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ARTICLES

Using a Panel of Experts to Enrich Planning of Distance Education

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Abstract

This article describes the results of a qualitative study of a panel of experts in distance education. The panel was selected to help identify directions for the continuing progress of distance education at a large Canadian comprehensive community college. The results identified a number of issues to address in the development of a distance/distributed learning strategy. Four major themes emerged from the interviews: the effect of new telecommunications technologies, the increasing numbers of and changing characteristics of distance education learners, the needs of faculty, and the many-layered adjustments required in educational institutions. These themes facilitated robust internal college consultations.

Résumé

Cet article décrit les résultats d'une étude qualitative d'un panel d'experts en formation à distance. Le panel a été choisi pour aider l'identification d'orientations pour le progrès continu de la formation à distance dans un grand collège communautaire polyvalent canadien. Les résultats décrivent un bon nombre de questions à aborder lors du développement d'une stratégie d'apprentissage à distance ou distribué. Quatre grands thèmes ont émergés des entrevues : l'effet des nouvelles technologies de communication, le nombre croissant et changeant des caractéristiques des apprenants en formation à distance, les besoins du corps enseignant et les ajustements requis à plusieurs niveaux dans les établissements d'enseignement. Ces thèmes ont suscité de sérieuses consultations internes dans les collèges.

Community and technical colleges have been rethinking and redefining their mission in relation to the changing economic, social, and cultural needs of their communities for some time (Bailey & Averianova, 1999). A major area of challenge and opportunity is distance learning (Bailey, 2002; Dougherty, 2002). Colleges in Canada have adapted their missions to include distance education as a key delivery method (Levin, 2001). For the community college at the center of this study, significant growth in its distance education enrollments and operations had been straining in-

frastructure and other resources. As well, the provincial government had established as a priority the development of alternative postsecondary educational delivery models such as distance delivery to expand the range of opportunities for people. The college needed to respond to its enrollment growth and to address emerging issues. It was time to rethink priorities and to develop a new strategy for distance learning.

To begin this inquiry the college employed a qualitative research approach using a panel of experts to enrich its planning for a new distance learning strategy. The panel of experts involved interviews with selected participants in the province and across Canada. It was a source of knowledge in itself, but the results also evoked internal discussion and debate leading to the elaboration of a new strategy. Bringing knowledge about the future to various constituencies in a postsecondary institution can help in the expression of new ideas, the articulation of conflicting views, and the nonlinear integration of many points of view (Frost, 1998). Much of the knowledge expressed by participants on the panel of experts has been confirmed in the literature. The perspectives of participants helped clarify the complexity and dynamism of the changes in distance education.

Methods

The research process for the panel of experts was a qualitative technique based on an interpretive orientation. This approach focused on understanding the underlying meanings of participants' expressions about distance education, their perspectives, and world views (Merriam, 1998). The intent of the researchers was to gain insight into the future of distance education through the knowledge and experience of selected interviewees and then to apply this to the circumstances in the College. Sampling was purposive (Berg, 2001), and individuals were selected to represent a constituency comprising local business and education leaders, as well as nationally acknowledged experts in distance learning. A personalized letter on official letterhead outlining the nature of the research and indicating that they would be called to arrange an interview time was mailed to all prospective participants. Participants included 15 provincial individuals (4 business leaders, 5 postsecondary education senior administrators, and 6 distance education practitioners). The four business leaders were selected to represent various economic sectors; the senior education administrators were selected to represent both education policy and delivery. The distance education practitioners were selected from the major postsecondary distance education providers in the province. Some of the provincial participants were also active at the national level. In addition, seven national participants were in the sample. These people were recognized leaders in the development, administration, or study of distance education. Four of this latter group were also recognized interna-

tionally as academic experts and expert practitioners in the field of distance education. In all, there were 19 interviews, involving 22 individuals. In two instances more than one person participated in an interview. Ten of the interviews were face-to-face, and nine were conducted by telephone. The interview was standardized and semistructured and followed a predetermined interview schedule with the potential for exploration of topics in detail if the circumstances so determined. The same questions were asked in the same order for all interviews. A copy of the interview protocol is included in the Appendix.

