these guidelines are followed, and if support is given to the present infrastructure, do we have any confidence that the promise of a new learning paradigm, E-Learning 2.0, described in the Campus 2020 think piece has a chance of becoming a reality in British Columbia. Otherwise, with commercial software all we can expect that e-learning will offer is more of the same but at a higher and higher cost with less and less positive outcomes.

Supporting Innovation

How is support for individuals and institutions to be technologically innovative presently organized in BC? According to the BCcampus website (<http://www.bccampus.ca/EducatorServices.htm>) :

“BCcampus is an online service provider connecting students and educators to programs and resources across all public post-secondary institutions in BC. Through BCcampus educators can:

- access development funds for creating online learning resources
 - contribute and discover reusable online learning resources through a Shareable Online Learning Resources (SOL*R) repository
 - find and participate in education technology professional development activities
 - network with colleagues across the system and share best practices through communities of practice
 - get support for delivery of online learning
- The following values guide BCcampus in its work:
- inter-institutional collaborative and effective working partnerships
 - a learner-centred model for learning and teaching services
 - excellence, innovation, and continual improvement
 - recognition that the role of post-secondary education, skills training, research, and development contributes to a successful BC economy
 - lifelong learning opportunities for all British Columbians
 - increased choice for learning by using technology”

What, we ask, is wrong with the present method of delivery through BCcampus?

Realistically, institutions and faculty will only adopt Web 2.0 technologies if they think that it is imperative to use them to improve learning outcomes. At present, there is absolutely no data and little in the way of anecdote to support the e-learning think piece’s argument that it is imperative to adopt this technology. Technology changes everyday. Web CT was all the fashion a year or two ago and is still the dominant method of delivery. Now no-one speaks well

of it in spite of the huge investment that has already been made in it. Who's to say the same won't be true of the Web 2.0 technologies in a few years.

What we need is an evolutionary approach, a thoughtful blend of technologies for off-campus, distance users and on-campus users. We need to gather and look at raw data derived from parallel sections of classes: one, using and another, not using these technologies. Before we devote substantial effort and resources to developing Web 2.0 resources in BC we need to produce studies that show that there are more substantial learning outcomes by using these technologies. The ideal vehicle to promote this kind of research is still BCcampus which is already providing support to individuals through teaching and learning centres and also networking individuals across the system.

Faculty are presently "divided into two camps: those who are willing to adopt the new technologies and those who are afraid to do so lest they lose what they value" in their traditional teaching model. The same is also true of learners, some of whom do not respond well to on-line learning. This growing "digital divide" is worrisome since it may disenfranchise as many teachers and learners as are empowered and encouraged by it. Altogether the situation demands an approach to analysis, planning and policy making which is careful, consultative and comprehensive. Some technologies may be appropriate in some programs and courses more than others. Ultimately, faculty members are the best judges of what is best for a particular situation.²⁰

A key factor for the encouragement of technology in the classroom is that adequate support and infrastructure is provided to faculty to learn and become proficient with the software. Many institutions, both colleges and universities, have introduced teaching and learning centres where faculty and instructors can learn, can practice and test different learning and teaching tools. In addition, opportunities are provided by institutions in course software, blog, chat and other software that support teaching.

We also need to be able to provide design and technology support to faculty who gravitate towards the use of these technologies so that they become confident of their ability to implement them. We need to take a relaxed but focused look at the reports that come out of these studies, share the results, and allow people to meet and discuss the data. If successful, we can share the results through the teaching and learning centres and through BCcampus. At this point research is the best option to organize ourselves to examine the existing infrastructure, to think about Web 2.0 e-learning services and to allow for the eventual integration of those services.

Efficient Use of Technology

Except, perhaps, in the case of remote users, we believe that in 2020 the classroom will still provide a far better learning environment for most pedagogy. However, attempts should still be made to harness the potential of e-learning to supplement existing coursework where it fits in with learning objectives. The strategy should be to enrich the learning experience rather than to save money.

The e-learning think piece authors propose a number of new institutions in order to establish a "Learning Environment 2.0": "an adult teaching and learning environment in the

²⁰ "The Use of Technology: Institutional Issues," p. 87

Province"; "a web-based Collaborative Learning Gateway"; "an Advice Centre"; "a Personal Learning Planner"; "a Virtual Institute for the Advancement of Learning with a Design resource centre" and "a BC EduCard".²¹ The authors seem to believe that instead of strengthening the already existing infrastructure we need to replace it with new external scaffolding. In our view this would be a totally inappropriate and needless waste of resources. This is mostly because all, or at least most, of the services that the authors think we need already exist.

