Transitional Developments in Online Courses and Programs: Theory and Practice

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Summing-up: January 27-28, 2005

Pre-Discussion Paper

A chief purpose of this discussion paper is to share information with IFETS readers on the recent advances in the design of courses and delivery structures of online courses. The online course is an evolving educational offering and significant progress has been made by online universities and traditional universities offering online courses in terms of improved formats and protocols. Also, the discussion will strive to engage diverse online educators in academic debate and discussion of the character of online courses, as evidenced by the distinction between not-for-profit and for-profit approaches to e-education.

Not-For-Profit Online Courses

1. The Learning Objects Movement

Stephen Downes (2001) has written perhaps the seminal article on Learning Objects, which are as described by Downes and as currently used, the logical extension of familiar programming concepts used by software engineers. As Downes stated, "Educators need to apply design techniques learned long ago by the software industry, and in particular, they need to learn a concept called Rapid Application Design" (Downes, 2001, p. 9). Downes asks that an online course be viewed as a piece of software with a need to develop reusable content in the form of self-contained objects of content, marked by generic identification monikers or metatags, that can be openly shared, searched and used by course designers. The immediate rationale for learning objects, as defined here, is that they would save developmental time and money.

Ultimately, their success relies on course designers' willingness to share content, free of charge, with other designers and on the feasibility of creating sharable components of content that would have relevance and applicability. The use of learning objects for online courses was to be made viable through the use of IMS [Instructional Management Systems] and SCORM [Sharable Courseware Object Reference Model] standards for learning objects. As Downes, stated for example, "In order for this to work, the atlas in Turkey and the course in the United States must define similar objects in a similar manner" (Downes, 2001). Many writers have attested to the difficulty of the use and reuse of learning objects (Friesen, 2004; Sicilia & Garcia, 2003; Bratina, Hayes, & Blumsack, 2002). Further, to date, there has not been a large scale implementation of learning objects as a basis for online course creation.

2. U.K. eUniversity: A Contemporary E-Learning Case Study

It will be informative to briefly review the rise and fall of the online university known as United Kingdom e-University (UKeU). The British government invested 62 million pounds ($113 million) to develop their commercial venture which began in 2000 and eventually failed in 2004. UKeU worked with over 20 universities in the United Kingdom that offered approximately 40 degree programs and had 900 students by the fall of 2004. (Garett, 2004).

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An analysis of UKeU does reveal how a promising online educational plan can fall apart even when it has strong financial resources. Garrett (2004) cites five major problems with UKeU's plans:

- Timing- it began in February 2000 based on a fear that American online universities would capture the international student market and they must act quickly to prevent this from happening. The dot-com crash drove away potential organizations which might have invested in their educational venture.
- Focus- the UKeU business model stressed using an online delivery model but there was not adequate evidence of a stable student market for their product. It is estimated that over one million students take online classes in the US but the international market projections are much smaller.
- Branding- there were marketing problems that created confusion over value of the UkeU's degrees because advertisements focused on convenience which is not a central feature of higher education in the United Kingdom .
- Platform-UKeU decided to create their own platform and not to use either Blackboard or WebCT which are popular course management systems. This drained valuable financial resources from the company which limited their ability to recruit new students.
- Impatience- it did take three years to actually launch their product which restricted recruitment of students and hindered attracting private financial investments. UKeU operated only a year which is not adequate time to build an elearning organization.

The platform was built in-house and was promoted as the best course management system in the world. Garett (2004) observes that

> "There is generally a significant gap between the pedagogic conception of instructional designers and those of the average faculty member, to say nothing of the average student (even at the graduate level). This suggests a tension between the amount of investment in the new platform (said to be around £20/$35 million) and the rather limited marketing pay-off in terms of student recruitment" (Buy or Build, paragraph #3).

The UKeU's failure does raise serious questions about the feasibility of government sponsored eLearning initiatives that can be competitively developed and implemented. UKeU does join a growing list of organizations that have failed at their efforts in having online degree programs such as NYU Online and Scottish Knowledge. Garrett (2004) relates that "massive up-front investments, lack of private sector cash, low enrollments, brand confusion, and incomplete platform meant that by 2004 UKeU was doomed" (Impatience, paragraph #3).

For-Profit

3. Blackboard, WebCT, et al!

At the forefront of the for-profit advent of online courses are integrated course delivery packages and integrated learning management systems. For example in a recent article four designated integrated course delivery packages, Ed2Go, Elluminate, LearnLinc, and Wimba, were reviewed and evaluated on several criteria: cost, complexity, control, clarity, common technical framework and features (Annis, Hensel, Lunstrom, & Jones, 2003). Likewise, four integrated learning management systems, CentraOne, IntraLearn, Lyceum, and Silicon Chalk, were recently reviewed and evaluated (Clark, Cossarin, Doxsee, & Schwartz, 2004). Nevertheless, the two major course delivery systems in the current online market are the well known Blackboard and WebCT. Both of these platform giants have made significant developmental progress in online course capabilities and formats.

