From Earth to Surf: Deploying Traditional Content in an E-Learning Environment

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Proceedings of the 15th Annual NACCQ, Hamilton New Zealand July, 2002 www.naccq.ac.nz

ABSTRACT

In the past few years e-learning technology components have unquestionably become more stable and dependable, but we still hear relatively few success stories. Why? Many e-learning initiatives are based on fundamentally wrong assumptions that inevitably doom them to failure.

There are significant and consistent differences between the successes and the failures, and there are distinct differences that separate the winners from the losers. What is the common approach among the winners?

A clear focus on content as the means to a successful outcome. It is almost impossible to get exactly the right mix of content, delivery and technology to use at the beginning of an e learning initiative. Today there are a numerous possible technologies and different approaches.

An established framework. Without a framework the process becomes a lengthy study of how to reuse traditional content and methodologies rather than focusing on what is relevant to an e learning platform. The important decisions that need to be made become overwhelming because no one knows where to begin.

This confusion halts the development of many e learning initiatives. Many projects can even become terminal at this stage. The trap becomes spending energy thinking about how to reproduce the classroom experience that we are all familiar with, rather than focusing on how to use technology to create a new model for a better way of learning.

Currently the classroom paradigm ranks far and away as the primary means for teaching. Unfortunately even some of the worst traditional classroom methodologies are being carried across to e learning platforms. Take for example the death by overhead syndrome, which refers to the experience in which learners are subjected to one-way information dumps delivered using PowerPoint slides and overhead transparencies. Given the preponderance of this teaching practice, it should not come as a surprise that 'death by overhead' has gone virtual. Not the ideal platform for success.

The solution would appear to be blended learning, consisting of a combination of instructional technology e.g. video, CD-ROM, web based training etc, with actual practical tasks to reinforce learning.

1. INTRODUCTION

In the search for methods that can be best used for deployment of traditional course content and

teaching materials, we are faced with a vast number of choices. The process involved with selection of technology often leads to a loss of focus on the needs of students. The newest technology is of no value to a student who is struggling with installing a package from a CD ROM or, who sits twiddling their thumbs while it downloads on a slow Internet connection.

Technology frustration is high on the list of reasons why students fail to complete open and distant learning (ODL) programs. To the student, whose main focus is the learning process, the more seamless and transparent the delivery method, can be made, the more successful the outcome will be. Keeping this in mind, what issues need to be considered when planning an ODL program?

2. THE TECHNOLOGY

E-learning solutions require a combination of organisational readiness, relevant technology solutions, accurate analysis of learning requirements and appropriate course content.

Of the key elements mentioned in the preceding paragraph, the selection of suitable technology solutions often proves the greatest hurdle. Technology not only plays a major role in deploying the e-learning platform to end users, but will also be used in creating course content, communication with the ODL student, and storage of data associated with enrolment and assessment activity.

One thing we know about technology is that it isn't perfect. ODL programs present a number of interesting challenges to resolve when it comes to technology. How we manage these issues can make a difference in learning quality and subsequent success or failure of the program.

Technology can be divided into three major areas:

2.1 DEVELOPMENT OR ADAPTATION OF COURSE CONTENT

E-learning content can take the form of an almost endless variety of formats, including Web-based training courses, online documents, supplementary printed documents, multimedia presentations, video, audio, virtual hands-on labs, product simulations and animations, and even Internet-enabled tutor-led training.

There have been many efforts at helping tutors choose the best instructional media for specific applications. The result is that there are numerous books and articles about media selection. Whichever one you choose, it is most important that you clearly identify your course tasks, objectives, and requirements, including the learners' and tutors' needs. The technology should become seamless in the delivery of the course and not obstruct the learning process.

When you have made a decision, find an organisation that is using that technology, talk to the IT department, actual students and faculty members. What do they like (and dislike) about the product? What would they change? What technical problems occurred, and were they solved?

Many organisations find that the price of initial technology purchases can be exceeded by the price of installation, configuration, and customisation, without adding the costs of upgrades and ongoing support once in use.

Using new technology may be as intimidating to some academic staff members as it is to their students.

2.2 DELIVERY OF COURSE RESOURCES AND MATERIALS TO THE STUDENT

The involvement of your IT department is important in planning for software and hardware purchases. They will be responsible for implementing and maintaining the final solution and will need to be consulted early in the process.

Be mindful of the end user in your choice of technology. For example, when developing online learning materials, some people choose to show off technological capabilities such as video and audio, even when these do not add value to a course. In other cases, video and audio might augment the learning experience, but learners may not have access to computers with multimedia capability.

The selection of instructional media and tools should reflect their accessibility to learners. A distance education program should incorporate a technology base that is appropriate for the widest range of students within that program's target audience.

