Distance Education: The Tipping Point
in the Transformation of Higher Education

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Abstract: This paper explores three questions: What do research and best practices identify as better ways to: 1) initiate and lead technological change in an academic unit (department or college); 2) provide technology training, education, and support; and 3) utilize technological innovation as a change agent to transform higher education, realigning it with the new realities of global digital competition and learner-centered education?

Respected business author and scholar, Peter Drucker, predicted that the dot-com revolution would transform education, *every business must become globally competitive, even if it manufactures or sells only within a local or regional market. The competition is not local anymore--in fact, it knows no boundaries* (Drucker, 1999, 51). The Internet and ubiquitous global communications have indeed transformed higher education, changing the past's geographically based educational markets by ameliorating the effects of distance, size, location, and time. Digital, global competition is now a given in higher education, as universities and colleges around the world are scrambling to secure their space, their classrooms in the virtual halls of the global virtual university (Drucker, 2000; Hanna, 2000; Johnson *et al.*, 2003; Latchem & Hanna, 2001). Traditional geographically isolated higher education markets are no longer guaranteed, as even remote states like Alaska, face increasing digital competition with thousands of students taking online courses from universities thousands of miles away.   The surge to rush programs and courses into online environments has increased the need for transformational leadership (how to effectively lead innovational change at the unit level) and for effective professional development and technology support. In addition, as described in Table 1. *Change Forces in Higher Education,* globalization forces (*consumer-ization, commoditization,* and *cost-reduction*) are also transforming academe, requiring new ways of perceiving degrees, courses and curriculum, opening new opportunities to transform and restructure higher education bureaucratic processes, curriculum and content, and teaching practices, focusing more on the learner.

Transformational Leadership: Leading Technological Innovation at the Unit Level

Effective leadership practices for initiating, integrating, and sustaining technological innovation have become increasing important in this era of accelerating change. Many authors now refer to this practice as *Transformation Change Leadership*, where individuals, groups, and even the organizations themselves, become learning organizations, continually adapting to a rapidly morphing environment. Many of the concepts and terms in change leadership theory and practice (*early-adopter, settlers, innovators/pioneers* and so forth) have originated in Everett Roger's meta-analysis of human change research, the dissemination of innovations (Rogers, 1995). Fullan and others have described the goal of this new leadership style as seeking to *create a culture of change* (Bennis, 1989; Bennis & Mische, 1995; Bennis & Townsend, 1995; Dolence & Norris, 1995; Fullan, 2005; Hanna, 2000; Johnson, 2005 ; Johnson et al., 2003; Kanter, 1989; Kerr, 2001; Kotter, 1996; Kouzes & Posner, 1995; Latchem & Hanna, 2001; Peters, 1987, 1992; Rogers, 1995; Rowley *et al.*, 1997; Senge, 1990, 1993, 1999; Weick, 1995). Effective unit leaders have the following goals and exhibit the corresponding actions listed in Table 2.

Table 2. Specific Examples of Transformational Leaders: Goals and Actions

Goals/Intentions of an Effective Unit Level Leader	Specific Behaviors of an Effective *Transformational* Unit Level Leader:
Seeks to produce a risk-reduced environment where faculty feel safe to try new ideas… where it is OK to miss the mark and try again.	• Provides emotional support with continual assurances • Admits own mistakes • Shows personal interest: Has many hallway conversations about "How is it going? • Attends & pops-in to offices and lounges • Is upbeat and positive about eventual success… "Progress is often three forward two back" • Honors those who try and miss mark. • Puts initiatives on agendas • Provides $ and other resources, especially small resources (10 dollar straws break innovations' backs.) • Rewards (with recognition and/or resources) those taking risks. Focuses on obtaining respected faculty support • Continually invites & includes those not involved to *avoid "we vs. they" syndrome.* (Johnson, 2005 ; Johnson et al., 2003; Rogers, 1995)
Consciously works to enhance organizational culture and organizes activities to enhance unit change capacity and effectiveness. Takes a personal interest in change efforts and activities in the unit.	• Provides opportunities for faculty to go to other departments, campuses, and/or conferences to observe innovations and hear testimonials from other faculty they can relate to via similar discipline, peer or superior institutions • Provides opportunities and incentives to faculty to test innovations • Provides opportunities for faculty to present their successes with innovations to their peers, locally and nationally • Pays attention to her/his department/college culture and watches for changes and retrenchments • Actively seeks evaluation information on department's performance, including, third party extensive evaluations • Scans the environment (internal, external and macro) looking for patterns that may impact the organization and academic discipline and distributes those ideas to others • Facilitates the development of a vision for the department that is Big Enough—Faculty may not develop the commitment or willingness to endure the travails of significant change unless they are inspired by the vision of making a *real difference* • Focuses organizational attention on areas where collective agreement exists • Is willing to be seen as colleague in meetings, letting go of some of the "trappings of power" by joining in the discussion • and images that define, "who we are." Such activities usually involve food and often provide activities for members to see each other in new ways, cracking old masks of past stereotyping. • Creates and/or enhances traditions, ceremonies, rituals, and establishes social functions and traditions; such as, retreats, informal gatherings, lunches, banquets, and other social symbols that provide social cohesion and common unit experiences and ties (a culture) (Bolman & Deal, 1997)