Forty one programs (1,800 courses) offered by BC public post-secondary institutions have been brought together under the umbrella of BCcampus. This provides learners with a single portal to learn about courses and to get reference services in a recently-initiated virtual reference service, "Ask Away". The courses span occupational, vocational, and academic fields and are provided by a uniform Web CT learning software application, where each learner has a personalized portal account particular to their needs. "Tools such as calendars, discussions, live two-way voice and video chat, as well as instant messaging are available."²² BCcampus assists faculty to get the support they need to provide the courses online including development funds for creating online learning resources. This approach answers what researchers in educational technology describe as the key challenges: "Assisting faculty to integrate this technology into instruction, providing adequate user support, and financial planning."²³ Why not use BCcampus to encourage developers and license promising commercial software for study by the whole BC post secondary system?

When the Open Learning Agency (OLA) was dismantled a few years ago, the advice was to replace it with two agencies: BCcampus and a new university, part of whose mission was to be a new OLA. This was a very sensible plan. We expect that Thompson Rivers University, the new home to the Open University (OLA), will provide leadership as a design resource centre. BCcampus already provides a collaborative learning gateway, an advice centre, a personal planner, support for online course development, networks for colleagues to share best practice and a repository for learning objects. As well, BCcampus has wrestled with the challenges of a "BC Educard." With BCcampus doing a good job in all these areas do we need to dismantle it and replace it with new structure?

Within British Columbia, there is a relatively efficient division of labour between different types of institutions to service a wide range of learners.

- Community colleges offer occupational and vocational programs and university transfer courses, with many offering courses through distance learning;
- the traditional universities offer academic and professional programs, with each offering a significant number courses through distance learning;
- Royal Roads University has a unique mandate to serve older, mid-career learners and combines a short-term intensive face-to-face learning component with on-line delivery;
- university colleges occupy the middle ground, offering full degree programs, university transfer courses, and occupational and vocational programs, a number of which are available online;
- private universities and colleges cater mostly to mature students and to foreign students with vocational goals, such as an MBA, or Traditional Chinese Medicine; some of them offer online course delivery with e-mail interaction with an instructor.

²¹ "E-Learning and Beyond," p. 9 to 12

²² "How Does BCcampus Work?" Retrieved October 30, 2006. <http://www.bccampus.ca/HowWeWork.htm>

²³ "The Use of Technology: Institutional Issues," p. 85

Part of the reason for the differentiation in this picture is demographics. Universities and university colleges cater largely to high school graduates (18-24), who go full-time, who need/want face-to-face pedagogy, more comprehensive students services and mentoring.

In universities, younger students prefer classroom teaching because they find it more academically stimulating and socially valuable. These students prefer to be brought together to learn, to coordinate, and to work together with each other and faculty members. From the faculty point of view, technology is used to “hybridize” teaching, complementing and supplementing, rather than supplanting direct interactions.

According to a UVic faculty member, e-learning technology is used to:

“motivate students to learn more outside classroom and to learn from each other... to contextualize, structure and motivate the class to read.... There are a raft of things that can be done with it, like lab exercises, web-delivered and web marked; multiple choice exercises, drag and drop, recursive learning.... The smart teacher leverages all the technologies – streamed audio, video, power point – to achieve better learning outcomes. Teachers need to constantly evaluate their use of technologies in order to measure the effectiveness of their employment of this mode of delivery.”²⁴

Community colleges, continuing education divisions, private universities and colleges tend to cater more to the part-time, more self-directed, mature learner (24-49) many of whom are already in the workforce. Distance learning is often “blended” or “hybridized” so that learners are brought together for short seminars or courses to supplement their e-learning.

Many students find it hard to make the transition to this mode of learning which is why non-completion is such a challenge. Students also need to learn how to use e-learning software, and faculty members need training and support to deliver courses in this way. In addition, many distance learners are disadvantaged by not being able to afford to purchase a new computer or by not being able to afford, or even get, a broadband connection in their community. The digital divide between those advantaged with technology and those without could grow wider if this were to become the dominant mode of delivery as suggested in the e-learning think piece.

