Implementing Distance Learning: Frameworks for Change

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As Distance Learning programs expand at colleges and universities across the country, institutions find themselves grappling with a range of academic and administrative issues. Faculty working conditions, program development, academic oversight and student support services are but a sampling of the conflicts and issues that emerge as Distance Learning programs grow in popularity. In an effort to address these conflicts and the accompanying institutional changes, we will offer a framework for understanding and managing this change process. We also attempt to give insight into the broader issues raised by Distance Learning and propose strategies for developing cross-campus support for Distance Learning programs.

INTRODUCTION

The idea of distance education has existed for many years. With advances in telecommunications and computer technology, new modalities have arisen to enhance the concept of offering an education to anyone, anyplace, at anytime. The concept of delivering course material is shifting from the physical classroom, where all interactions are face-to-face, to the virtual classroom, where direct face-to-face contact between student-teacher and student-student are non-existent (Educom Staff, 1996).

Since 1969 the British Open University has offered undergraduate degrees via a "Virtual Classroom" (Educom Staff, 1996). The California Virtual University, which lists 1000 distance education courses, and the Western Governor's University, a consortium of 18 western states, are both examples of the partnerships being formed to promote distance education as a viable alternative to classroom instruction (Koss-Feder, 1998).

As the use of technology to facilitate and deliver distance courses increases, new challenges emerge for the administration, faculty, staff and students of colleges and universities developing and implementing distance learning programs. Many faculty fear

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distance learning is just a means of reducing their ranks, or a means to solve budget problems (Novek, 1996). Others fear the dehumanization and alienation of students as well as a loss of social and critical thinking skills (Novek, 1996). On the other hand, Swalec (1993) suggests that rather than feeling threatened, faculty should embrace distance learning as a way for more students to access their courses, resulting in a greater intellectual audience and less chance of a course being canceled due to low enrollment.

The case study that follows outlines the numerous issues faced by faculty, staff, students and administration as the university confronts the many change factors that emerge when developing a distance learning program. After outlining the case, the authors suggest the development of strategies for managing change.

CASE STUDY: THE UNIVERSITY OF NEW YORK BUFFALO DISTANCE LEARNING INITIATIVE¹

Over the past three years, the University of New York Buffalo (UNB) has made a substantial capital investment in technology to support the development of Distance Learning courses. Similar to other university leaders across the country, President Johnston sees the need to explore technology options for the facilitation of learning and course delivery. Much of President Johnston's vision regarding Distance Learning has been shaped through his discussions and experience with Dean Milneck and the College of Music. Since the early 1990s the College of Music has used a variety of video-based technologies to enrich the elementary and secondary school classrooms of collaborative school systems in the greater Buffalo area. Initially a cable and microwave based system; the College of Music uses technology to integrate educational components of the College's teacher training program into local classrooms. For several years, this was UNB's primary form of Distance Learning. This began to change in 1996.

In a memo dated June 1, 1996, President Johnston briefly outlined his plans for equipping classrooms across campus with a range of technologies geared to the reception and broadcast of video based courses. In addition, the President's Office committed \$250,000 for the development of three Distance Learning classrooms. Considering the recommendations of Dean Milneck and his staff, the three classrooms were developed across UNB's two campuses. According to the Dean, these classrooms allow faculty to deliver courses to classrooms and conference rooms around the country. "These are state of the art facilities," states Dean Milneck, "this technology allows faculty to control the local and distant classroom with a click of a mouse."

The College of Music is not the only Distance Learning program on the UNB campus. Prior to the development of the College of Music's classrooms, the College of Pure and Applied Science developed a Distance Learning classroom based on a competing interactive television standard. This first classroom was funded by a grant, which assisted the College of Pure and Applied Science in developing a joint degree program with a university in Delaware. The College of Pure and Applied Science also uses their Distance Learning classroom to broadcast graduate level research courses to two other University of New York campuses. Dean Adams of the College of Pure and Applied Science sees Distance Learning as an opportunity to increase student enrollments in science programs with low Full Time Enrollments (FTE's), the President's measure of success and funding for University Colleges and Departments. In addition to the delivery of day school classes via the technology described above, the Extension Programs Division of UNB has developed an Internet-based course delivery program. The OnlineEd program allows working adults to enroll in and complete college courses online, using their home or office PC. OnlineEd was developed and is directed by a relatively new face on campus, Peter Millhouse. Peter works closely with the faculty in his OnlineEd program, providing training and assistance in the development and delivery of the online courses. The growth of the program has been limited, due to the resources required to provide adequate faculty support.