Field notes were taken during the interviews, including verbatim notes of participants' expressions when appropriate. This slowed the conduct of each interview, but allowed for the voices of the panel of experts to be expressed more directly. The interviews were not taped because of the dual interview methods, that is, by face-to-face and by telephone. In addition, some of the participants indicated that they were uneasy with being recorded. The same researcher conducted all but one of the interviews. After each interview the researcher transcribed the field notes. Subsequently, the main interviewer analyzed individual interview transcribed notes to identify clusters of meaning and commonalties as well as divergences. From this a composite of issue categories aligned with the question topics was prepared from all the interviews. As a final stage in the mediation of the interviews, four themes emerged from the composite. This interview summary enumerating the themes was provided to all interviewees for review and changes. No changes were requested. This document was also used internally to initiate discussion and collaboration on developing a strategy through a series of consultation forums with faculty, staff, and administration.

Results

Issues that emerged from the interviews with the participants clustered in general around the question topics. There was consensus on many but not all of the issues.

Current State of Distance Education

Participants agreed that distance education was experiencing tremendous growth. "Near frantic in terms of growth, development and change, the pace is difficult to keep up with," noted one participant. The growth was not uniform across provinces or across institutions. Another participant expressed the state of distance education as, "Whirlwind, confused, promising, all over the map." Growth in distance education using Web-based technologies appeared to be particularly strong. One of the participants expressed it this way: "If education is going to expand and meet the demands of a knowledge society, it needs alternative approaches."

Participants noted a growing overall interest in online delivery from a number of stakeholders, including government. This was true in Canada (Advisory Committee for Online Learning, 2001) and the United States (Web-Based Education Commission, 2000). However, this was tempered with a concern over access due to the digital divide and the need to be conscious of this as new strategies are implemented. The socioeconomic characteristics of the digital divide have been established in Canada (Reddick, 2000) and in the US (National Telecommunications and Information Administration, 1999). Although participants recognized the growth in Internet-based learning, members of the panel also noted a renaissance in self-paced correspondence study. Some participants saw this trend as a reflection of adult learners' need for flexibility.

The panel indicated that a convergence was occurring between distance education and traditional classroom-based education. The convergence was enabled by computer technologies, which have the potential to make barriers of time, pace, and place irrelevant. This was reflected in a shift in terminology as terms like *technology-mediated learning* and broader terminology like *distributed learning* are replacing the designation *distance education.*

The state of distance education in the province of the College was different from that in some other areas of the country. Participants knew the province had a long tradition of using distance education. However, its growth and use of current technologies was behind other jurisdictions by a few years. Some members of the panel thought this was due to distance education in the College being operated on a cost-recovery model. In addition, there was an issue with the allocation of limited expenditures on postsecondary education; as one participant said, "The problem is how to afford 'bricks and mortar' *and* distributed learning."

Although there was consensus about the fact that distance education addressed the education and training needs of various constituent groups, it was noteworthy that even participants who had no knowledge of distance education per se associated the term with Internet or on-line learning. Some traditional businesses in the immediate catchment area of the College were running experimental projects to test and evaluate the efficacy of on-line learning as a component of their staff development offerings. Those who were experienced in the distance education field emphasized the use of appropriate technology. This reflected their concern with the needs of learners and experience with technology and its relative usefulness with certain learner groups, for example, young, inexperienced postsecondary learners and those in isolated northern communities. There was an overall sense of optimism about the role of distance education in increasing access and addressing educational needs. The knowledge

economy was seen as placing a premium on advanced education and lifelong learning delivered in a convenient manner to adult learners.

Methods of Distance Delivery

Participants identified print as the most common method at the present time because it was a proven, highly portable medium for teaching and learning. The general consensus was that print would continue to be a key element for distance delivery in the foreseeable future. Computer-based technologies as a group were currently being used extensively according to participants. Of computer-based technologies, the greatest number of participants saw asynchronous Internet technology being used most frequently. This was because distance education students were largely dispersed geographically and mostly working adults. Asynchronous Internet use accommodated differences in locale and time zones as well as providing flexibility, although synchronous Internet use was sometimes time-consuming and boring for learners if it required a lot of typing and was not specifically project-based. CD-ROM, prerecorded videotapes, and prerecorded audiotapes were seen as useful vehicles for storing support media for students. Tied in with these was teleconferencing, which was still used as a low-cost and fairly accessible medium for providing learner interactivity. E-mail was emerging as a strong medium for submitting assignments and for communicating with instructors. Once again, it provided an element of asynchronicity that addressed the flexibility needs of working adult learners.

