INSTITUTIONAL TRANSFORMATION: INTRODUCTION TO THE SPECIAL ISSUE

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> Is there sufficient motivation for the institution to scale up online education?
> This may involve financial and other considerations, and [we refer] to it as "cost-effectiveness" [1].

ABSTRACT

This special issue of the *Journal of Asynchronous Learning Networks* focuses on institutional transformation, including insights into business models. This introduction points to additional Sloan-C resources on cost effectiveness and institutional commitment.

KEYWORDS

Institutional Transformation, Institutional Commitment, Institutional Motivation, Business Models, Cost Effectiveness, Scalability

I. INTRODUCTION

This issue of the tenth anniversary volume of the *Journal of Asynchronous Learning Networks* looks back to the original propositions about institutional commitment that were framed more than a decade ago when asynchronous learning networks (ALNs) showed early promise of transforming higher education by making it more accessible, effective, affordable, and satisfactory. Because Asynchronous Learning Networks (ALNs) "emphasize people-to-people communication combined with traditional and/or information-technology-delivered learning tools" [2], Mayadas observed that "Access to high quality, cohort-style learning, even for special learner segments and narrow specialties, represents a new outcome that is made possible through the three features of ALN approach—asynchronicity, efficiency and geographically distributed cohorts" [3].

ALN promised to:

> Reduce costs without reducing quality [delivering] education to anyone, anywhere and at anytime… [and] increase the capability of higher education to reach new markets, both for life-long learners and for learners in industry… increasing productivity and scaling up to permit teaching larger numbers of learners [2].

Yet in 1997, for on-campus programs:

> Exploration of new productivity outcomes, is largely absent, partly because there appears to be little motivation to explore outcomes which could impact costs through larger class sizes, improved student retention, and self-pacing, while at the same time improving learning quality [2].

Today, online learning is an expectation in higher education, and it soon will be in K–12 [4, 5]. Online education has grown rapidly and continuously. Nearing 20% of all postsecondary enrollments, online education's growth rate is ten times the overall growth rate projected for all of higher education; academic leaders believe that online learning quality is already equal to or superior to face to face instruction, that its quality is readily assessable, and that students are at least as satisfied learning online as they are face to face; 56% of the nation's institutions of higher learning report that online education is critical to their long-term strategies [6, 7].

Because greater access to quality higher education is a national imperative, the transformative effects of ALN on institutions are increasingly important. Thus, in 2005, one of the challenges of the annual Sloan summer research workshop was:

> How can institutions be transformed best to take advantage of ALN in support of their core missions? What are key enablers of this transformation, including areas such as institutional vision, leadership, business models, and organizational structures?

II. INSTITUTIONAL TRANSFORMATION

This issue includes the responses of three teams who responded to the Sloan summer research challenge on institutional transformation; in addition, six mini-cases that give snapshots of transformation at an array of institutions.

- In "ALN Business Models and the Transformation of Higher Education," Miller and Schiffman suggest that institutions' entry into online programming was most likely motivated by these intentions:

  (1) to extend access to degree programs to new off-campus students or

  (2) to improve the quality of teaching for existing students on campus [8]

  Whether the initial motivation was for on campus students or for outreach to new students, ALN has influenced reconsideration of leadership and engagement throughout educational organizations. Miller and Schiffman observe that people at all levels in the institution need to work towards continuous innovation: "The ultimate transformation of higher education will be determined by how well institutions mainstream online learning into their curricula, into their business practices, and into the broad academic culture of their institutions" [8].
- In "Online Learning: New Models for Leadership And Organization in Higher Education," Otte and Benke summarize how leadership roles and integrative processes are being affected by ALN's "rhizome-like reach into all aspects of institutions of higher education;" they provide provocative questions for examining "interfaces between online and blended learning, profit-centers and centralized programs, part- and full-time faculty, and even exchanges beyond departments and institutional boundaries" [9].
- In "The Times They Are A-Changing," Scarafiotti and Cleveland-Innes survey sweeping changes in demographics. Giving fundamentals for student access and success, they emphasize strategic planning based on mission distinctiveness [10].
- In "Cases of Institutional Transformation," Lorenzo interviews people at six institutions—The Pennsylvania State University, University of Texas TeleCampus, Rio Salado College, The City University of New York, Athabasca University, and Empire State College—and provides snapshots of surprisingly different ways ALN has transformed practice [11].

