

A “TROJAN HORSE” APPROACH TO TEACHING ABOUT ONLINE DESIGN

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Abstract

A range of skills and knowledge are required for the development of quality educational material for online delivery. These include an understanding of instructional and multimedia design issues as they relate to the online environment. Although academic staff becoming involved in online education recognise the need for training in the technical skills involved in creating educational web sites, this paper argues that they do not recognise the importance of these design skills. This paper describes the inclusion of training in these areas as part of a basic introductory skills building workshop.

Keywords

online education, staff development, multimedia design, web usability

Introduction

The development of an online learning environment requires a range of skills and knowledge. Technological skills, ranging from relatively simple skills such as creating web pages using an HTML editor to complex programming abilities, are immediately obvious as an essential ingredient for producing online material. Another essential for any course is the subject matter, and Passmore (2000) argues for recognition of the importance of the content expert, in the form of the faculty member, as a valuable resource in the move to online education.

These two ingredients are possibly enough to create an online course. However, there are other factors to consider if the course is to be an effective learning tool. The importance of developing new pedagogical approaches to make best use of the opportunities and limitations of the web has been the subject of many recent studies (e.g. Ellis & Phelp, 2000; McLoughlin & McCartney, 2000).

Another important area to be considered is what Jakob Nielsen refers to as web usability (Nielsen, 2000). If learning is to be delivered online, it is important to maximise the students' ability to access it, through sound design principles.

Because of the range of skills required, the most effective way to produce online educational material is to use a team approach bringing together content experts, educational designers, multimedia designers and computer programmers to each contribute their expertise (see Keppell, 2000). However, in practice, online courses are often developed by a single person – usually the lecturer responsible for delivering the course.

Previously it was the case that this single-handed approach to online development was the sole province of “lone rangers” – people with a reasonably high ability and motivation to master the necessary technology. This person will usually invest a reasonable amount of time in learning to use the technology, but often is unaware of the design issues.

The use of software packages such as WebCT, which provide pre-programmed modularised online tools and features, makes it relatively easy to create online courses. This enables a much greater number of academics to become web authors, and may be seen by some universities as a way of increasing their online presence. However, the issue of good design must still be addressed.

Background

Central Queensland University is a regional university with a large proportion of distance students and multiple campuses, including international campuses. The focus of CQU is on flexible learning opportunities and online delivery is seen as an increasingly important element of that.

Beginning in 2000, there has been increasing use of WebCT as a tool for the development and delivery of online courses. There are currently 72 courses either being delivered or under development using WebCT. The Educational Design and Multimedia Unit (EDMU) has developed some of these courses using a team approach while others have been designed and developed primarily by faculty members with varying degrees of support from EDMU staff.

As part of the support for academics developing WebCT courses, a program of workshops is being developed focussing on different aspects of using WebCT for course development and delivery. The initial workshops, first delivered in February 2001, aimed at developing a general familiarisation with the WebCT environment and basic skills in managing courses that had been developed by EDMU.

In initial workshops, staff were enrolled as students in a sample course to gain an understanding of the WebCT environment, the functionality that it offers and the range of tools that are available. It was also intended to give staff the opportunity to experience an online learning environment as a student. For many academics this is a new experience (see Bennett, Priest & Macpherson, 1999).

There has been a high take up rate of these workshops with all offerings being oversubscribed. Over seventy staff members participated in workshops in the first six months. Anecdotal evidence indicates that staff are prepared to devote some time to learning about WebCT because they see it as being a technology that they may be required to use in the near future.

In contrast, forums, such as regular lunchtime seminars, devoted to investigating design issues are quite poorly attended. These tend to attract a small core group who already have an awareness of the importance of good web design.

It was felt that while the need for training in the technological skills of using WebCT was recognised by teaching staff, there was little awareness of their need for training in the area of good design for online courses. However, the complementary nature of these two areas suggested that they could be taught together. It was decided to use the technical skills training as a Trojan Horse – a gift that we anticipated would be welcomed by staff members interested in the development of online courses with information about design issues hidden inside. Staff would then be exposed to the important areas of educational and usability design, without them having to actively seek this information.