Peter did not gain much support or recognition for the OnlineEd program during his first year on campus. Most technology funding was going to the development of the Distance Learning classrooms described above. However, this has changed during the past six months. Peter was recently elected to co-chair the UNB Technology Advisory Committee. From this position he has been able to share the success of his program in regards to attracting students and supporting faculty training and success. He has also succeeded in gaining the Advisory Committee financial support for a small faculty technology training institute. Peter knows he needs faculty support to grow Distance Learning programs on campus. "I need the Day School faculty," Peter recently told the Dean of Extension Services, "without their support, Distance Learning will be shut down ... the faculty did just that in Maine."

A sense of faculty frustration was evident at a recent Technology Advisory Committee meeting when Mary Hopkins, a faculty member in the English Department, stood up to share her frustration with the Distance Learning classrooms ... "When I teach in a traditional classroom, I walk in and teach. I don't worry about the lighting, camera angle, whiteboard, and document cameras ... and I don't want to worry about those things. I'm a teacher, not a technician." To underscore her frustration, Mary shared an incident in a Distance Learning classroom when the projection lamp burnt out. "Never mind the fact that I didn't know how to fix it, there was no one on campus to call for help." John Smith, a Physics professor at UNB, joined in, "What is the point of spending all this money on technology? Has anyone asked if it enhances the students' learning?"

While the number of Distance Learning courses offered at UNB has increased over the past two years, most Distance Learning faculty are the typical early adopters. Faculty innovators such as Jason Wilson are eager to try new ideas and willing to take risks, though not necessarily well-connected to the faculty mainstream (Rogers, 1971). Professor Wilson has been teaching a science course via Distance Learning for the past two years. He was instrumental in securing funding for the College of Pure and Applied Sciences first Distance Learning classroom. However, the lack of a directed recruitment, training and support effort geared towards providing faculty with the skills required to use this new technology is still lacking on campus.

Despite the President's memorandum regarding plans for equipping classrooms with various technologies, UNB still lacks a plan or statement to guide the deployment of instructional technology and the recruitment, development and support of faculty to utilize these new technologies. This is not to say that issues go entirely unnoticed. In fact several committees and councils on-campus are attempting to fill in and provide direction. These include the Technology Advisory Committee, led by Peter Millhouse and the Technology Steering Council, chaired by Dean Milneck of the College of Music. However, none of these groups is clearly authorized to provide direction, vision or strategy. Instead,

competing interests and technologies vie for funding with sympathetic deans, the provost and vice-president.

While UNB experiments with a variety of technologies with limited planning and development, the entire University of New York Directorate Office, through the Information Infrastructure Council (IIC), is moving to establish Distance Learning policy, procedures and a common Distance Learning technology across the seven campuses in the University of New York system. Adam Robertson, a computer lab manager for the College of Pure and Applied Sciences, is the UNB representative on the IIC. Adam has little to no experience with Distance Learning, he is primarily a computer technician.

For the past nine months, Adam has worked with colleagues on the IIC to draft and promote Distance Learning policies and procedures for the entire University of New York system. At the same time, Adam and his colleagues on the IIC have developed a 2 million-dollar proposal, sanctioned by the President's Office, for the development of Distance Learning technologies on each of the University campuses.

At the last IIC meeting, Adam was asked to share a copy of the Distance Learning Policies and Procedures manual with his Vice Chancellor and the Deans at UNB for their approval. It was made clear to Adam and other IIC members that the University Director expected the draft Distance Learning Policies and Procedures manual to be reviewed and approved quickly by the system campuses. "We need to get this done," exclaimed Taryn Samson, the Chair of the IIC and a Director's Office staff member. "The legislature has approved the money for technology implementation, we simply need to approve the document proposal ... if the campuses can't develop a vision and plan, we'll do it for them."