2.3 SUPPORT AND ADMINISTRATION

These key aspects of ODL programs are often neglected in the initial rush to convert traditional

content and delivery and join the 'e' revolution. One of the most crucial aspects of providing programs to remote users is communication and support

This tends to be the area that can make the most difference in online learner retention and persistence. Strategies here are surprisingly simple, yet powerful in helping students learn online.

Provide consistent, regular feedback, both to individuals and the group as a whole. This is helpful in setting a good example for ODL learners, particularly those new to this type of learning.

3. CONTENT

What is the best way of porting traditional classroom teaching resources to an open or distant learning (ODL) environment?

The importance of interaction simply can't be overstated. ODL students, just like classroom students, need to be actively engaged in learning activities in order to help maximise their understanding and the real-world application of their newfound knowledge.

Many distance learning students do not realise the importance of their participation to a successful outcome. They feel that distance learning is passive learning and will just sit back and listen, read, or, watch.

So how can you, as a tutor or designer, find creative ways to initiate interactivity into learning content and assist remote students to have a successful experience? The framework that follows can be used as a foundation for any distribution method or blending of methods that you may use.

3.1 FIRST STEPS

The process begins by selecting the audience you want to reach and the exercises you want to teach. The key steps in the process are:

1. Identify the target audience and learning locations.
2. Select the course you want to adapt and review existing interactive exercises.
3. Identify all instructional methods used (exercises, role play, group collaboration, simulation, etc.)
4. Identify all presentation methods to be used (video, CBT, print, audio, etc.).

3.2 CONSIDER THE DIFFERENCES:

As you plan ODL activities keep in mind the disadvantages that are apparent when comparing distance learning with classroom activity.

- Lack of face to face contact with the tutor.
- Limited opportunity to network with peers.
- Apprehension regarding use of technology in the learning-interactivity process.
- Uncertainty about the expected level of interaction.
- Absence of instant feedback and positive reinforcement.
- Problems in phrasing questions in a way that will elicit the required response.
- Hesitancy about requesting clarification of learning content or tutor instructions.

3.3 FOCUS ON THE STUDENTS

In our efforts to convert traditional material to an e-learning platform we often overlook the most important issue, the student at the receiving end of our instruction.

- Provide clear instructions on how to use any equipment or software applications.
- Endeavour to cater for different learning styles.
- Ensure exercises and instructions are written in a clear and precise manner. Ask someone who knows only a little about the subject to proofread instructions and complete the exercises.

3.4 ASK YOURSELF THESE QUESTIONS

Because you must find ways to connect with students you may never see face-to-face, you need to develop formats and strategies for interactive exercises and ensure a mixture of different types of exercises to retain students' interest.

- How can you impart what the tutor expects of participants? i.e. at the completion of this exercise you should be able to .....
- What is required to impart awareness in students as to how the lessons learned in each section or exercise can be applied to a real world situation?
- Are the exercises both enjoyable and beneficial to the student?
- Are students aware of the help options for each of the exercises (help files, reference books etc.)?

At least 30%, preferably nearer to 50% of the course content should be made up of interactive activities such as hands on exercises or case studies.

Plenty of visual aids, print material and links to relevant web sites should be included.

4. THE OUTCOME - SUCCESS OR FAILURE

Top implementation successes from around the world all include these factors:

Identify all Stakeholders:

Identifying and meeting with management and other stakeholders who have a vested interest in your success may result in them becoming your biggest supporters as you work to provide your ODL solution.

Form a Project Team:

Recruit members from IT, end-users, developers, academic staff and managers to circumvent traditional organisational hierarchies and faculty barriers. If your project team cannot physically get together, consider forming a 'virtual team'. This accomplishes a dual purpose, in that it may demonstrate to team members some of the difficulties associated with working and communicating remotely.

Implement a Pilot or Trial program:

Recruit students with a range of computer skills and equipment and elicit feedback from them regarding their experiences with the technology.

Be Prepared:

Don't roll out the course and begin enrolling students until you are completely sure that everything is in place. This includes support, assessment and student result processing.

Provide Excellent Support:

Research shows that the presence of a committed faculty member or support person in any technology-enhanced course is the key link in ensuring learners stick around to complete online courses.

Despite the variety of teaching and training opportunities available via technology, it is important to remember that technology doesn't teach or train people by itself; people teach and train people using technology as an educational delivery tool.

Put yourself in the learner's seat and look at how you can create successful learning outcomes. When the student succeeds, everyone wins.

REFERENCES

Cisco E-Learning Accessed April 2002 http://www.cisco.com/warp/public/10/wwtraining/elearning/plan/success.html

DESIEN Accessed December 2001

Distance Education Systemwide Interactive Electronic Newsletter http://www.uwex.edu/disted/desien/upfront.htm

Mantyla, K. (1999). Interactive Distance Learning Exercises That Really Work! Alexandria, VA. American Society for Training & Development

Smith, J. M. Teaching with Technology Accessed March 2002 http://adulted.about.com/library/weekly/aa061001a.htm