Course Design and Content

In designing a sample WebCT course for the introductory workshop, principles of educational design and user-centred web design were introduced in two ways: by using examples of the principles of good design in the development of the course and also by using the principles as the subject matter of the course.

Instructional design information was based on CRAFT, an online tutorial for designers of distance education material (Duncum, Priest & Cleal, 1998). Although some shift in the pedagogy is required to adapt the principles of distance education to online delivery, the principles chosen for

inclusion in the sample course were fairly general and were considered to be appropriate for online material. Additional information was added relating to online interactivity.

Other modules of content looked at general web design issues such as an appropriate writing style for online material, navigation design, visual design and site structure. Technical issues such as the differences between computer systems, download times, plug-ins, etc., that can affect the students' ability to access different types of materials were also discussed.

The course was designed to require a time commitment of no more than four to five hours to make it acceptable to academic staff with high demands on their time. For this reason, the amount of content was limited. The information provided was not detailed, but rather intended to raise awareness of the issues and general principles. References and links to more detailed information were provided. The sample assessment items, such as an online quiz, also related to the content area.

Modelling Design Principles

In addition to providing this information as the content of the course, care was taken to ensure that the same principles were adhered to in the design of this course. One of the teaching strategies modelled in this course was to ask the participants to reflect on their learning experience. This included drawing their attention to particular design features used in this course, such as the use of universal navigational elements. The participants were then asked to use the communications tools included in the course to share their views about the usefulness, or otherwise, of these elements.

Practical examples of various features were given and the participants were encouraged to reflect on the issues that emerged when using them. For example, a short video was included. Participants were asked to download the necessary plug in, even if they already had it installed, before viewing the video. They were also reminded that the time to download the video would be substantially longer for a student on a modem. They were then asked to consider the values of the video and the inconvenience involved in viewing it.

Feedback

Although the formal evaluation of the training workshops has not focussed on the content matter, informal feedback has been promising. This has included requests from participants to have continued access to the material after completion of the workshops, as an aid to the development of their own courses.

In both face-to-face and online discussions during the workshop, there has been considerable comment about the design of the course and the principles discussed in the content. Many of the comments indicated that the participants had not previously considered the particular issue under discussion. In some cases the participants disagreed with design decisions that had been made in creating the course. It was felt that this was a positive outcome for the workshop, as it indicated that the participants were thinking critically about the issues raised.

There has also been feedback from participants who have since developed their own courses indicating that they have incorporated design principles suggested in the sample course. A more formal evaluation of the extent to which this is happening is planned.

Future Development

The sample course was initially used in the fixed timeframe of a workshop. It is now being redesigned to be available online for staff to visit at a time that suits them. The workshop activities that lead the participants through the many features and tools that WebCT offers will be retained, but broken down into discrete modules to give more flexibility to the user. Facilitated workshops will continue to be available for those who require a higher level of support.

Later workshops in the program will focus on creating courses in WebCT and the use of specific features. Information relating to design issues will be included more overtly in these workshops. For example, the principles of an appropriate writing style for online text will be discussed as part of learning the skills to add content to the course.

Conclusion

Although professional training targeting instructional multimedia design issues would be immensely valuable to all academic staff involved in online teaching, experience indicates that only a small number of the target group perceive a high enough need to devote their time to it. However, by including exposure to these principles in complementary skills-based workshops, an awareness of their importance can be developed.

The anecdotal evidence indicates that using the principles of design as the content of a sample course used in a skills-based workshop has reinforced the usefulness of the course as an exemplar of online design. There are indications that the course has succeeded in raising awareness of the principles of good design for online material. It is anticipated that this will be further supported by the adoption of these principles in the future development of online courses by the workshop participants.

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