Effective Faculty Professional Development and Training

> *The organizations that will truly excel in the future will be the organizations that discover how to tap people's commitment and capacity to learn at all levels in an organization.*
> -Peter Senge, *The Fifth Discipline,* 1990.

Departmental technological innovation and change depend upon quality faculty professional development practices. Adult Education research and practice provide effective strategies for implementing information and communication technologies (ICTs). Academic unit leaders and faculty must promote an organizational climate that enhances positive change. Some of the goals for unit level leaders in leading technological innovation have been identified as follows:

- Change faculty perspective: shift the faculty instructional role from an *instructivist* (teacher/professor) to a *constructivist* (facilitator) orientation.
- Reduce faculty fear of technology and technological change:
    - Rutherford and Grana (1995) note that many professors have a fear of technology because they did not want to seem incapable of using new technologies effectively.
    - Focus on meeting the instructors' needs (Bates, 2000; Kearsley, 2000).
    - Provide timely professional development seminars on a regular basis.
    - Integrate educational technology and professional development into a transformational learning framework that "lends consideration of a deeper understanding of how educators learn" (King, 2004). King concludes that in facilitating the transformation of faculty using technologies that "providing traditional workshops alone will not likely be the entire answer" (p.19).
    - Develop a mentor program to assist faculty who are learning to innovate with technology. [Humphrey, Bowman & Uhde (2004) found that higher education institutions mu st "facilitate communication and the sharing and coaching of skills (p.7)" provide training on developing mentor relationships through release time and "communicate their technology needs, develop individualized action plans and create [internal] processes to secure the necessary resources" (p.7).]
    - Provide peer workshops, where faculty share techniques, tech skills and ideas (Reilly, 2205)
    - Insure that technologies are easy to use and that faculty have the appropriate training (Spotts *et al.*, 1997)
    - Find ways to squeeze and create time for faculty to learn and practice their tech skills (Wilson, 2005)
    - Barriers that will impede technology innovation: unclear purposes for online instruction, governance, intellectual property rights, and increased time and money for training (Palloff & Pratt, 2001)

Table 3. Providing Effective Unit-Level Support for Technological Innovation: Issues, Actions, and Considerations [(Johnson et al., 2003, p.29-30)]

General Issues	Specific Actions and Considerations
Technology Support (Technology support issues are as important as acquiring the technology and providing technology training. Leaders must focus personal attention on this key function [Foa 1996; Foa 1997].)	Provide in-school, in-office, one-on-one, faculty-oriented technology support (Foa 1996; Foa 1997). Faculty really appreciate support people coming to their offices, especially for one-on-one tutoring and training
	• Periodically ask and ensure that technology resources are working, available, supported, and being used (Foa 1996; Foa 1997): Meet with technology support people regularly. • Create school technology support staff resources on site in the school, responsible to the dean. • Establish a committee of faculty and staff who regularly use technology to hold monthly school/department technology feedback and planning sessions. Leader attendance is a key factor for success. • Check, personally, into the efficiency of the school technology support, and follow up on problems (again, personally) when problems are not addressed quickly. • Establish a data collection and review procedure for tech support and the use level of various equipment and software such as computer projectors and faculty web pages. • In larger schools, consider establishing problem/support tracking and a

