

Some Philosophical Enquiries On E-Learning: Preparing The Tomorrow Business School

George S.Spais, (Email: GSpais@cc.uoi.gr), University of Ioannina, Greece
George N.Filis, (Email: George.Filis@winchester.ac.uk), University of Winchester, UK

ABSTRACT

Emerging digital technologies and increasing interest in the computerized delivery of higher education have led to e-learning through electronic mail, the Internet, the World Wide Web (WWW), and multimedia. The major objective of this research outlet is to examine the e-learning evolution in business schools. Our research intentions are to investigate: 1. if universities understand the market dynamics (regarding to segmentation and crossing the chasm); 2. mapping the s-curve to student needs and 3. how business schools will change the value map. From the analysis of existing empirical evidence and our research results from 140 business students of the University of Ioannina (Greece) and 50 business students of the University of Winchester (UK), we can summarize that: a. value is created when new technology is matched to student need; b. but student needs change: as the technology evolves existing students develop new needs and in addition the technology may appeal to new kinds of students, with new kinds of needs and c. understanding the structure of student needs may be particularly important at times of potential discontinuity, when existing students may reject new technologies (for excellent reasons!). The authors suggest that business schools interested in being productive should invest in implementing performance tools for all educational methods in order to accomplish the educational objectives. Further research in this crucial field of the evolution of e-learning in business schools is the examination of anticipated benefits and the experiences by early e-learning adopters, return on investment and expectations for the future.

INTRODUCTION

 Emerging digital technologies and increasing interest in the computerized delivery of higher education have led to e-learning through electronic mail, the Internet, the World Wide Web (WWW), and multimedia. The major objective of this research outlet is to examine the e-learning evolution in business schools. Our research intentions are to investigate: 1. if universities understand the market dynamics (regarding to segmentation and crossing the chasm); 2. mapping the s-curve to student needs and 3. how business schools will change the value map. The following literature review attempts to examine the above research propositions.

ROLE OF TECHNOLOGY

Technology is a tool that can enrich curricula, enhance teaching, strengthen links between schools and society, and bridge equity gaps for disenfranchised adult learners (Dede, 2000; Imel, 1998; Trotter, 1998). Outcomes depend on many factors, including the quality of the design and delivery of the learning environment. Gardner (2000) recommends, “before embracing any new technology, we need to declare our educational goals and demonstrate how a particular technology can help us to achieve them” (p. 34). Like other learning tools, technology is only as effective as the educational goals and practice underlying its use.

Technology is not neutral; it affects the way we learn and understand our world (Healy, 1998; Postman, 1999). New technologies in education are “changing how students acquire and use information” (Scherer, 1999, p.16), and our understanding of this phenomenon has implications for educational philosophy, including learning theory and practice. For example, attention needs to be given to the instructional strategies used in concert with web-based technologies, and this must be integrated into the learning environment. The new technologies, like any other educational resource, are then used in a social learning environment with dialogues between instructors (Bransford et al., 1999) and peers.

Technology alone will not improve the quality of education, but when integrated with learning goals, skilfully interwoven within curricula, and effectively adapted into the learning environment, it can be a powerful educational tool (Bates, 2000; Kearsley, 2000; Palloff and Pratt, 1999). Integrating technology into curriculum and instruction stimulates the development of higher-order thinking and problem-solving skills (Dede, 2000; Gardner, 2000; Imel, 1998; Kearsley, 2000), and adult collaborative learning endeavours can actively be encouraged (Bates, 2000; Palloff and Pratt, 1999; Papert, 1993).

DO BUSINESS SCHOOLS UNDERSTAND THE MARKET DYNAMICS?

What are the differences among intelligence, thinking, and knowledge? How do they improve individual and organizational performance? As "what you know" becomes as important as "what you make," leaders need to understand and apply these concepts.

Organisations (profit and non-profit) are pressured to continuously rethink the way they do business and the way they add value to their customers, shareholders, employees, and society. World market pressures such as globalization; digitization; decentralization; and the capitalization of knowledge, information, and intelligence, are now the key drivers of economic wealth and are creating tremendous demands on organizations to rethink, adapt, and respond. Leaders are forced to respond to these world-market pressures by moving to organizational styles that are more agile, flexible, team-based, networked, and entrepreneurial. The move away from vertical, dominantly hierarchical systems is seen as one strategy needed to meet the demands of a complex and increasingly competitive market.