Adam returned to campus and set up a meeting with the Vice Chancellor. He shared a copy of the draft Policies and Procedures with Peter Millhouse, prior to his meeting with the Vice Chancellor. Peter was very concerned about restricting the money expenditures to only equipment purchases. "What about training the faculty? What about support?" asked Peter, "Who is going to put faculty and students in these classrooms?" "Frankly, Adam, has anyone even asked faculty if they are interested in teaching distance courses?" "Relax, Peter, it's not your money anyhow, it's how they want to spend it," replied Adam. "I don't care how they want to spend it, the fact is nobody is involving faculty in these decisions," said Peter. "Peter, if you're so concerned about this, why don't you come to my meeting with the Vice Chancellor" invited Adam.

The meeting was scheduled for next Thursday afternoon. Peter reviewed the draft document Adam had provided him. Realizing the document in no way addressed faculty training, faculty support, student services and a multitude of relevant issues, Peter prepared to meet with the Vice Chancellor to argue the need to create a campus vision that focuses on what technology contributes to education, rather than defining what technology we'll use. With this in mind, Peter set out to meet with Adam and the Vice Chancellor.

ANALYSIS

The following learning points will be developed in this section: (a) the primary or central problem; (b) identification of secondary problems; and (c) a number of frameworks which focus on effective change and how this case does or does not fit within them. The central problem in this case is that technology is being deployed across the UNB campus and the

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University system (a) without an appreciation of the magnitude of change that Distance Learning holds for the University and higher education and (b) without acknowledgment of the need for organizational discussion, development and planning. UNB and the University system have embarked on an ambitious program to implement various Distance Learning technologies across campuses without thoughtful consideration of how technology contributes to learning and without the proper development of campus constituents and vision.

The apparent lack of appreciation of the magnitude of change that Distance Learning brings to the University is evidenced by the very limited discussions that focus on what technology to purchase (e.g., between Dean Milneck and the President, Peter's review of the Distance Learning Policies and Procedures draft) and by the lack of constituent discussions regarding the impact of Distance Learning technology on education at UNB. Mark Emmert, President and Provost for University Affairs at the University of Connecticut predicts, "technology-based education — by reducing or eliminating geographic and temporal barriers — will open up higher education markets to new global competitors... They provide extraordinary opportunities to transform the when, where and how of what we teach. But they also have the potential to dramatically alter the nature of the higher education will be transformed by Distance Learning technology, the fact is that these technologies are currently changing how, where and when teachers teach and students learn.

Through both Peter's and the faculty's comments it is apparent that neither the UNB campus nor the system has developed a vision nor a plan that acknowledges the impact the introduction of Distance Learning technology will have on teaching at the institution. Instead, administrations, campus and system, have implemented a top – down mandated approach. Peter senses the need for a discussion of the broader ramifications of the use of Distance Learning technology when he argues for the need to create a campus vision that focuses on what technology contributes to education, rather than defining what technology we'll use. However, there is no evidence that this discussion has occurred at the campus or system level.

The lack of involvement of constituents at UNB is evidenced in the memo sent by President Johnston outlining his plans for equipping classrooms across campus with video based technologies. Except for input from Dean Milneck, there is no mention of faculty, staff and students being involved in the decision process. This same top-down mandated approach is also apparent at the system wide level, as noted from the system IIC's demand to have the Distance Learning Policies and Procedures approved quickly. As stated by Taryn Samson from the Director's Office, "... if the campuses can't develop a vision and plan, we'll do it for them." This approach to implementing a technology loaded with implications for changing the nature of teaching and higher education is fraught with pitfalls.

Swalec (1993) reminds us that, "Faculty are critical spokespersons for telecommunications-based delivery systems. The message they convey to the students we are trying to serve can greatly effect the utilization of this medium for instruction. Involving faculty in the entire process can not be overlooked." (Swalec, 1993, p. 4). Perhaps Fullan states it even more clearly when he points out "You Can't Mandate What Matters (The more complex the change the less you can force it)" (Fullan, 1993, p. 21).

