Duquesne University (Pennsylvania) has committed to the electronic delivery of an MBA (Masters in Business Administration) program to Northern Jiaotong University in Beijing, China. This paper describes the process of preparing a course for electronic delivery, along with related course preparation issues. The university's partnership with University Online Publishing (UOL) and UOL's "virtual campus" courseware are discussed. Component modules of the UOL Course Author's Reference Guide are summarized, including course structure, learning objectives, glossary, syllabus, references, help, test/quiz, and gradebook tools. The following course planning guidelines provided in the UOL Course Author's Reference Guide are listed: (1) determine the appropriate instructional technologies to use in the course; (2) determine the appropriate structure for the course; (3) plan the screens; and (4) author the content of the course. Concerns related to distance education are considered; these include effective organization and packaging of course materials to optimize the learning process, balance between structure and flexibility in curriculum design and course delivery, and evaluation of the distance learner and the distance education program. (AEF)
PREPARING A COURSE FOR DISTANCE EDUCATION DELIVERY

Dr. Thomas A. Pollack
A.J. Palumbo School of Business Administration
Duquesne University
Pittsburgh, PA 15282
(412) 396-1639
pollack@duq.edu

ABSTRACT

Many institutions of higher education are plotting strategies to enter the competitive arena commonly referred to as Distance Education. Distance education is the process of delivering learning or instructional resources to a remote location through the combined use of information technology and traditional delivery methods. At my institution, we have committed to the electronic delivery of an MBA program to Northern Jiaotong University in Beijing, China. The process of preparing a course for electronic delivery involves great attention to detail as well as a significant commitment of time. The process, along with related course preparation issues will be discussed in this paper.

INTRODUCTION

The School of Business at Duquesne University has agreed to deliver an MBA program to Northern Jiaotong University in Beijing, China. There was a great deal of uncertainty as to how program delivery might best be accomplished. We are in the third year of exchanging professors for a four to six week summer session. The cost of sending professors to do on-site delivery is prohibitive. The demand for a U.S. MBA in China is tremendous, thus creating a huge market potential. The students are very bright but economically very poor and cannot afford U.S. tuition rates. Their educational programs must be subsidized, often by American corporations with facilities in China. Computer availability and communications capabilities in general are not at all what we have grown to expect. The nature of the teaching process is more lecture-based than interactive. Thus there are numerous problems to overcome -- with finances, teaching methodology and technology.

There are countless technological options to consider for distance education delivery (Dede, 1996). After much thought and deliberation of alternatives, we decided that the best approach for our program was online coursework, and the best delivery vehicle was the Internet. The following is excerpted from a white paper prepared to explain the distance education delivery system provided by University Online (UOL), the company we have partnered with (UOL Publishing, Information and Insight...).

Although distance learning is not a new concept, the advent of the Internet and World Wide Web has created the capability of providing distance education online. Using existing computers with Internet access, worldwide educational offerings are delivered to the desktops of learners anytime and anywhere. Unlike other forms of distance education -- satellite, computer-based training, video conferencing, etc. -- electronically delivered online instruction has a broader scope. The interactivity of Web-based delivery offers simulations, problem-solving exercises, links to information resources, and the ability to work in collaborative environments, and participate in real-time discussions with other learners and instructors.
For the reasons stated above, as well as forecasts that indicate tremendous demand for online adult education, we decided that, for our purposes, an online Internet-based instructional program would be best. We then set out to choose a partner to deliver our courseware.

EDUCATIONAL DELIVERY PARTNER

For our distance education initiatives, we considered various options and delivery methods, including interactive video (using a University-owned V-Tel system), and decided to pursue an online delivery methodology that is capable of delivering interactive courses through the World Wide Web (Web) or corporate intranets. We felt very strongly that the only economical means of providing education to Beijing, China is through an online educational program. This program will possess the following characteristics:

- It will be available 24 hours per day, 365 days per year.
- It will not require travel.
- It can be readily updated.
- It offers flexibility in course design.
- Correspondence between faculty and students can be established through electronic mail or "chat".