III. BUSINESS MODELS

Responding to the "dearth of detailed information on effective business models, business strategies and effective practices on which to build sustainable online education programs," Vignare, Geith and Schiffman share a survey designed to determine the effectiveness of various models [12]. They find that 3 models predominate: "(1) Independent self-funded college, (2) department or school within the university which is self-funded, and (3) department or school within the university which is overhead funded" [12]. Examining student services, curriculum planning and design, and business decisions, the survey finds that "some of the biggest challenges were faculty, staffing, investment, constantly changing environments, managing quality, and support for students and faculty" [12].

In "Business Models for Online Education," Lorenzo reports on interviews with nine institutions—Colorado State University, Dallas County Community College District (DCCCD), Duquesne University, Georgia Institute of Technology, University of Central Florida, The University of Illinois at Springfield, University of Massachusetts Lowell, University of Michigan, and University of Georgia [13]. Each of these is building innovative environments.

IV. ADDITIONAL SLOAN-C RESOURCES ON COST EFFECTIVENESS AND INSTITUTIONAL COMMITMENT

By some estimates more than 80% of the eligible U.S. population lacks college degrees [14]. To make "learning outside of the classroom… what it ought to be, an ongoing part of ordinary life" [15], Sloan-C's goal of greater access through ALN means expanding the quality, scale and breadth of higher education.

Institutional commitment and cost effectiveness for providers and for learners are significant components of Sloan-C's quality framework [16] and of effective practices that Sloan-C members have contributed [17,18]. Bishop's "Research Highlights: Cost Effectiveness of Online Education" [19] provides especially useful metrics for containing, reducing and avoiding expenditures in money, time, and effort.

The Sloan-C quality framework calls for: models tuned to institutional mission; tuition and fees that reflect the cost of delivery and services; continuous testing of strategies and policies, including policies for intellectual property, partnerships and resource sharing to reduce costs; and scaling educational programs to accommodate capacity enrollment as unique institutional missions define it [20].

A. Mission

Not only the missions of individual institutions, but also the mission of higher education itself is changing to create "ubiquitous cultures of learning… in which educational opportunities become pervasive through the use of information technology" [21]. "We need a new paradigm for delivering [education] to even broader segments of our society. Just as with other resources such as food, energy, and transportation that soon became necessities of modern life and therefore the responsibility of a society, today higher education itself has become a similar need" [20].

Envisioning a new paradigm, the 'meta university' of the future, Graves observes that "the invisible hand of educational leadership will be required to ensure that technology-enabled innovation and competition create new national educational 'wealth' rather than costly chaos within the higher education community" [22]. Because institutional transformation requires simultaneously top-down commitment, strategic planning, partnership building, and bottom-up innovation, Graves asserts that merely bolting technology

onto the classroom lecture might enhance learning but would be prohibitively expensive. A better approach would be to move away from the lecture and towards more faculty-supported and self-directed, active learning. Such an approach would require rethinking, disintermediating and disaggregating traditional practices including various faculty roles, instruction, assessment, instructional and curricular costs, and general education and the majors, "*Collabotition*—collaboration and competition—among institutions will have to include changes in policies that govern the inter-institutional exchange of academic and financial credits and a host of other business practices that are inimical to the success of distributed education" [21].

"Clearly, all universities have the potential to become the educational equivalent of global multinational corporations that operate across national boundaries," says Hanna in his 1998 study, "Higher Education in an Era of Digital Competition: Emerging Organizational Models." Hanna compares traditional and emerging models and missions for higher education, finding that "growth in worldwide demand for learning is combining with improved learning technologies to force existing universities to rethink their basic assumptions and marketing strategies… challenging traditional residential universities to change more quickly and dynamically" [23].

