Process Improvement or Transformation:

e-Learning Strategies in U.S. Higher Education Institutions

Introduction

According to recent U.S. government data, there were 20.506 million Higher Education Institution (HEI) enrolments in fall 2014. 5.8 million students were enrolled in e-Learning (2.85 million taking all courses, and 2.97 million taking some). The e-Learning growth rate from 2013 to 2014 was +3.9% (those taking at least one course). However, enrolments in e-Learning were highly concentrated (50%), within just 247 HEI's.

In view of the above, it is considered beneficial to step back and investigate the strategic e-Learning positions taken by individual HEI's (King and Boyatt, 2014). This is of value because e-Learning adoption is influenced by multiple variables; individual institution purpose, governance structures, capabilities, processes and culture. Offering insights on a broad spectrum of institutional types, this research investigates;

How US Higher Education Institutions strategically position themselves in e-Learning?

Previous Research

Successful e-Learning involves not only overcoming technological challenges. In fact, technology per se, is neither a significant inhibitor nor an enabler of e-Learning (Forsyth et al 2010). Therefore, additional factors are at play; institutional, organizational, behavioural, and processes. Furthermore, quality e-Learning has been strongly linked to organizational structure, in combination with a supporting culture.

Organizational features have also been identified as barriers (King & Boyatt 2014), although academics' adoption is found to only somewhat contribute to slower diffusion (Goktas et al 2009). However, when faculties are forced down the e-Learning route, due to management directives and mission statements, sound pedagogic practices may become flawed or missing completely (Perrin 2014).

Recommendations for mitigating e-Learning barriers include; establishing a clear institutional direction, vision and policies on the design and delivery of e-Learning. Furthermore, designing clear strategic and program-wide planning procedures and processes is essential (Birch & Burnett 2009). In addition, HEI's should consider a staged approach, which begins by developing elements that support core strategic objectives. Institutional infrastructure, staff attitudes, and skills have also been found to accelerate uptake (King & Boyatt 2014). This is a significant because the adoption of e-learning relies on recognizing, valuing and rewarding teaching (valuing the nexus between technology, content and pedagogy).

HEI's are also facing a high degree of complexity which is driven by external influences (Maassen et al 2012). Those external influences include public sector funding, technology

and competitive forces. Therefore, HEI leaders and administrators must weigh the tradeoffs when considering incremental or disruptive change (Stensaker et al 2007).

Gap

Due to the above conditions, HEI's need to take a stand. Should institutions resist the changes occurring, incrementally adapt, or make transformative changes to their educational offering (O'Connor 2014)? This research explores the positioning strategies, within a wide variety of U.S. HEI's. The choices identified are considered highly relevant when designing a coherent strategy that matches an individual institutions purpose, context, and capabilities. Such a coherent strategy is necessary due to growing external pressures and feelings of urgency.

Positioning e-Learning

Ross and Beath (2002) investigated how digitalization has forced organizations to re-think their strategies. What they found was that digitalization investments differ along two critical dimensions: strategic objectives (short-term profitability vs long-term growth), and technology scope (shared infrastructure vs business solutions). Based on this typology, they constructed a "Framework for IT Investment." **The framework helps distinguish between four digitalization investments: renewal, process improvement, experiments and transformation.**

Renewal

Renewal involves updating current capabilities, infrastructure (remaining cost competitive), capacity (efficiency), and maintainability. Renewal initiatives can reduce costs and raise quality.

Process Improvements

Process improvements concentrate on improving existing processes, are less risky, and result in short-term outcomes. Process improvements build upon existing capabilities and infrastructures in order to enhance organizational processes.

Experiments

Experiments allow organizations to quickly learn about the potential benefits of new solutions, along with their limitations. Successful experiments can result in future transformational changes or incremental improvements in current processes.

Transformation

Transformation is necessary when the organizations 'core infrastructure' limits their ability to maintain long-term viability. Transformation is a high risk endeavour however; transformation is necessary if other dimensions are found to be sub-optimal.

Methods

The data for this research was collected in 2014-2015 by interviewing senior administrators in U.S. HEI's. The sample consisted of 19 universities who represented each of the following categories: 1) private, for-profit, 2) private -not for profit, masters level universities, 3) private-not-for profit, high research activity, 4) public, masters level universities, 5) public, high research activity. Eight HEI's were located in the western states, eight in the north-eastern states, two in the mid-west, and one in the south-east.