Technology Support	follow-up program/mechanism such that each request is given a number and tracked. That way, problems are resolved and technology doesn't go unused because someone forgot to check into fixing it.
	• Request that technology trainers and support people use non-technical, supportive language when assisting and working with faculty: • Supportive language refers to reducing the amount of techie terms and explanations, replacing them with what the faculty need to know to effectively use the technology. (Most people don't know the name of, or understand, the workings inside a phone. But they don't need to – they know how to use a phone.) • Consider getting tech support personnel peer coaching training, and ensure that their role is to teach and assist faculty and not make faculty feel uneducated about technology.
	Personally ask that school technology support staff have a service attitude – that their job be of service to the faculty and staff.
	Establish a plan for continuous tech support personnel replacement. Keeping skilled and experienced tech support staff members is often difficult, given the wage differential between the education and private sectors.
	Personally ensure that a problem escalation procedure is developed so that faculty/staff/students get things fixed and/or working just in time, when they need them, especially in relation to using technology in class sessions.
Technology Refresh and Upgrading	Develop a rational technology refresh program: • Develop clear guidelines for who gets upgraded and why. • Avoid the equity trap, which dictates that everyone gets a computer upgrade on the same time schedule even if some of those people are just using the computer as a typewriter or e-mailer and may not use or need other capacities in newer machines. • Establish a faculty technology committee to make some of the decisions surrounding technology. Such action can be both helpful and politically prudent.
	• Every year, upgrade those who are making the effort to be the faculty innovators and first adopters. Update everyone else's machines every three years (or some other time increment that makes sense). • Purchase the latest hardware and software for all new faculty members and have it on their desks when they arrive.
	Support the zealots (the first adopters and innovators), especially with computer upgrades and software (Foa 1996).
	Don't waste technology time or resources on those who are not interested – but keep inviting them to participate (Foa 1996).
	Become personally involved in the interaction, conflict, and problem-resolution issues between the school tech support staff and the campus computing group. (The pressure of authority is sometimes needed to ensure that problems are addressed at the campus level so that they don't impact or impede school technology functions.)
	Techies are often overworked and underappreciated. However, there are times

	when they may not want, or may not know how, to fix or solve a problem – and they may then tell you "it can't be done." A dean asking around may often get a different answer that is more helpful to the school.
Recruit Faculty and Student Assistants with Technology Skills in Mind	Include instructional technology proficiency as one of the criteria for evaluating candidates for new positions. New faculty with up-to-date instructional and research technology skills can be a big asset to a department/school and significantly accelerate technological innovation.
	Consider redesigning traditional student support and other positions, and focus students and others on technology support.
Professional Development of Faculty/Staff	Avoid inoculation-style faculty development – i.e., one shot at the beginning of the year. Consider peer mentors, cohort teams, and other long-term professional development strategies.
	Attend, or at least drop in on, faculty/staff professional development sessions (Foa 1997). Take a risk and participate in the training to demonstrate your interest and involvement (Foa 1997).
	Recognize that technology creates its own culture, which is first established and proliferated by the new language (techie speak). When this happens, many faculty might feel left out and a we-versus-they subculture could form (Schein 1992). Keep inviting those who are technology-shy to participate, and continue validating their right to decide not to adopt the new technologies. Keep looking for the Touchstone.
Budgeting and Resources	Be sure to pay attention to and fund small-item requests from faculty/ staff involved with technology. A $50 software program can make the difference in the success of a technology innovation project. It is often the small, unanticipated items that leverage significant change (Foa 1997).
	Be prepared and double your search efforts for more funding. Initiating technology innovation means that you as a leader will be faced with increased requests for funding as more people get involved and more technologies prove their worth and are adopted (Foa 1996).
	Fund and hire school technology support resource personnel who are on site and responsible to the dean.
	Realign and commit regular annual operational monies for technology. Increase grant activity and develop all other avenues for technology purchases and support.

The New Realities of Higher Education: Global Digital Competition, Cost Reduction, and Learner-Centered (Consumer-focused) Education

A number of management researchers, theorists, and authors have described how small changes can have huge effects on a system {Gladwell, 2002 #58; Gleick, 1987 #61; Kilmann, 2001 #59; Malloch, 2005 #60; Wheatley, 1999 #57}. These small changes, called by some, *Tipping Points*, can cascade change through scores of interconnected systems across vast arrays of systems. Most now agree that the Internet has changed publishing, information storage and retrieval, research, and teaching and learning. However, the Internet is just one part of the interconnected array of change forces that are driving globalization. The *change forces* that are driving globalization, in combination with the Internet, have the potential to transform higher education in dramatic and irreversible ways. Some of the change trends that are affecting higher education are described in Table 3 below.