Those participants actively involved in the field of distance education reported a strong movement toward the use of Web-based technologies. Web-based technologies are seen as being able to provide multimedia capability and interactivity in a format that is growing in popular use and accessibility. They were cited as having the greatest potential for present and future applications in distance education. Whether used asynchronously or synchronously, the Internet was where distance educators saw future growth and the greatest potential for multimedia development and application to education. One participant noted:

> The Web and e-mail are overtaking all other technologies, even in less technologically developed nations. For example, the Indira Ghandi National Open University in New Delhi is setting up an on-line system intended to reach approximately 800,000 learners in the very near future.

Looking into the future (the 2005-2010 period), all participants thought distance education would be an element in delivering education / training to their constituents and would be increasingly relevant and used. Participants identified several issues of future significance. Most saw distance education becoming less of a separate entity and more of a tool. The dual

phenomena of teachers using distance education in the classroom and of students combining classroom-based and distance education courses to create flexible course loads and schedules were seen as reflecting a shift in perception that would in turn create a shift in demand. The consensus was that both phenomena would continue and would increasingly blur the lines between distance and traditional classroom learning. The development of smart classrooms was noted as a key initiative for the College to integrate technology into education and build distributed learning capacity.

Participants noted that the reach and speed of adoption of Web-based technologies were expanding the boundaries of learning. As technology becomes more and more embedded in society, the phenomenon of technology mediated learning will become less of an external element of education and more of an expectation, an integrated element of postsecondary methodology. The convergence fostered by technology and student demand will play an important role in reconfiguring the traditional boundaries of postsecondary education. Issues related to the permeability of institutional boundaries, credit transfer, and course development and ownership will have to be addressed. Several respondents saw credit brokering as an emergent and growing element of adult education.

Another issue noted by some participants was the potential effect of newer technologies on faculty and the process of teaching. There was a danger in treating distance education delivered through the new methods purely as a product with the teacher solely as the caretaker of the technology. Most participants saw a continuing essential role for faculty with the new technology, even though the specific activities may change and teaching may be more akin to facilitating. One participant put it this way: “The revolution will be in the way we do things, not in the things we do.” An element in the change process is involvement of faculty in planning distance education initiatives from vision to implementation. Critically important was the involvement of all participants in shaping distance education.

Participants noted the need to continue to establish the quality and effectiveness of courses and programs delivered by distance methods through research and the fact that professional faculty are essential for this to work.

Dual-Mode Colleges and Distance Education

The College of this study was a dual-mode institution; participants were asked to express their thoughts on the challenges of this model and the extent to which such a college should focus on distance education. The general consensus was that colleges needed to look at technology-mediated learning as a means of creating access and expanding capacity,

as well as addressing competition and the expectations of students. The most forthright answer came from one participant: “You’ll be dead in the water if you don’t. It is absurd to think of education without a distance education component.”

Some of the discussion involved a number of concerns about the motivations and the implementation of the expansion of distance education. Treating distance education as a “cash cow” could diminish the quality of programs and services provided to distance learners. Failing to recognize that education has a socializing dimension could lead to neglecting the fact that some learners, particularly younger, inexperienced learners, may perform better in a traditional classroom setting. Some noted that distance education or technology-mediated learning may further isolate already isolated learners such as disabled people and residents of rural and remote communities.

Most participants indicated that all support systems needed to be reviewed and changed as colleges plan to increase significantly their distance education capacity. In dual-mode institutions systems have evolved around traditional classroom-based learning and around the needs of the institution, not necessarily the needs of the learner. Participants advocated a number of approaches. Many said that putting all systems on-line and working toward a 24-hours-a-day, seven-days-a-week capability were essential for future success. This needed to be done carefully so that neither the technology nor the systems posed barriers. Another suggested strategy was to use technology to create centralized systems, for example, one registration system for all students whether for distance education, continuing education, or full time on-campus. The underlying message here was to create cost-effective, nonredundant systems that supported learners by offering flexibility and transferability of learning. Moreover, fast, widespread support was required for faculty development and for access to technology.

Overall, participants saw the critical areas for enhancements as (a) student support, (b) faculty support, and (c) network expansion/speed. Student support was seen as critical in any technology-mediated environment, whether that environment was in the classroom or at a distance. Student success depends on the quality of systems put in place and ranges from registration to counseling to learning resources access and beyond. Faculty development was also seen as key in creating movement in the adaptation of technology to learning and in creating the kind of critical mass needed for significant change in the teaching-learning paradigm. Expanding capacity beyond the borders of large centers was seen as a critical element for creating access to and flexibility in learning. This required expanded networks and a faster, more reliable telecommunications infrastructure provincewide, nationwide, and globally.