The administration's push to put technology in place without considering all the ramifications is not necessarily an uncommon one. Swalec (1993) states: "In the design and development of telecommunications-based instructional delivery systems, the focus is too often limited to the technology. Any attention to faculty involvement and training is often overlooked until the system is operational. Since the primary user of the telecommunications network is teacher, it is important that faculty have input in the earliest stages of network design and implementation." (Swalec, 1993, p. 1). Verduin and Clark state, "Successful distance education programs ... demand effective organization and administration." (Verduin & Clark, 1991, p. 166). They argue for the development of effective organizational plans as well as administrative structures to implement those plans. Finally, Verduin and Clark add, "Effective communication will help all organizations and administrative designs become more successful." (Verduin & Clark, 1991, p. 166).

Secondary, but no less important, problems are evidenced by the focus on selecting and funding technology, without concomitant funding for faculty training and support. As Peter points out, there is no money for faculty training or support in the System plan, nor is any mention made of funding for faculty training and support in the Distance Learning classrooms memo written by President Johnston. Frustration with this lack of support is related through Mary Hopkin's comments at the Technology Advisory Committee meeting. This lack of funding for training and technical support could very well alienate the faculty the Distance Learning programs need to succeed. The necessity of involving and supporting faculty is made plain from Peter's discussions with the Dean of Extension Services when he states "I need the Day School faculty, without their support, Distance learning will be shut down ... the faculty did just that in Maine."

Verduin and Clark (1991) detail five dimensions of Distance Learning programs that must be considered before the implementation of Distance Learning courses. These include the organizational model for distance course delivery (e.g., Institution Centered, Student Centered, Society Centered), the institution's philosophy, administration of the distance program (e.g., development, training, student services, administrative function), the communication model (How will administrators, faculty and students communicate?), and an evaluation model. Without prescribing a specific model for success, Verduin and Clark state "Whatever mode is used to administer and carry out the distance education program, adequate funding, staffing, control, and freedom must be present to ensure a successful effort. Autonomy and authority are critical to the success of distance education programs." (Verduin & Clark, 1991, p. 195).

While there are councils and committees on the UNB campus composed of faculty and staff that are attempting to address some of these problems, they do not have the autonomy or authority needed to address these issues and effect change on the UNB campus. As Kotter (1996) points out in his chapter on creating guiding coalitions for change, it is imperative that the coalition or team has the support and participation of respected leaders and managers or the change effort will fail (Kotter, 1996, p. 57). Willis (1992) states "To be effective distance education requires the integrated efforts of several participant groups, including students, faculty, facilitators, support staff and administrators." He goes on to state "... the absence or under-involvement of a critical participant group can dilute or derail the integrated efforts of the others" (Willis, 1992, p. 35). In order to address the conflicts that inevitably emerge because of the changes presented by Distance Learning technology, the institution must embark on a process that: (a) involves all constituent groups; (b) examines the impact of change throughout the institution; (c) develops and communicates a vision that describes where the institution plans to be in relation to this change in the future.

Implementing a change process in a public institution of higher education is a complex process due to the range of constituents and factors involved in the process. Administrators, faculty, students, parents, legislators, technology, economic conditions, etc., all have an impact on the who, what, when, where and how of teaching in higher education. Despite the complexity, the literature offers several frameworks on which to stage the change process. In his book "Change Forces," Michael Fullan (1993) shares "Eight Basic Lessons of the New Paradigm of Change" (Fullan, 1993, p. 21–22). These eight lessons provide guidelines for developing the change process. Fullan reminds us that the lessons "go together as a set, as no one lesson by itself would be useful." (Fullan, 1993, p. 21). If one keeps this in mind, these eight lessons offer wisdom in developing dynamic relationships while guiding change. We will take each of Fullan's eight lessons and discuss how they apply to this case study.

1. You Can't Mandate What Matters (Fullan, 1993, p. 22–24) — The administration's efforts to mandate Distance Learning policies and technology, is likely to fail without the support of staff, faculty and students. In order to implement change, people must understand the importance and urgency of the situation.

2. Change is a Journey, Not a Blueprint (Fullan, 1993, p. 24-25) — It is not clear as to what the future holds in regards to Distance Learning and higher education, there is uncertainty for all constituents in the future. Since no one person knows what the future offers, no one blueprint is likely to succeed. Accepting this uncertainty, working with others, moving forward is critical to success.