The senior administrators interviewed included people in the positions such as provosts or associate provosts (n=4), directors of online education (n=3), deans (n=5), director/VP for academic technology (n=6), director, excellence in teaching and learning (n=4), and others (COO, CIO, director accreditation, VP professional development etc.). Within each university, 1 - 2 administrators were interviewed (within one HEI a group interview of four administrators was conducted). The total number of interviewees was 27.

The interview strategy was not interrogating the informant with a preselected list of questions, but intriguing the informant to talk about prescriptions of the present and past e-Learning within her/his institution (Josselson 2014, Rubing and Rubing 2013). The interviews lasted 60+ minutes, and were transcribed verbatim.

After several rounds of reading the transcripts, the analysis of the data began by distinguishing the themes in interviewees' descriptions of e-Learning strategies, as well as personal perceptions of enablers and barriers of online strategy implementation. In the next stage, institutions were then placed on the strategy framework grid (strategy of the e-Learning offering, and the technology scope i.e. institution's unique solution to overcome the perceived barriers).

After placing the 19 universities within the strategy framework grid, they were grouped into seven larger clusters;

1. Faculty Initiative
2. Administration
3. Revenue
4. Access/Reach
5. Diversification
6. Mission
7. Educational Science

Findings

- The type of institution (Carnegie Classification: Public Research Institution, Private Non-Profit Research etc.) does not necessarily determine the strategy grid position.
- Individual faculty initiatives were found to be the initial trigger for e-Learning efforts within most institutions. Many faculty initiatives then migrated towards positions on the grid (UC Berkeley for example).

- Overlapping positions on the strategy grid can be occupied (UC Berkeley, NYU, UMASS, Fordham, SUNY).

It could be said that the long term growth and survival of many Higher Education Institutions will be determined by their ability to successfully develop strategically relevant e-Learning initiatives, along with specific technology scope capabilities. By adopting this multi-pronged approach to e-Learning, long-term institutional sustainability may be better realized.

References

Allen, I.E., and Seaman, J. (2016). Online Report Card. Tracking Online Education in the United States. Babson Survey Research Group.

Birch, D., and Burnett, B. (2009). Bringing academics on board: Encouraging institution-wide diffusion of e-learning environments. Australasian Journal of Educational Technology 25(1), 117-134

Forsyth, H., et al (2010). Distance education in an era of eLearning: challenges and opportunities for a campus-focused institution. Higher Education Research and Development, 28 (1), 15-28

Goktas, Y., Yildirim, S., and Yildirim, Z. (2009). Main Barriers and Possible Enablers of ICTs Integration into Pre-service Teacher Education Programs. Educational Technology & Society, 12 (1), 193–204.

Josselson, Ruthellen 2013: Interviewing for Qualitative Inquiry – A relational approach. New York: Guildford Press

King, E., and Boyatt, R. (2014). Exploring factors that influence adoption of e-learning within higher education. British Journal of Educational Technology 46 (6), 1272–1280

Leon, R., & Garrett, R. (2017). CHLOE The Challenging Landscape of Online Education. Quality matters and Eduventures

Maddux, C.D., and Johnson, L. (2010). Information Technology in Higher Education: Tensions and Barriers, Computers in the Schools, 27 (2), 71-75

O'Connor, K., (2014). MOOCs, institutional policy and change dynamics in higher education. High Education 68 (5), 623–635

O'Neill, K., Singh, G., and O'Donoghue, J. (2004). Implementing eLearning Programmes for Higher Education: A Review of the Literature. Journal of Information Technology Education Volume 3/2004

Perrin, D (2014). Transformation of education. International Journal of Instructional Technology and Distance Learning Volume 11

Ross, J., and Beath, M. (2002). Beyond the Business Case: New Approaches to IT Investments. MIT Sloan Management Review January 15th 2002

Rubin, H. J. and Rubin, I. S. (2005). Qualitative interviewing: The art of hearing data (2nd ed.). Thousand Oaks: Sage

Stensaker, B., et al (2007). Use, updating and integration of ICT in higher education: Linking purpose, people and pedagogy. Higher Education 54 (3), 417–433