The College of the 21st Century

The general consensus was that the college of the 21st century may outwardly look the same as the college of the late 20th century. However, traditional institutional boundaries will not exist. Collaboration and building excellence in one's area of strength were seen as central to future modes of operation. A large private-sector presence in the education market was seen as the new *fact of life* for public institutions. Participants saw postsecondary education becoming an increasingly competitive, and quite possibly global, marketplace. Private companies have entered the Internet-based education market over the last few years, and participants predicted this would continue.

Another prevalent expression was that the role of faculty in the teaching-learning relationship will change. Some participants foresaw faculty being less disseminators of knowledge and more guides in the critical assessment and application of knowledge. No participant foresaw faculty being replaced by technology. Rather, they foresaw technology being used to extend the reach of faculty. Generally the panel felt that there will be a transformation of infrastructure as campuses become "smart" and the classroom can be everywhere. The social element of education will continue to be an important component. The focus will be on students as learners no matter how they access learning.

The Distance Education Student of Today and Tomorrow

The composite picture of the typical distance education student described by respondents was a working adult, constrained by time and multiple responsibilities (personal and professional), motivated, hardworking, and discerning. Two important groups were: Northern, often Aboriginal communities, where finances, geography, lower literacy levels, and motivation played a part in people's ability to engage and succeed in distance education; and disabled people who tend to have lower incomes and lower literacy levels. Learners are creating convergence through their educational choices. As one participant observed, "They are combining distance education courses with on-campus courses to get a full course-load. The distance education element gives them the flexibility they need to both work and learn."

Most respondents saw distance education growing with more and a broader range of people accessing it. In a way, the distance education student will become the same as an on-campus student. This notion was linked primarily to three factors: (a) perceived growth in the accessibility, use, and ease of use of technology; (b) the need for continual learning to maintain a career or to create a new career cycle; and (c) time constraints and the need for flexibility. A number of panel members saw postsecondary education becoming more diverse because of the above factors com-

bined with the essentially global nature of Web-based technologies. Related to this was the perception that students will be more sophisticated consumers of technology and the knowledge available through it (particularly the Web) and, therefore, more demanding of education providers. This means that postsecondary institutions need to focus on the needs of students as learners.

Important Factors in Choosing a College

As part of the development of a new distance education strategy, the panel identified factors that contributed to students' college choice. In descending order, the items considered important were work relevance, price and quality, and credentials and status in the marketplace.

All respondents indicated that their constituents wanted training that was relevant to their ability to obtain a job, maintain currency in their job skills, or advance their skills for a future job. One participant said, "Ultimately, nearly everyone trades their skills for a wage." Cost and value for money were cited by a number of respondents as factors important to their constituents. Although credentials are important to distance education students, participants indicated that adult students were discerning in their choices and looked for the type and source of credentials that would add value to their marketability. A participant explained, "They look for a credible institution, one where credit is transferable and where the organization is doing substantive education, not a diploma mill."

A number of other factors were also mentioned, such as flexibility, widely interpreted by one participant as "PLAR [prior learning assessment and recognition], scheduling, choice of program, credit transfer"; student support services including financial support and tutoring; and ease of technology use and accessibility, meaning entrance requirements and delivery methods.

Funding Model for Distance Education

Participants expressed a variety of opinions on the key elements of the funding model needed to support learners and create the structures necessary to expand and enhance distance education capacity. Participants experienced in distance education were cognizant of the costs (especially hidden costs) associated with any technology-mediated learning environment, were knowledgeable about the amount of time and talent required to prepare pedagogically sound distance education or on-line materials, and recognized the need for ongoing faculty professional development. Most indicated the need for some kind of sustained base funding for distance education. How this might be accomplished drew no specific replies. However, several participants indicated that programs should be

compared on their own merit, not on the basis of where the program historically has been funded. For example, one participant noted:

> Within our institution, some programs receive conventional funding, while new distance education programs operate on a cost-recovery model.… it is important to re-think what conventional funding supports and make comparisons instead of continuing what has been. If a program is worthy of being offered, it should be compared to all other programs.