In their book, *The Individualized Corporation*, Ghoshal and Bartlett (1997) cite innovative leaders such as Jack Welch (GE) and Percy Barnevik (ABB) who believe that, "in a dynamic, global environment in which competition is service-based and knowledge-intensive, human creativity and individual initiative is a critical source of competitive advantage." Additionally, organizations need to be designed so that they are "flexible enough to exploit the idiosyncratic knowledge and unique skills of each individual employee." A fundamental challenge for leaders is to create effective systems and an organizational climate that allows intellectual capital to flourish. Intellectual capital is the sum of an organization's intangible assets. It's the know how, know who, and know what of everyone in the organization that can be leveraged to create wealth. "Intellectual capital is also a process of value creation, in addition to being an asset-it's an action, more than just knowledge," write Edvinsson and Malone (1997) a leading experts in intellectual capital. There exists a dynamic relationship between thinking, intelligence, and knowledge. Collectively, they represent the horsepower of an organization's capability to adapt, respond, and innovate. Some simple working definitions are as follows:

Intelligence is an ability or capacity to learn and to know. Most researchers would agree that in basic terms it's the ability to learn from experience and to adapt to changing environments. It also has been described as "the ability to deal with cognitive complexity" by Linda Gottfredson (2005) of the University of Delaware. I believe organizations, like people, have different levels and types of intelligence.

Thinking is a process of contemplation and reflection. It's the process of using one's mind to reach conclusions, formulate ideas, and describe what is known, according to Webster's Dictionary. In a sense, thinking both utilizes and enables intelligence.

Knowledge is content. It's the ideas, impressions, and beliefs one possesses within oneself. Both tacit and explicit knowledge assets are the result of a continuous feedback cycle of reflection (thinking), questioning, and assimilation (intelligence).

The creation of knowledge or, what Sveiby and Skuthorpe (2006) would describe as creating the "capacity to act," is crucial to corporate survival in a knowledge-intensive economy. Knowledge creation is a function of thinking, intelligence, and motivation as shown in Figure 1. Knowledge creation is a dynamic, networked process that takes place en masse each day throughout the entire organization. The byproducts of this dynamic, networked process are bits of value-added content (assets) that can be utilized to expand the organization's capacity to act. An organization's knowledge assets will grow in direct proportion to its ability to think through complex challenges and to learn. In fact, an organization's capacity to act should grow exponentially because of the cyclical and self-reinforcing relationship that exists between knowledge creation, thinking, and intelligence.

The Formula:

$$\text{Knowledge Creation} = \text{Thinking} \times \text{Intelligence} \times \text{Motivation}$$

Although this formula is not intended to imply scientific exactness in predicting knowledge creation, it does provide a meaningful framework. The multiplication signs indicate that the effects of thinking, intelligence, and motivation are noncompensating- a high score in one factor cannot compensate for a low score in another. We've all known individuals or teams with all of the intelligence (ability) in the world that could not create new, value-added solutions for the organization. Often, the individual or team lacks the collaborative thinking (process) skills needed to leverage their intelligence. Sometimes it's merely a lack of motivation (drive) that prevents individuals or groups from achieving value-added results. Similarly, individuals and teams can have fire in their bellies with a lot of passion and drive, but if their organization does not create or maintain the necessary conditions for success, they are likely to end up frustrated and unable to implement their new ideas.

What exactly are business schools doing to optimize their thinking and intelligence assets? If we are in fact in the age of brain, not brawn, the real challenge is to create smarter, more intelligent organizations that are designed to optimize their intellectual capital. As the shelf life of existing knowledge and information continues to decrease, it becomes critical to invest in systems and tools that will increase the organization's intelligence or capacity to learn and cope with cognitive complexity. Business schools will increase their capacity to adapt successfully to the future if they work to increase the effectiveness of the multiple thought progressions the thinking-that occurs everyday and if they actively seek to expand their organizational intelligence. Intelligence, it has been shown, represents a capacity to learn; intelligent organizations develop systems and processes and actively seek to create environments that enlarge their capacity to learn and respond to complexity.