World Wide Web Course Tools, WebCT, has produced a newly released version called WebCT Vista Academic Enterprise edition in 2004 (Morningstar, Schubert, & Thibeault, 2004). This new version expands the flexibility and features of WebCT by adding more elaborate text uses, personal file storage, shared online folders, and shared curriculum content capabilities. It allows the import of learning objects from multiple sources and numerous tools for course creation and conduct. The costs of WebCT have risen to a level of hundred(s) of thousands of dollars (US), based on the many needs associated with licensing and hosting the platform (Morningstar, et al.).

Probably the most popular course delivery platform, Blackboard, has created a new and more extensive program. The basic Blackboard package has had a start-up cost of around $30,000 for a host server, along with an annual charge of under $10,000 for yearly operations. Blackboard has offered course cartridges for several years in two formats: standard and open access. The cartridge method supplies course content created by a supplier to course managers, and the cost is passed on to students in the form of textbook-like fees, ranging from $10 to $25 per

student. Upon receipt of the cartridge fee, the student receives a "key" code that allows the cartridge to be downloaded into the Blackboard shell (Blackboard, 2001).

As of August, 2004, Blackboard has added a Content System that, like WebCT, expands its capability to offer new tools and content services. The stated purpose of the Content System is to allow Blackboard users to make use of the world's geometric expansion of digital content and to facilitate the sharing of it. Unlike the not-for-profit view of "sharing," Blackboard's comes at a cost. The Core Content Repository allows Blackboard users to create, import and export content throughout the entire owning organization. The Repository contains the following components: Virtual Hard Drive, Learning Content Management, e-Portfolios, and Library Digital Asset Management (Blackboard, 2004). The Content System contains a Learning Objects Catalog, such as pictures, Flash movies, and PowerPoint presentations that can be shared among different classes. The use of the Blackboard Content System includes an additional cost of approximately $35,000 a year, however; thus elevating the overall costs of using the product.

4. University of Phoenix Innovations: rEsource, E-CaD, and Virtual Organizations

A majority of the University of Phoenix Online courses have utilized rEsource which is a collection of electronically delivered learning resources which are designed to support individual course objectives. Students and teachers have access to the resources which contain a syllabus or Unimodule, course readings or articles, Power Point Presentations, Web based links to specific resources for a class and links to other student support materials such as the University online library which includes 14,000 journals and over 20 million full text articles (UOP Fact Book, 2004). Students can access UOP's ebook collection of entire textbooks involving titles from a diversity of academic disciplines Electronic textbooks that can be read online or students can print the material. Additionally, UOP has been integrating simulations into their business classes which provide students with opportunities to study business practices and decisions. (Muirhead, McAuliffe & La Rue, 2001).

Recently, the University of Phoenix (UOP) has launched a new online educational design model know as E-CaD (Enhanced Curriculum & Delivery Model. The University of Phoenix strives to be innovative in their online design and delivery of online education. UOP educators and administrators have been studying how to make their delivery model more efficient without sacrificing academic rigor. A real issue became one of scalability because the institution had to find a better way to accommodate more students. The student population involves over 227,000 students who participate in on-ground and online classes. As a for profit organization it does have to be sensitive to stockholder concerns about the potential for future growth in their online degree programs (Muirhead, 2004a).

UOP has frequently promoted their small class sizes in their literature. Swenson (2001) states "the low student/faculty ratio and class sizes that average 13 students facilitate active learning and collaboration, encourage time-on-task, and foster high student-faculty interaction" (p. 5). University officials relate that the majority of today's major distance education schools often have at least 20 or more students per class. Therefore, the curriculum changes represent a major response to market factors which have help to prompt these changes. E-CaD is an instructional format that has been created to enable instructors to facilitate a class size of 20 students (Muirhead, 2004a).

The University has been testing various online delivery systems and E-CaD represents the culmination of their research and pilot studies. It is a creative design that has retains an emphasis on essential student skills and subject knowledge but enables instructors to handle larger classes. E-CaD has the following key features:

Student Academic Expectations
- students actively participate with substantive remarks in online discussions 4/7 days a week (previously 5/7 days)
- final week of class has optional student participation in online discussions (previously students participated all weeks of course)
- weekly summaries are optional (previously these were required)

Faculty Academic Expectations
- provide detailed syllabus (change only in specific E-CaD details)
- share two weekly online discussion questions (previously 3-6 questions)
- freedom to assign weekly online discussion questions to learning teams (previously dialog questions created only for individual students)

- share weekly lectures can be optional if course has weekly overview of material in rEsource
- respond to student comments 5/7 days in online discussions (no change)
- share weekly grade reports with students (no change) (E-CaD, 2004; Muirhead, 2004).

The E-CaD model is currently being phased into the various online classes which will require careful modification of the curriculum to fit this new format. UOP facilitators are naturally a little anxious about increased class sizes and the impact that it will have on their work load. The author has taught several online classes (US history & film studies) under the new model and has found that students are actually sharing at least five days a week. Also, grading papers and responding to students online has been quite manageable and no more time consuming. Instructors must be careful to sustain good online presence with more students in their classes. The key is to daily share relevant messages in the main newsgroups and relate to all of the students during each week of class (Muirhead, 2004a).