This sentiment epitomized other responses. The idea was that education needs to examine its fundamental processes and deliberately start setting aside funds to create a new teaching-learning paradigm, one that is not so heavily involved in physical structures. Panel members advocated a future vision where postsecondary education was more dispersed and where technology was seen as enabling this dispersal. Three participants suggested a pure market approach with all funding going directly to students who would then make independent decisions about the appropriate provider.

College Investment in Distance Education

Participants encouraged the College to explore and invest in distance learning. Most saw the long-term benefits as both positive and inevitable given the effect of technology and its transformative capacity. Cautions were expressed in the areas of: (a) technology choice, its breadth of application, longevity, and suitability for learners; (b) faculty development, involvement, and reward; (c) building on one's strengths using effective program design and partnering for other programming; (d) addressing issues related to territoriality, credit transfer, and shared credentials consciously and deliberately; and (e) clearly articulating a distance learning strategy. Panel members stated the College should be alert to the role of the private sector in e-learning. Committed leadership, stakeholder buy-in, and effective evaluation of progress were seen as key ingredients in moving toward a distributed learning model. In the end, as one participant said, the key "is to move on a strategy to get wired. Do not worry about every last detail. You'll never do it, if you wait for perfection." Another said, "Stop messing around. Go for it. Never heard of an institution that got into distance education in a big way say it was not a worthwhile experience."

Discussion

Four major themes emerged from the interviews with the panel of experts. The themes represent a clustering of insights around a few key areas. The first theme involved technology and the key role technology played in the evolution of distance learning. At the time of the interviews, print com-

bined with other media represented the primary form of distance education in Canada. However, all interview participants predicted that Internet-based technologies would subsume all other technologies in distributed learning and distance education. A report by the US Department of Education, National Center for Educational Statistics (1999) found that between 1994-1995 and 1997-1998 the percentage of higher education institutions using asynchronous Internet-based technologies nearly tripled in the US. The more experienced distance education participants expressed the need for caution and careful planning before committing to a technology. Participants noted that technology and technology-mediated learning were not cheap, as Fahy (1998) has argued. They also said that technology growth was fueling the need for lifelong learning while it simultaneously reduced the "shelf life" of education and training. Making the wrong technology choice could have serious consequences, and this was one area where not being on the "bleeding" edge of technology was in the College's favor. In the province of study, the digital divide was also evident. It manifested itself as a north-south split and an ethnocultural split as well as the traditional economic divide. The telecommunications infrastructure in the north was not as fast or as reliable as in the south, yet it was up to four times more expensive. Aboriginal people and communities evidenced less access to technology. Three factors converged to have a negative effect on First Nations people: (a) lower employment levels and therefore lower discretionary income; (b) fewer Aboriginal people with postsecondary education compared with the general population; and (c) the north-south split evident in the quality of the telecommunications infrastructure available to isolated northern First Nations communities.

The second major theme focused on enrollments and students. Enrollments in distance education courses were increasing rapidly and were expected to continue to increase as the culture of lifelong learning established itself in the workplace. Between 1994-1995 and 1997-1998 enrollments and the number of course offerings in distance delivery approximately doubled in the US, while from the fall of 1995 to 1997-1998 the percentage of higher education institutions offering distance education courses increased by about one third (US Department of Education, National Center for Educational Statistics, 1999). The age of distance education students was decreasing, and many were combining distance education with classroom instruction to give themselves more flexible schedules and options. Wallace (1996) found a convergence in the characteristics of distance education and on-campus students. Distance education students were increasingly described as motivated, discerning adults with multiple demands on their time and attention. They were looking for flexibility, options, and value for their education dollars. Value had a number of

components: quality of instruction, ease of access to the institution at a time convenient to the learner, relevance to the work environment, and "prestige" associated with an institution or teacher affiliation. Quality assurance and access are emerging as essential elements in the growth of technology-mediated learning. A recent report by Phipps and Merisotis (1999) challenged the current research on the quality of distance education as suffering from design flaws that rendered the results inconclusive. However, Brown and Wack (1999) and Bullen (1999) identified the problems with that report and were not convinced of the postulated defects of studies in distance education. Hope (2001) describes an international movement toward a rethinking of traditional academic quality measures related to distance learning. In a lifelong learning environment, this movement sees equality of access to historically disenfranchised people as a highly regarded attribute (Mason, 1998). The level of rigor being applied to quality assurance in technology-mediated learning is being matched by the tools being provided to purchasers of such learning. The recently launched *Canadian Recommended E-learning Guidelines* (Barker, 2002) provide detailed guidelines against which consumers can evaluate the quality of technology-mediated learning. In this regard, the panel of experts noted that more students recognized the global context of learning and were increasingly looking for providers who met their specific needs. The panel also noted that distance education students needed support services similar to those needed by on-campus students, as Paul (1998) and Stenerson (1998) have emphasized.