We think that maintaining such a differentiation in the types of institutions and the use of e-learning increases the efficiency of the system overall. In a sense, the learners have decided which mode of delivery they prefer. Therefore, the dominant teaching strategy is not driven by tradition, as the think piece implies, but rather by the market. If e-learning were mandated as the dominant mode of delivery in public institutions, students may well adapt to it, but it would be as insensitive to their needs and desires as requiring primarily face-to-face delivery in all situations.

The BC system is not perfect, however, and within each institutional sector, and across institutional types, there is probably room for more collaboration and networking. For example, in the public universities sector there needs to be better coordination of e-learning between the teaching and learning centres (UBC, SFU, UVic), Humanities Computing at UVic, the Public Knowledge Project at SFU and UBC, the Irving K. Barber Centre at UBC, and the Mearns Learning Centre, planned at UVic. So we would recommend that, instead of building an

²⁴ Personal Communication. October 2006.

entirely new structure, why not provide resources to better link and strengthen established structures to help them to meet the needs of students and educators?

The authors of the E-Learning think piece question:

“whether we will be capable of adapting our current attitudes, policies, priorities and organizations to meet the challenges of a changing context, and so initiate a new learning paradigm for post-secondary education in British Columbia.”²⁵

We think their logic needs to be reversed. Instead we ask whether institutions are capable of creating policies, priorities and organizations to enable faculty and librarians to properly test and analyze the changing technologies to contribute to a new learning paradigm which will increase learning and engagement within post-secondary education in British Columbia.

In our view, and the view of many others working in the field, the main problem in BC is not a lack of understanding or the lack of innovation in educational technology. The problem is rather the lack of resources that would enable faculty to have the time and technical support to create, analyze and report on such innovations. Librarians also need to be better supported in building a digital library to support e-learning, in providing BC content for the digital library, in teaching learners the analytical skills of information literacy, and enabling the information commons both on and offline (such as through the provision of grants to fund digital projects, and BC-wide software licensing agreements).

Conclusion

In the final analysis, efficient and effective use of e-learning and its digital resources can only be properly brought about if properly studied, analyzed and reported on before being implemented on a wide scale. The vehicles and mechanisms are already there to do the job. All that is needed is the policy framework that will free up the human capital within our institutions and prioritize the resources within those institutions to implement the changes once they have been proven to work. As we quoted earlier from Dr. Bates

“it requires up-front investment, development of business plans, project management, financial and technical support to faculty [and librarians], allocation of revenues to those units that take the risk and do the work, and professionalism and a team approach to course development and delivery. Is your institution ready for this?”²⁶

To realize the full potential from e-learning, we offer the following ten suggestions for the BC Government:

- 1) Mandate BCcampus to conduct multi-year studies through teaching and learning centres on whether Web 2.0 technologies can fulfill the promise of a new paradigm outlined in the think piece.
- 2) Through BCcampus and campus teaching and learning centres, distribute more resources to institutions to conduct significant studies of Web 2.0 technologies in the multiplicity of learning environments both on and off campuses.

²⁵ “E-Learning and Beyond,” p. 9

²⁶ “Investing in Online Learning,” p.15 & 16

- 3) Encourage BCcampus, campus teaching and learning centres, and faculty members to conduct action research on new learning technologies and publicize the results of that research.
- 4) Provide BCcampus with the resources to develop a testbed for new learning technologies (they have already begun to sponsor projects for the development of “learning objects”).
- 5) Encourage institutions to collaborate in the development and testing of learning and assessment tools.
- 6) Encourage the academic vice presidents to better support the exploration and testing of Web 2.0 technologies by creating staff positions to steward faculty in the use of such technologies.
- 7) Encourage institutions to combine information technology planning with e-learning planning with a particular emphasis on the impact of Web 2.0 technologies on the information technology infrastructure..
- 8) Encourage institutions to reconfigure and consolidate support services to better support e-learning – for example, bring together e-learning designers, librarians, technology people, developers and programmers to better support all kinds of e-learning.
- 9) Encourage librarians to study, analyze and collect data and publicize the results of studies on the success of info literacy classes, interactive portals, use of online resources, locating full text, use of digitized material, Ask Away services and the virtual classroom package, “Elluminate”.
- 10) Provide resources to BCcampus to license commercial software for testing by faculty and librarians, and funds for heritage institutions to digitize content of interest to BC learners and faculty for use in building e-learning objects.