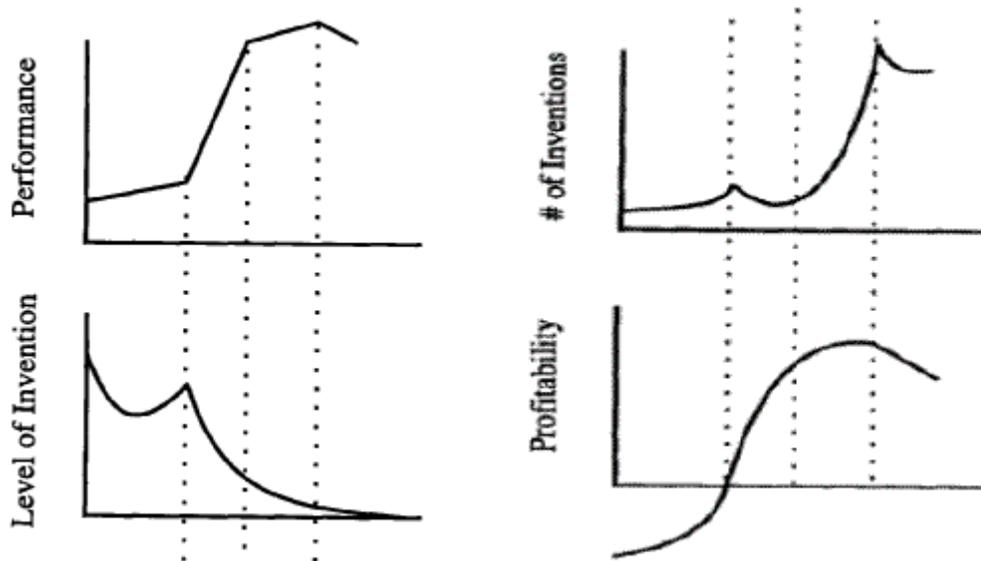
Organizations that take a holistic approach by trying to optimize their thinking processes, motivational drive, and intelligence simultaneously will be equipped better to meet a complex future with creativity, speed, and passion.

MAPPING THE S-CURVE

Macro-level evolution as a function of time can be applied to four descriptors to plot the maturity of a technology and thereby indicate the primary course for maintaining technological supremacy. This pattern of design evolution is based on a primary discovery of Altshuler: the evolution of a product or technology parallels the microevolution of biological systems (the biological s-curve). Researching data relevant to critical performance criteria of a technology, the number of inventions in this technological field, the levels of the aforementioned inventions, and the profitability of the primary resultant of the technology in question will allow interpolation and correlation of data that will indicate the resultant location on the s-curve

Evolution in stages is a macro level methodology aimed at the maturity mapping of an existing technology. The stages of the S-curve are pregnancy, birth, childhood, adolescence, maturity, and decline. Four curves plot the maturity of a technology from different perspectives: performance, number of inventions, the inventive levels of those inventions, and profitability, see Figure 1. The interpolation of these individual curves gives the analyst an indication of the technology's location on the S-curve. Understanding this mapped maturity allows strategic decisions to be made concerning the investment of resources related to research, development, marketing, and sales. Understanding maturity allows the corporation to maximize the utilization of limited resources as well as market profitability. It is for at least these two key reasons that maturity mapping addresses fundamental issues associated with corporate survival during the coming millennium.

Figure 1
Four (4) Curves Plotted Versus Time Indicate Location Of A Technology In Reference
To The Extrapolated Polynomial Fits Of Previously Studied Technologies.



These four curves plotted versus time indicate location of a technology in reference to the extrapolated polynomial fits of previously studied technologies. The data in question may be sufficient only to re-create a portion of the experimental curves indicated above. Correlation of the existing data may be accomplished by aligning the data regression with the appropriate portion of the indicated descriptors.

METHOD

One of the core research themes of this study is to examine issue of web-based education in undergraduate programs of business schools through a qualitative research perspective using a focus group approach. Morgan (1988) identifies focus groups as “useful when it comes to investigating [not only] *what* participants think, but ... at uncovering *why* participants think as they do” (p. 15). Additionally, focus groups provide rich data sources from multiple participants. A structure for the meeting is developed, pre-arrangement of meeting dates and times ensures participants and the researcher honour time commitments, and finally, transcripts of remarks are made following the meetings.

Study Participants

The study is composed of 190 undergraduate business students of both Universities (University of Ioannina, Greece and University of Winchester, UK).

Focus Group Interview

The researchers used a set of five semi-structured guided questions for the three focus groups. These are listed below:

- What is the role of web-based course delivery in learning, and what is its application in business undergraduate education?
- How can instructors develop web-based learning options for undergraduate students?
- What are the most pressing issues that you deal with as a student? (time constraints, student issues)
- What benefits exist, if any, for students? How might this affect allocation of funds for learning resources?
- What challenges would exist?

Focus group meetings were scheduled for February and April 2006 at the classrooms. Focus groups ranged from six to eight participants, with each session lasting 30 minutes. The semi-structured interview format ensured consistency such that comparisons could be identified within and across in the data analysis phase, in preparation for the final documentation phase of the study.

Preparation For Data Analysis

All of the focus group meetings were taped and transcribed in preparation for data analysis. Participants were given the opportunity to review their comments in the transcriptions. On the basis of coding from the transcripts, recurrent issues were noted and key quotations were identified. These were examined against other transcription segments, and results emerged from the three focus groups of each business department. From these, five discussion areas were identified and recommendations were made.