The third key theme involved faculty. Faculty needed training and support both in learning to use the technology and in learning to use it as an integral element of teaching and learning. Preparing curriculum materials for face-to-face instruction was not the same as preparing materials for a distance or technology mediated learning environment. Dede (1996) delineated a three-part conceptual framework, including knowledge webs, virtual communities, and shared synthetic environments for the shape of the emerging instructional work in distance learning. Instructional design that recognized and provided for the needs of the learner and that used technology appropriately to meet these needs would be a key element of curriculum development. This required faculty to rethink what they are doing and why. Faculty schedules, incentives, and rewards must reflect the changes associated with a technology-mediated teaching and learning environment. The involvement of faculty in shaping the practice of distance learning was seen as critical. Parisot (1997) has elaborated a consensus-building approach for community colleges. This would help lessen the possibility of having distance education contribute to the commodification of education and diminishing the role of the teacher, as cautioned by Noble (1998).

The fourth theme was the changing role of educational institutions. More private education businesses will develop and compete with publicly funded institutions. Rosenberg (2001) described the e-learning activities of several large companies such as AT&T, Cisco Systems, Dell, IBM, and Prudential. Bullen (2000) noted the recent proliferation of for-profit online educational companies. Administrative issues will arise in the transformation. Sherry (1996) identified a set of management and policy issues as institutions integrate distance education into the fabric of learning relationships, including effects on faculty and administration, changes in infrastructure, and the key role of partnerships. There was a dilemma over credentials. Credentials may cease to be as important as the knowledge itself. On the other hand, highly prestigious colleges may corner the market. Tuinman and Petter (2000) argue that students will have less dependence on specific institutions in the future and that brand recognition will be less important than flexibility. However, if colleges do not recognize a person's specific knowledge and skill attainments, employers will. Adults wanting options and a customized, career-specific education will look for institutions that can facilitate the "bundling" of the sum total of the individual's training and experience into a relevant credential. Strategic partnerships are a key element for the future of postsecondary education. Through strategic partnerships educational institutions can combine their resources to create greater global access for themselves and their students. They can create credit banks, thereby enabling the bundling of distributed learning into relevant credentials.

Related to the fourth theme is the expectation that access to all the avenues of prior learning assessment and recognition (PLAR) will be expected to be part of the education registration process. Education was viewed as important in a global context and technology such as the Internet as enabling easier access to that global environment. In such an environment, PLAR can enable and facilitate the recognition and credentialing of distributed learning.

Conclusion

As a qualitative research method for gathering intelligence related to distance education, using a panel of experts proved to be both informative and predictive. The panel identified a number of key themes that distance education administrators face in planning for the future. An essential element is having an appropriate technological infrastructure and negotiating the funding to achieve and maintain it. In colleges where distance education is based on a cost-recovery model, this can be particularly challenging. If distance education is to be successful, resources need to be identified and secured to provide the infrastructure, as well as supports for distance learners, and for systematic course and program

development. As learners continue to combine on-campus and distance learning, it will become more imperative that these resources be provided.

Recognizing the changing needs of learners and ensuring access and quality will be continuing challenges. Distance learning is global in context. Participants noted that individual postsecondary educational institutions need to reflect on their individual strengths and build programs from their position of strength to be competitive. Integrating distance education into the fabric of the institution was seen by some participants as a means of creating sustainability in a global educational environment. Accessibility can then be addressed by, for example, developing distance-delivered entry and exit courses for existing on-campus programs. Learners can "test-drive" programs, and those who leave early to pursue employment opportunities can finish their programs at a distance at their own pace. This means moving toward a seamless on-campus and distance learning approach that will create stress for educational institutions even as it enables them to be more learner-centered.