Table 3. Change Forces in Higher Education

Decreasing	Increasing^^^	Emerging^^^
State and/or traditional financial support base	• Tuition, fees, and costs • Dependence on outside research $$$ (tyranny of research funding) (Kerr, 2001)	*Market-Consumer System* based on perceived value, economies of scale, convenience/environmental fit of learning… as decided BY THE LEARNER-CONSUMER
Autonomy of the Academy to govern itself (due to increasing external funding dependence)	Outside influence (direct and indirect) over mission, goals and culture tied to resources, especially $$$ (Johnson et al., 2003)	Dependence on and direct intervention by external funding and policy sources… movement towards *(Wallmart-ization)* of higher education (continual push to reduce costs per *unit* and simultaneously increase volume (*commoditization*: where education/degrees/certificates are *commodities* (Johnson, 2005).) These forces push the culture of the academy from the collegial culture toward the entrepreneurial culture (Johnson et al., 2003)
Traditional Students (age 18-22, often called *captives*	Non-traditional (older) students changing careers and/or entering new careers created by new economy and technology	Specialized cadres of learners; based on need to know, *just-in-time learning*, and new technologies and related needs in the labor market.
Traditional programs and degrees	Non-traditional programs based on changes in economies, cultures, and immediate societal needs	Short-term only, just what is needed, just in time, no frills, content-only focused instruction, tending toward "certifications"… Practical immediate application of learning
Traditional Master's Level Graduate Education that maintain historical perspective and orientation	Increased flexibility of programs to specific disciplines and needs of students with increased collaboration with organizations that hire graduates	Taylor-made programs for specific fields or large organizations (partnerships). More defined specificity in curriculum and student outcomes, case-based and problem-based curricula and pedagogy
University monopoly/sole-source for educating professionals in certain fields; such as, Education	State regulatory boards/agencies providing alternate routes (other organizations, public and private) to "certify" professionals (provide entry and continuing education for recertification)	Focus on meeting specific criteria and specific knowledge (more emphasis on training than educating) professionals for current fields of practice
Traditional higher education organizations for students and resources	New types of education-delivering organizations, especially for-profit organizations entering the higher education field	New hybrid combinations of public, private, and for-profit educational institutions partnering with corporate, non-profit, and public entities to deliver specific programs and life-long learning in specific fields and/or to meet specific needs. Tomorrow's competition: Time-Warner, Disney, GE., & The Donald Trump School of Management
Traditional Doctoral Level Graduate Education	Hybrid programs focused on current problems in field (often outside of academe). Case-based and problem-based curricula and pedagogy. Partnerships with other universities to spread costs and resources	Taylor-made programs for specific fields or large organizations (partnerships). More defined specificity in curriculum and student outcomes to meet organizations' needs that hire graduates

Perceived value of theory and inter-relatedness of knowledge and focus on long term, big-picture, inter-related complexity of disciplines and knowledge	Perceived value of practical, less theoretical, narrowly focused, and short-term solutions to immediate issues	Tendency to focus only on the practical, short-term, and *easy* solutions to complex problems and knowledge bases… often using flyswatters to subdue grizzly bears (Although Drucker asserts that learners want to see the big picture, to know how things fit together (Drucker, 2000))
The status of Higher Education, having a Higher Education, and/or being in Higher Education	Anti-intellectual (anti-liberal) perspective, based on immediate utilitarian, consumer philosophy	Isolation of higher education and/or increased environmental control, decrease in Liberal Arts education (Kerr, 2001).
Geo-based Competition, especially for public institutions with brick & motor assets	Non-Geo-based Competition: External competition outside state and/or traditional competitors (Drucker, 1999)	Non-traditional competition, for-profits (International/Global), especially via Distance and distributed virtual environments *[Also see (Johnson, 2005)]

Unit level leaders who survey their environment and track these *change forces* and relate them to their particular discipline and unit, will have a distinct advantage in being able to lead the design and redesign higher education programs that will be successful into the future. As these *change forces* ripple though the higher education environment and competitive structures, those universities who have unit-level leaders who can: 1) initiate and lead technological change, 2) who can effectively provide technology training, education, and support for innovation; and 3) who understand how to align their units and disciplines with the new realities of global change forces, will have a much better probability of surviving in a globally interconnected and competitive world.

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