An upcoming innovation to be released by UOP online is the establishment of Virtual Organizations designed by subject matter experts and practicing professionals to create realistic work environments, in a clinical, online setting. UOP's Virtual Organizations will target four areas: business, schools, healthcare and government. The main thrust of UOP's progressive development, in addition to adjustments in its course format, is a wide ranging and increasingly sophisticated course presence on associated web sites.

5. Online Instructor Concerns

Teaching online is becoming more common with larger numbers individuals working in distance education institutions or teaching online classes at traditional universities. Muirhead (2004b) notes the informal observations from the University of Phoenix teachers about the various academic challenges that they and their students face in their online classes:

Teacher challenges
- Student plagiarism of assignments
- Students with weak writing skills
- Providing adequate feedback for papers
- Managing learning team problems
- English is not their first language
- Unrealistic grade expectations

Student challenges
- Lack of basic computer skills
- Inconsistent grading of papers
- Writing quality papers
- Effectively handling the action research project

Conclusion

There are important questions that need to be addressed about online education that challenge today's educators. Distance education is an evolving entity that continues to change as technological advances provide more sophisticated delivery of information to their students and as providers learn more about the market realities that they face.

Suggested Questions for Discussion and Debate

1. What role do market forces play in the design and delivery of online courses? Why?
2. Can governmentally funded projects compete with market driven products in providing usable platforms for online courses?
3. Will Learning Objects achieve the vision of uniform codification and widespread sharability? Why or Why not?
4. Will for-profit systems, like Blackboard and WebCT continue to dominate the market for online courses?
5. How are web sites used to supplement online courses?

6. What innovations for online courses, other than those mentioned in this paper, are currently available? Where are they available and why?
7. In what direction should the progressive development of online courses evolve in the next five years?

[This list of questions should not be considered an exclusive list of topics for this discussion.]

Post-discussion summary

1. Learning Objects

While the original intentions of this discussion were focused on the seven questions listed in the pre-discussion paper, the dominant influence that captured the thoughts of most readers related to learning objects. Learning objects were seen to be at the heart of the topic of online courses, and contributors were very diverse in their interests related to them. Mark Nichols countered the theme of the pre-discussion paper that the case of learning objects involved much more than the concept of sharing of content, pointing to issues related to building consensus among developers to promote their use. Terry Anderson picked up the theme of a need for developmental work with learning objects with respect to standards and accessibility, as well. Stephen Downes similarly cited several reasons that developers were moving slowly in producing learning objects, due to a wide diversity of new and existing tools for online courses and to an unfavorable environment for the reuse of learning objects. To the contrary, Downes asserted that the current situation favors creating new learning objects, not the reuse of existing learning objects.

Mitchell Weisburgh supported the notion that market forces are not favorable to the learning objects movement. He stated, "First, there are low barriers to entry, both in terms of creating software tools and also in terms of creating content." The existence of many competent producers of online course content and the competition of the market are seen as inhibitory. H. von Brevern (George) saw the success of learning objects as being tied to the challenge of matching them with course activities, indicating issues of course design. Further, George stated that researchers must find common standards and nomenclature for the learning objects movement to succeed.

James Kariuki introduced the topic of alternatives to learning objects in current developmental initiatives of online courses. He believes that Expert Systems incorporated within larger Courseware Management Systems offer more stable and reliable ways of presenting content. Muhammad Betz added to the theme of alternatives to learning objects by suggesting that repositories of general learning materials hosted at web sites for general accessibility, like the MERLOT project at http://www.merlot.org/home/MaterialView.po. Fridolin Wild supported the existence of alternatives to the learning objects view with mention of the resource project, EducaNext, that he described as, "a multilingual, academic exchange portal, where members of higher education, research organizations, and professional communities can share, retrieve, and reuse learning resources." Fridolin qualified his comments by stating that repositories would not replace learning objects, but that learning objects would generate repositories for their dissemination, in support of the importance of carefully marking and tagging of learning objects for reuse. He suggested two strategies for reuse: whole and partial, related to the perceived fit for the teacher-student situation.

A theme that emerged in this discussion of learning objects is that they were not fully understood in a general sense and that they represented a line of development that did not have a promising future. Alfred Bork, for instance, asserted that learning objects were not a correct direction for inquiry, and called for full course analyses in which approaches to learning are carefully evaluated. Muhammad Betz drew an analogy between the learning objects movement and shareware, that genre of software that is not quite ready for the market, but which is passed around by a small clientele of enthusiasts. Richard Dillman concurred that given the enormous diversity in the overarching e-environments, the learning objects movement is unstable.

2. Closing

What is remarkable about this discussion on transitional developments in online courses is that for all practical purposes the IFETS forum had little to say except on the topic of learning objects. Why? Learning objects are nebulous entities that professionals feel they need a good knowledge of. Yet, under scrutiny, they seem to hold less promise than existing trends in research imply. The theme of the authors of the pre-discussion paper that the market was overwhelming the learning objects movement held up. Another emergent theme of the discussion is that there is great diversity in contemporary online courses, a diversity that apparently does not indicate clear norms of application.

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