Throughout the interviews, panel participants spoke about the continuing essential role of faculty. Technology facilitates the delivery of learning, but it is still the teacher who makes the difference. There will be ongoing challenges in supporting instructional design, in developing appropriate faculty schedules, in measuring student outcomes, and in determining the right incentives, not to mention the growing issue of intellectual property rights in an electronic learning environment.

In a competitive environment, educational institutions will need to find ways to assess and recognize learners' previous learning even if not achieved in a traditional academic environment. As well, institutions will need to look at more articulation arrangements to combine resources and provide the flexibility that adult learners want. Higher education will be more competitive, but participants believed that traditional institutions with proven programs and effective distance delivery methods would be able to continue to meet the educational needs of their markets.

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Appendix
Panel of Experts
Interview Protocol

Explanation to participants: The College is reviewing its Distance Education program to ensure it continues to respond to the needs of learners. An essential part of the review is to talk with people who have an interest, knowledge or connection with education and training in general and Distance Education in particular. We would like your help in putting together a future for Distanced Education at the College that responds to emerging trends. We want to understand the needs of stakeholders so the plan can be responsive and relevant to your needs and interests. The review began with a focus on Distance Education (understood traditionally) but has expanded into Distributed Learning, which is a wider concept. Our discussion today will range over both concepts.

General

1. How would you characterize the current state of evolution of distance education in Manitoba?
2. Is there a role for distance education in addressing the education and training needs of the people you represent?
   Please describe:

Technology

A number of technologies are currently used alone or in combination in distance education. Some examples are: Print, CD ROM, Pre-recorded audiotapes, Computer-aided instruction, Pre-recorded videotapes, interactive multimedia, Teleconferencing, Internet technology (asynchronous),

Two-way video-conferencing, Internet technology (synchronous), One-way videoconferencing, Electronic blackboard, e-mail.

3. Which three (3) do you think are most used and why?
4. If you had to pick 1 or 2 technologies as representing the future of distance education, which one(s) would you pick and why?
5. Looking into the future, let's say the 2005 - 2010 period, do you think distance education will be an element in delivering education / training to your constituents?
6. Describe the significance of the distance education element in providing education / training?

Programming

There are 3 postsecondary institutions in Canada dedicated to distance delivery of educational programs. The remainder of distance education programs and courses are delivered by dual-mode institutions, i.e., colleges or universities which deliver most programs in a campus environment as well as having some distance education capacity, usually as an adjunct to a continuing education division.

7. Do you think dual-mode colleges in Manitoba need to increase their distance education capacity?
   Why?
8. Has distance education the potential to address any of the following issues in Manitoba?
   The need for more diploma graduates
   Technical skills development for the information technology sector
   Technical skills development for the manufacturing sector
   Technical skills development for the transportation sector
   Technical skills development for the agri-business sector
   Accelerated apprenticeship training
   Continuous learning for workforce development
   Increased accessibility to postsecondary education
   Language training for recent immigrants
9. Of these issues, which three (3) would you recommend colleges focus on?
   Why?

Infrastructure

If Manitoba's dual-mode colleges significantly increase their distance education capacity, they may need to alter the way they "do business."

10. What systems would you recommend be changed to better enable the distance learner?
11. What systems need to be enhanced to facilitate a greater distance education capacity?

12. Will the college of the 21st century look the same as today? Describe what you think needs to be different.

Students

13. How would you describe the typical distance education student today?
14. Does that description characterize your constituents as well?
15. What do you think your constituents consider important when choosing a college education?
16. What three (3) things do you think are critical to the people you represent being successful in a distance education program?
    Financial support
    Accessibility
    Faculty support
    Tutoring
    Flexibility
    Ease of technology use
    Work relevant training
17. How would you describe the Distance Education student of tomorrow?

Funding model

18. Given what you have outlined about the needs of your constituents and the future of distance education, what are the key elements of the funding model needed to support your learners and create the structures necessary to expand and enhance Manitoba's distance education capacity?

Distributed learning

The College is exploring the use of the Internet and Web-based technologies as a way of distributing education and training. The idea being considered is that the application of Internet technologies has the potential to enable the college to deliver courses any time, anywhere to anyone.

19. Have you heard of the concept of distributed learning?
    Please elaborate.
20. Do you think there is merit in the concept of distributed learning?
    Please explain.
21. What comes to mind as the pro's and con's of using distributed learning as a means of meeting the education and training needs of your constituents?
22. If you were in a position to guide the college in exploring distributed learning and Web-based technologies, what would you say?