We ultimately signed an agreement with a "for-profit" organization called (University Online) UOL Publishing, Inc. of Mclean, Virginia (www.uol.com). UOL can be reached by email at Info@uol.com. UOL is traded on the Nasdaq National Market as UOLP. UOL Publishing, Inc. has been a leading edge publisher of interactive web-based courseware and technology-enabled education for more than ten years. The Company introduced its first Web-based demonstration course in November 1995 and its first revenue-generating Web-based course in the spring of 1996 (UOL Prospectus). UOL prides itself in providing cost-effective, high-quality, user-specific courseware and one of the world's largest online courseware libraries (UOL Publishing, Inc. Information and Insight...). The Company offers its courseware primarily to part-time students and working adults in partnerships with academic institutions and business partners (UOL Prospectus).

UOL Publishing promotes its courseware offerings as a "virtual campus" (UOL Website, Take a tour...). The "virtual campus" is intended to offer all the familiar features of a physical campus with the affordability, availability, and accessibility offered by online training. Courses and training programs become part of this "virtual campus" as a result of strategic acquisitions and partnerships being forged with businesses and universities. Courseware and training programs published on the "virtual campus" are available to subscribers at the fee agreed upon by the owner. Truly, the subscriber can "shop" the virtual campus for what he or she considers to be the "best in class" offerings in any given area. The "virtual campus" concept includes a large courseware library, and delivery, registration and tracking systems and it enables any business or academic entity to quickly create an online, interactive system of education using the Internet or existing intranet. The "virtual campus" is made up of the following:

The Registrar Building is where students can sign up for available courses. Administrators can add new courses and admit students into existing courses. Upon registering, the student receives email to verify acceptance into a course.
The Classroom Building allows the student to enter their registered courses or check their grades for any course. Administrators and instructors can enter courses in progress, check students’ grades, download progress reports and administer courses.

The instructor (in the Faculty / Administration Building) can build customized courses and tests, and the student can leave messages for instructors or attend faculty office hours.

The Information Building is where administrators and instructors can post news, announcements and frequently asked questions.

The Commons Area is the area where students can “chat” with other students or professors (UOL Website).

UOL believes that its online courseware combines convenience, affordability, self-pacing, standardized curricula, individualized tailoring of courses, immediate performance measurement, and a high degree of student-teacher interaction. These characteristics are designed to address the educational needs of part-time students and working adults, which constitute a rapidly growing segment of the education market (UOL Prospectus).

COURSE DESIGN TOOLS

UOL provides an extensive Courseware Construction Set (CCS) that is a web-based editor that guides one on the construction of a course for online delivery. It is an assembly tool, not an authoring tool in that it does not assist in the development or design of content. UOL provides access to a “blank” course and a means of uploading modules, lessons, text, graphics, audio and interactives. Each course is assigned a unique URL to access the “blank” course and CCS tools. To use the CCS, one must be connected to the Internet at all times. The CCS features an extensive Course Author’s Reference Guide (UOL Course Author’s Reference Guide). In the next segment of this paper, I will briefly summarize the purpose of each of the main component modules of the Reference Guide.

The Course Structure Editor allows you to create, modify, and delete elements of your course structure.

The Learning Objectives Editor allows you to associate particular pages and test questions with the objective.

The Glossary Editor allows you to create, modify, and delete the glossary terms and definitions within your course.

The Syllabus Editor allows you to create the syllabus for your course.

The References Editor allows you to create a page of URLs, books, articles, and other resources that your students can access as references for the course.
The Help Editor allows you to generate a page where you can provide guidance to your students in the form of general instructions, answers to frequently asked questions, and any other useful course-related information.

The Test/Quiz Editor allows you to create, modify, and delete the test and quiz elements within your course.

The Gradebook Editor is a reporting tool that allows the instructor and students to check the status of test scores, attendance records and progress on the Learning Objectives.