Recognizing that reputation is "embedded in brands—the name of the institution is readily recognized and it is easy to associate quality level to that name" [24], schools envision the effects of change, making it part of their institutional missions. Many schools that have done so have experienced annual enrollment growth rates of 25–40%. Here are just a few examples of schools that have integrated online education into their missions. A world leader in online education, with significant attention to student services and intellectual property [25], **University of Maryland University College** (UMUC) has more than 144,000 online enrollments; its mission is: "The University in its entirety has but one focus—the educational needs of the nontraditional student" [26]. Beginning in 1995 with 119 enrollments on two campuses, **SUNY Learning Network** (SLN) has become an integrated instructional method on all 64 of its campuses, now offering more than 4300 courses with 2000 faculty and more than 106,000 students worldwide. The primary goals of SLN are to "bring SUNY's diverse and high-quality instructional programs within the reach of learners everywhere, and to be the best provider of asynchronous instruction for learners in New York State and beyond" [27]. Based on its history of distance education since 1892, with the advent of ALN, the **Pennsylvania State University** decided to create its 25th campus and named it World Campus with a mission "to connect learner needs with Penn State resources through a variety of program delivery technologies and methods to help individuals transform their lives through education" [28]. All five **University of Massachusetts** campuses participate in UMassOnline which began in 2001 with a mission to "to meet the online educational needs of people locally, nationally, and internationally by offering accredited educational programs via interactive, Internet-based learning systems" [29]. With more than 105,000 enrollments, **Illinois Virtual Campus** (IVC), 72 public and private colleges and universities in Illinois "seeks to provide residents of Illinois with easy access to all of the online offerings of Illinois colleges and universities, to provide high quality support services for all online students in Illinois, and to provide state-wide leadership for the development of quality, comprehensive, and cost-effective online higher education offerings to meet the needs of Illinois citizens" [30]. With more than 80,000 enrollments in its first five years, **eArmyU**'s mission is to: "Increase retention by allowing Soldiers to earn credits, degrees and certificates at low or no cost to them while they serve on active duty, and develop educated, technology-savvy Soldiers who will succeed in the missions and on the battlefields of the 21st century;" already one-third of all Army voluntary education is online [31].

At **Rio Salado**, where enrollments grew from 10% of total enrollments in 1995 to 48% in 2002, the core ideology is illustrated by its Vision, Pride Factors, and Core Values:

Vision: Through living our values, Rio Salado College creates a climate of high expectations for

> the success of our students, customers and employees.
>
> Pride Factors: We take great pride in providing programs and services that are characterized by: quality, convenience, timeliness, and accuracy.
>
> Core Values: We are unalterably committed to demonstrating the following core organizational values: Learning, customer focus, innovation, assessment/continuous improvement, teamwork, professionalism, and diversity [32].

Rio Salado's mission is:

> As an institution of higher education placing high value on student learning, Rio Salado College creates convenient, high-quality learning opportunities for diverse populations. We specialize in customized, unique programs and partnerships, accelerated formats and distance delivery. In all that we do, we pursue continuous improvement and innovation, and we challenge the limits of tradition [32].

B. Strategy, Policy

Costs for online education—development, delivery, administration—affect all the stakeholders: students, parents, faculty, institutional leaders and national policy makers. Thus, Hislop recommends that "we should approach [cost] studies more from the perspective of economics or policy formation than thinking of them as simple accounting exercises" [33]. Indeed, strategic planning and policy making must reflect the diverse contexts and aims of higher education. Surveying "The Costs and Costing of Networked Learning" and taking multiple perspectives into account, Rumble identifies approaches to costing and details a range of cost comparisons [34]. In another multi-perspectival model—the ACTIONS model: access, costs, teaching functions, interaction, organizational issues, novelty, speed—Reid details how organizations can create system-wide, comprehensive approaches to their selection of IT resources for "scalability, interoperability, consistency and flexibility" [35]. Moonen sees such strategies as efficiencies that optimize costs and quality effects: "An educational system is said to be 'efficient' when an optimum balance is found between minimizing the costs and maximizing the effects/quality" [36].

Keeton finds that an "institutional environment that supports and encourages inquiry" is the most highly regarded indicator of quality among faculty [37], and others examine institutional resistance to change. Citing Jaffee [38], Harris points out that:

> Institutions of higher education are social organizations characterized by "traditions, cultures, norms, and institutional missions." These are all reflected in the decision-making processes of the university, which places great power in the hands of the faculty and distributes the making of policy decisions across the full spectrum of organizational units. Policy is set by the university, by the school or college, by the academic department, and by the individual instructor. Worse yet, policy is often set at one level, interpreted at another level, and executed and monitored at a third. Some of the most staunchly defended policies are de facto, a result of custom and tradition rather than purposeful administration. It should come as no surprise that far reaching policy changes are hard to come by in the university [39].

Thus, Jaffee calls for examining "the prevailing academic culture and the widely institutionalized value placed on classroom-based teaching and learning" [38].