RESULTS

All students interviewed were without previous experience with online courses and could not compare or evaluate online courses against previous educational work.

Students had questions about how online discussion groups might work, and wondered whether video conferencing during web-based courses might assist students. They also acknowledged that there would be less opportunity for them to develop social skills with reduced face-to-face discussion.

If you're going into business you need to be able to get along with people, basically, it's the interpersonal skills, the social skills that you might lack. You might not develop into a strong asset. I think for students, who really want to get things done immediately, or at a certain time, I guess it would be really convenient for them ... but I think if you're looking at jobs and careers related to communication, you would lose a lot by doing web-based courses.

Conversation arose about the type, nature, and degree of satisfaction of the interaction between online learners and instructors, and among learners.

If you are doing group work or just interacting with the academic staff, there's a certain synergy that's gained that you would lose ... if you are going online you don't have that immediate or direct interaction with people.

Students were quick to comment on the potential accessibility to instructors, timesavings, and the effectiveness and efficiency of managing their workload. These opportunities could offer much more flexibility and freedom for adult learners.

In terms of bringing it into the public system, you can relate it to the Internet and the real economy ... An e-retailer will never replace a Wal-Mart, just like online learning is never going to replace the classroom (some students from the University of Winchester). But it can be used as a resource to enhance the learning process in the classroom.

Further, some students (from both departments) observed web-based opportunities would provide students with the research skills needed if pursuing postgraduate programs.

ANALYSIS-DISCUSSION

The three focus groups of each business department identified five areas of commonality. The remarks of students suggest the process of transition is emerging from five perspectives. In each case, findings from this study were reinforced by the literature reported at the outset of the study.

Web-Based Teaching And Learning

All six focus groups reported that web-based learning could be an effective tool for the teaching and learning process (Dede, 2000; Palloff and Pratt, 2001). It offers the potential to increase student motivation (Kearsley, 2000), and provides attributes for student convenience not often considered in traditional course instruction (Imel, 1998). Participants also experienced common concerns cited in the literature. These included the need for additional time and incentives for adequate development and instruction via the web, and instructor and administrator respondents stressed the need for technical support and training as a necessity for successful online course delivery (Cuban, 2001; Educators as Adult Learners Project Committee, 2000).

Interactivity And Online Learning

Participants from the six groups (three focus groups from each business department) indicated that those that had experience with web-based learning were positive and enthusiastic about electronic communication (e-mail and chatting). They believed that the use of these tools had enhanced instruction and learning. Moreover, several participants also identified e-mail as a tool that offered advantages that could be utilized as enhancements to further to face-to-face, instructor-student learning interactions.

Students (which had not experienced web-based applications) emphasized the need for greater instructor-student dialogue and collaborative involvement in the learning process. Care needs to be given to the unique learning needs of students as they go through the transition to online learning. There was discussion of whether interactivity in an online environment can really meet all the learning needs. To address these diverse needs, focus group findings suggested web-based courses need to have well-designed and well-managed discussion group capacity for the interactivity desired by participants. Students must be able to use the discussion boards, and they must be able to accomplish different types of discussion activities within this interactive technology. The importance of knowing how to use the discussion board and the value of interactivity to the online environment are identified by Palloff and Pratt (1999) and Bransford et al. (1999) as critically important to the online instructional development field. As well, current publications now exist (e.g., Salmon, 2002) outlining the use of technologies to create e-activities with students.

Transitional steps were also identified by preparing web pages to offer course outlines, assignment details, and more advanced training opportunities for instructors and administrators, also noted by Cuban (1999), Bates (2000), and Kearsley (2000). Using a blended combination of web-based and face-to-face instruction, as suggested by Palloff and Pratt (2001), was identified as a way to address students who may be able to benefit from features offered through both delivery styles.

Web-Based Accessibility

The study demonstrated that for some participants the convenience potentially afforded by online learning is a definite advantage. Learners indicated web-based opportunities could offer access to an increased number of adult students when learners are freed from having to attend a program at a particular place or time.

All focus group discussions dealt with access issues, from concern about prohibitive costs to a dearth of professional development opportunity. Of further concern was accessibility to computers and the Internet either at educational centres or in the home environment (Bates, 2000; Cuban, 1999). Technologically based media may respond to specific individual and group learning styles and needs, but access currently compromises the effective use of this technology.

Although students are not familiar with online courses, they identified web-based opportunities as providing flexibility in course delivery and location. The potential for high student motivation when learning enhancements were provided through computers was noted by many participants and is pointed out by Palloff and Pratt (1999) and Kearsley (2000).