3. Problems are our Friends (Fullan, 1993, p. 25–28) — Problems are inevitable as we embrace change, learn from them. In regards to Distance Learning, there are many difficult issues to address (e.g., Faculty Workload, Copyright, Division of Resources). The University cannot hide from these problems, so address them and learn in the process.

4. Vision and Strategic Planning Come Later (Fullan, 1993, p. 28–33) — Fullan acknowledges the importance of vision in relation to change, however shared vision is the result of interaction between constituent groups. Vision should not be mandated.

5. Individualism and Collectivism Must Have Equal Power (Fullan, 1993, p. 33–36) — Fullan suggests a balance between individual leaders and groupthink. Related to Lesson 2, the danger in following one bright, charismatic leader is he or she may be wrong. On the other hand, tight-knit groups tend towards stasis, potentially new and invigorating ideas may be stifled by group think. Balance is in order.

6. Neither Centralization or Decentralization Works (Fullan, 1993, p. 37–38) — There needs to be a balance between over-control, which stifles innovation, and anarchy, which may prevent the achievement and acculturation of important change goals.

7. Connection with the Wider Environment is Critical (Fullan, 1993, p. 38-39) — In some ways, the Distance Learning technology itself forces this issue. It is already evident in the pressure on the campus to collaborate with the entire system. Similarly, President Emmert's (1997) comments regarding the elimination of geographic or time-based barriers to higher education offers impetus to connect with the wider environment.

8. Every Person is a Change Agent (Fullan, 1993, p. 39-40) — In order for an organization's change process to succeed, every person in the organization must participate in the process.

Keeping these lessons in mind, we move to an eight-stage process for creating change. Based on his experience working with various organizations and companies around the world, John Kotter offers a sequenced, multi-stage process for creating change (Kotter, 1996, p. 21). Kotter's stages are meant to be implemented in sequence. Stages 1-4 are constituent building activities, if one skips these stages and rushes to implementation, change is sabotaged by not building broad-based support. Stages 5, 6, 7 address the transformation process while stage 8 embeds the change process into the culture of an organization. Lets look at how Kotter's eight stages can be applied to this case study. Kotter's stages are:

Establish A Sense of Urgency (Kotter, 1996, p. 35–50) — There is a sense of urgency at the administrative level for both the system and campus. As referenced by Dean Adams, the need to increase FTE's to insure that courses and programs survive is a key issue of the UNB campus. The system wishes to reduce duplication of courses between campuses, and thus reduce the operating cost of the State University system to the State Government. However, due to a lack of communication with faculty, a shared sense of urgency has not been identified nor developed.

Creating a Guiding Coalition (Kotter, 1996, p. 51-66) — Put together a group with enough power to lead the change effort. At UNB there is the Technology Advisory Committee that Peter leads, which is made up of faculty and technical staff, and there is the Technology Steering Council headed by Dean Milneck. These two groups could be combined and added to with the necessary stake-holders to act as a guiding force.

Developing A Vision And Strategy (Kotter, 1996, p. 67–84) — Create a vision to help direct the change effort, and develop strategies for achieving that vision. Neither of these steps have been implemented at the system level or at UNB. This is a critical problem although Fullan reminds us that vision must be developed and shared by constituent groups affected by change.

Communicating The Change (Kotter, 1996, p. 85–100) — Use all possible means to continually communicate the new vision, and have the guiding coalition role model the behavior expected of the employees. It is apparent that communication to all levels of the institution or the system is lacking in this case. It is also apparent that without a vision or a guiding coalition it is hard for employees to know what is expected of them. Communication must be improved and broadened.

Empowering Broad-Based Action (Kotter, 1996, p. 101–116) — Eliminate obstacles, change systems or structures that undermine the change vision, encourage risk taking and nontraditional ideas, activities, and actions. Once a shared vision is developed the University and system will need to confront systems and structures that prevent or undermine change. In higher education these may include accreditation organizations, faculty unions, campus traditions, and funding mechanisms.