As the reader may ascertain, the modules are designed to address each of the major instructor concerns during course design. There are other modules and countless other features that cannot be addressed in the space of this paper.

PLANNING

Careful course planning is critical for success in online instruction. Although estimates vary, there seems to be some consensus that successful online courses require roughly three times as much time and attention as a course delivered in a conventional manner (Guernsey, 1998). The following four guidelines are provided in the UOL Course Author's Reference Guide.

Determine the appropriate instructional technologies to use in the course. This requires decisions on how the course material is to be presented – text, graphics, audio, exercises, tests, etc.

Determine the appropriate structure for your course. This step requires that the course be divided into modules, lessons and pages. It also suggest some detailed planning about such things as pre-tests, post-tests, and interactive exercises.

Plan the screens. This step requires that you complete a storyboard to outline elements and layout and also define the order of the screens. This is a critical step in organizing your course.

Author the content of your course. Here, any graphics, multimedia, or audio files must be determined and appropriately placed.

CONCERNS

Distance education is a different experience for most educators venturing into it for the first time, because the distance students have different needs than our traditional undergraduate and graduate students. In order to create effective learning experiences for distance students, course delivery strategies must be developed that cater to any special needs of this group of learners. Specifically, if they are non-traditional adult learners, they may be somewhat unfamiliar with academic practices. They may also lack the typical support systems (such as tutors) and other resources typically found on campus. However, they are generally considered to be a disciplined group of learners (Guernsey, 1998). Our primary objective, however, should be to add educational value -- not to achieve economies of scale. Technology actually subtracts educational value if we simply try to imitate our regular classroom behavior without changes to curriculum or classroom organization (Kinnaman, 1995). This represents my greatest concern – how to effectively organize and package course materials so as to optimize the learning process.
In "Structural Issues in Distance Education (1996), Kearsley and Lynch focus on the balance between structure and flexibility in curriculum design and course delivery. Structure refers to the organization and delivery of learning events and activities, and is dictated by the syllabus. Generally, the more dialogue in a course, the less structure, and vice versa. The authors encourage a balance between structure and flexibility and summarize key points as follows:

Structure includes:

- The development of a detailed course syllabus and study guide;
- Well-defined instructional activities;
- Fixed time schedule for course completion dates and assignments; and
- A breakdown of large classes into small sections, each with a teaching assistant to help with grading and provide student feedback.

At the same time, flexibility is maintained by:

- Making almost all coursework project-oriented so students can make adaptations to their interests and needs;
- Encouraging students to develop their own style of leadership;
- Permitting students to use email and conferencing capabilities to pursue their own interests; and
- Allowing students to have access to course materials anytime.

A delicate balance between structure and flexibility must be achieved to be effective in the instructional process.

Another of my concerns is evaluation of the distance learner and the distance education program. Evaluation is defined as the process of determining the merit or worth of a product, process, or program (Hawkes, 1996). Evaluation is frequently difficult in face-to-face learning environments and is compounded in distance education. We are certain, however, that evaluative information can provide timely feedback and constructive criticism to the designers and developers of a distance education program (Ibid.). Certainly, in this regard, we will want to evaluate technical criteria. But more importantly, we must evaluate instructional criteria, including learner achievement, interactivity, course structure and flexibility, and the quality and availability of learning resources. Finally, in a distance learning environment, we must also evaluate organizational criteria -- everyday support and use of technology (Ibid.).

CONCLUSION

The Internet is a tremendous resource for the effective delivery of online educational courses and training programs. It has the potential to re-shape distance education programs as we have come to know them. The Internet provides an ease of accessibility that simply does not exist with other forms of distance education delivery.

Mapping an overall strategy for the delivery and preparation of a distance education program is a very time-intensive process. Many considerations must be taken into account. A vehicle for delivery
must be secured. The course design process must be carefully managed and must maintain a balance between structure and flexibility. A good deal of attention must also be given to the evaluation process as it relates to learning, courseware quality, technology, and delivery.

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