Students identified benefits, with many referring to the Internet as a strong source of information and a tool for incorporating current technology into their workload. Students identified the need for new kinds of collaboration with students from other business schools, as noted by authors such as Healy (1998).

The literature emphasizes the qualities and characteristics related to the use of new web-based opportunities. This strong bond of agreement indicates a critical knowledge of educational technology as a teaching and learning tool and a familiarity with its emerging role in the future of education (Cuban, 2001; Gardner, 2000). Conversely, students who have less exposure to the theory and practice of online learning have more questions about ways in which web-based courses could meet their needs.

Participative Decision-Making

The study indicates a need for the establishment of a clear purpose for educational technology at the district and provincial levels. These decisions need to be focused on learning processes rather than expenditures on hardware, software, technical support, and professional development. Program planning and implementation will develop with the establishment and agreement of learner needs and outcomes as other authors have suggested (e.g. Gardner, 2000).

FURTHER RESEARCH

Further research in this crucial field of the evolution of e-learning in business schools is the examination of anticipated benefits and the experiences by early e-learning adopters, return on investment and expectations for the future.

CONCLUSION

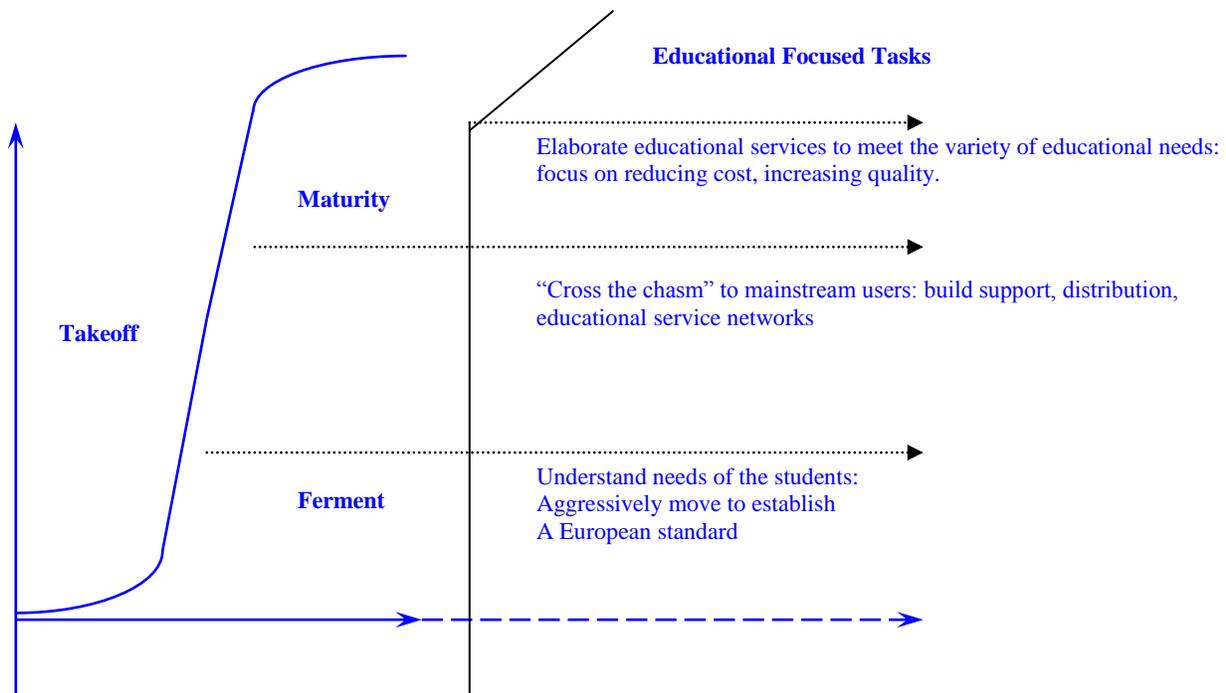
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Business schools that take a holistic approach by trying to optimize their thinking processes, motivational drive, and intelligence simultaneously will be equipped better to meet a complex future with creativity, speed, and passion.

Based on the above analyses we can produce the following conclusions:

- Value is created when new technology is matched to student need.
- But student needs change: as the technology evolves existing students develop new needs, and in addition the technology may appeal to new kinds of students, with new kinds of needs.
- Understanding the structure of student needs may be particularly important at times of potential discontinuity, when existing students may reject new technologies (for excellent reasons!).

Recommendations: Some Challenges Evolve Over The Life Cycle Of E-Learning Evolution



We would like to thank the 190 undergraduate business students of both Universities for their participation in the focus groups.

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