Schools that have reported on their organizational and cost structures reveal a rich diversity of cultures, values, and innovations. At the University of Illinois, where the fee structure for online courses is identical to other scheduling options, cost analysis includes benefits such as increased income potential,

job fulfillment for technically proficient graduates, and faculty training [40]. The University of Illinois at Urbana-Champaign continuously monitors "vital signs including learning effectiveness, market demand, student satisfaction, faculty satisfaction, retention, profit and growth" [41]. UMUC discovered ingredients that contribute to an ideal cohort size of 25, noting that "cost examinations should consider the beneficial spillover effects of online education, such as renewed interest in pedagogy and innovation, to the entire institution" [42]; UMUC explicitly links cost measures and strategies with quality indicators for student and faculty support, curriculum development and delivery, and evaluation and assessment [43].At the State University of New York, 64 campuses benefit from cost effective central faculty training and local faculty support centers [44]; a key part of SUNY's strategy is ongoing research into faculty and student satisfaction. Pace University's program, the National Coalition for Telecommunications Education and Learning (NACTEL), employs partnerships with industry and service organizations and meets short-term and long-term financial goals using continuous, embedded assessment [45]. At Brigham Young University (BYU), where on-campus enrollments are fixed, a cost effective goal is to use technology to deliver BYU degrees by substituting capital for labor, decreasing costs per learner by 40% [46]. The Rochester Institute of Technology emphasizes educational relationship management using profiling and tracking systems not usually found on campuses [47]. At Drexel University where cost analyses compare hidden face to face costs such as physical plant and equipment depreciation and replacement with costs of online delivery such as faculty incentives, support staff, and technology, a key consideration is the valuation of student time [48]. As part of its strategy, Drexel University makes online teaching a regular part of faculty workload [49]. At the Pennsylvania State University, a full range of student services is provided online [50, 51]; faculty are rewarded for online teaching and innovation [52]; ongoing research is conducted to conserve faculty time [53]. A balanced range of programs minimizes fixed costs on individual programs; value based pricing responds to market demand; and "outsourcing, continuous quality improvement, streamlining marketing, and student services relationships help achieve the goal, which is capacity enrollment" [54].

C. Partnerships and Resource Sharing

Sharing resources and creating partnerships "maximizes available resources [leveraging] costs and benefits to the institution" [19]. Opportunities for partnerships and resource sharing abound. Some examples are consortia and multi-school partnerships [31, 55], libraries [56], general education, and profession- and industry-specific educational course sharing and evaluation [45, 57, 58, 59, 60], open source programs and voluntary groups for sharing assessment and courses [61], and partnerships among institutions and businesses [62]. To help faculty engage in cross-institutional collaboration, McCurdy and Schroeder provide a webliography of useful resources including opportunities for inter-institutional partnerships [63].

Within institutions, ALN enables more efficient use of space and other resources, as exemplified in studies of courses in chemistry [64, 65], electronics [66], engineering [67], statistics [68], pharmaceutical sciences [69], and in circuit analysis, economics, microbiology, and Spanish [65]. In each of these cases, not only were more students served at lower cost, but gains in learning were achieved.

D. Scalability

In 1982, Turoff predicted that, without reducing quality, virtual universities could be built that would cost less than a single physical classroom. Virtual universities could reach students anywhere using constructivist, cohort-based instruction with highly interactive technologies that would manage academic communications and administrative functions [70]. Grave concurs that schools could do more with less by:

- redesigning individual course sections to increase learning and convenience,

- redesigning common courses to decrease costs and increase learning outcomes, and
- redesigning program delivery to participate in flex markets [71].

Today, with a billion worldwide internet users, and another billion expected within the next decade [72], the demand for education is limitless [73]. Especially for audiences for whom education was not feasible before now, ALN can improve success rates using proven pedagogies with significant cost reductions, by fostering more flexible schedules and greater sense of community and engagement, and by sensitivity to language and culture [74].

V. CONCLUSION

As many have shown, asynchronous learning networks are leading the transformation of higher education. Of value to students, faculty, the institution, and society, ALN makes it possible for far more people to obtain college degrees:

> College graduates are more likely to vote, to have regular health care, to raise healthier children, to volunteer, and to raise children with higher measures of educational achievement. Overall, there is a strong relationship between having a college degree and measures of health, community involvement, and cultural participation, all of which have value to society. Society also benefits directly from the monetary effects of higher education, since college graduates earn and spend more, and pay more taxes than those without college degrees [75].

When higher education "becomes what it ought to be" [15]—not only our institutions—but also the quality of everyday life will be transformed.

VI. ABOUT THE AUTHOR

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