Generating Short-Term Wins (Kotter, 1996, p. 117–130) — At UNB there are wins. The courses offered by Prof. Wilson, the courses offered from Engineering to other universities and their campuses within the system, and the work of the College of Music are all short-term wins. However, UNB has skipped the constituent building phase, where

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the University and system need to generate constituent support, and rushed to implementation. Change will not be effective nor lasting.

Consolidating Gains and Producing More Change (Kotter, 1996, p. 131–144) — One might say that the investment in the three technology classrooms, and additional funding from the system for more classrooms would suffice to address this process. Unfortunately this was not what Kotter had in mind. Kotter sees this as using increased credibility to change systems, structures, etc., that don't fit together or don't fit the change vision. It also means hiring, promoting, and developing people who can implement the change vision, and reinvigorating the process with new projects, themes, and change agents. There is little chance of this becoming a reality as things now stand at UNB and in the system.

Anchoring New Approaches In The Culture (Kotter, 1996, p. 145-158) — At this time, there is nothing to anchor within the cultures of UNB or the system, however, should the University embark on a meaningful change process, the acculturation of the change vision, in this case Distance Learning, may significantly improve the University's ability to respond to future challenges.

Donald Kirkpatrick, in his book "How to Manage Change Effectively," proposes three key steps for successful change (Kirkpatrick, 1985, p. 112–166). Kirkpatrick's keys to success include:

Empathy — Putting oneself in the shoes of the other person. There is a need to understand to what extent change will be resented or rejected, as well as accepted or welcomed. Since all communication has been top-down, and the constituents are not involved no one in administration knows whether these changes will be accepted or rejected. The assumption seems to be "that if we build it (Distance Learning classrooms) they will come and use it."

Communication — Means more than just listening; it means creating understanding. Without a vision, and the apparent total lack of communication of the Why, What, How, and When, there is little chance of creating understanding.

Participation — Secure the involvement of those concerned and effected by the change. Effectively, few of those who will be effected by the change have been involved in the change process. More faculty, staff, students and administrators need to participate in the process.

Is there a solution to the problems presented by this case? It will require a fundamental shift in the thinking and direction of the administration from one focused on technology to one focused on the instruments of learning and education, i.e., the faculty and students. It will require attention to process, to communication and to establishing a vision and direction. Building on the lessons shared by Fullan, Kotter, Kirkpatrick and others, the possibility to develop broad-based campus support for the implementation of Distance Learning technology and to restructure the delivery of education on campus is real. However, to realize this vision, the campus and the system must step back, re-evaluate strategies to date, and start reaching out to those most effected by the change.

Note

1. Although this case is based on fact we have taken literary liberties which place the case in the realm of fiction. Thus, any resemblance to real people or places is purely coincidental.

References

- Educom Staff (1996). Should distance learning be rationed?: Point counterpoint with Larry Gold and James Mingle. *Educom Review*, 31(2), 48–50, 52.
- Emmert, M. A. (1997). Distance learning tests America's higher education dominance. Connection: New England's Journal of Higher Education and Economic Development, 17(2), 20-22.
- Fullan, M. (1993). Change forces: Probing the depths of educational reform. New York: The Falmer Press.
- Kirkpatrick, D. L. (1985). How to manage change: Approaches, methods and case examples. San Francisco, CA: Jossey-Bass Publishers.

Koss-Feder, L. (1998 July 20). Brushing up. Time, 15-19.

Kotter, J. (1996). Leading change. Boston, MA: Harvard Business School Press.

- Novek, E. M. (1996). Do professors dream of electric sheep? Academic anxiety about the information age (ERIC Clearinghouse on Resources ED399594).
- Rogers, E. (1971). Diffusion of innovations. New York, NY: The Free Press.
- Swalec, J. J. (1993). Engaging faculty in telecommunications-based instructional delivery systems (ERIC Clearinghouse on Information Resources ED368418).
- Verduin, J. R., & Clark, T. A. (1991). Distance education: The foundations of effective practice. San Francisco, CA: Jossey-Bass Publishers.
- Willis, B. (1992). Making distance learning effective: Key roles and responsibilities. *Educational Technology*, 32(6), 35–37.