

Multimedia Advice, Guidance and Counselling on the Web: a prototype learner's guide.

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Abstract

The importance of providing a service which offers educational advice, guidance and counselling is widely acknowledged as a key to students' academic success and personal development. The UK's Open University (UKOU) aims to provide a support service which puts the needs of students at the centre and traditionally a variety of media have been deployed in this provision. Whilst the new technologies are having a considerable impact on course production and delivery in open and distance education, the suggestion that these media can also be used effectively to provide learners with a support service to meet their needs is one which is still in its infancy. In this paper we discuss our use of web-based streaming multimedia as an appropriate and effective medium for a student support service. We will illustrate our discussion through the demonstration of an interactive guidance program, which is currently in production as an experimental prototype.

THE SYSTEM IS UP FOR EVALUATION AT:

[HTTP://KMI.OPEN..AC.UK/PROJECTS/STUDENTADVISOR/](http://kmi.open.ac.uk/projects/studentadvisor/)

Introduction

In this paper we aim to show some snapshots from our on-going work in web-based multimedia for student support. The prototype under discussion, *the 'Learner's Guide to the Open University'*, is a demonstrator produced to show what is possible with streaming multimedia technology for student support services. In developing a support service that can be accessed by students using the web, our intention has not been to replace the service currently in existence. Rather we are aiming to provide an *additional* service, which exploits the new media and offers online advice, guidance and counselling opportunities for those growing numbers of students and enquirers who use the Internet. The *'Learner's Guide to the Open University'* offers a service using a new medium but the underpinning philosophy and approach of the student support provision remains the same as that for the existing support service for UKOU students.

Advice and Guidance in Open and Distance Learning

The UK Open University (UKOU) offers open access (at undergraduate level), open and distance higher education. Students can choose to study single courses or can group their course credits together for specific qualifications such as undergraduate or postgraduate certificates, diplomas and degrees. With such an open and diverse programme of learning opportunities available, it is crucial to provide a service that will support the large numbers of potentially disparate learners and meet their needs.

UKOU students are supported by a system known as 'supported open learning'. Guidance and educational counselling are key aspects of this service. Advice, guidance and support for

students are available at every stage of a student's career: at entry, during study, between course and at the end of the study programme.

The support service comprises:

- enquiries and admission guidance for students prior to enrolment,
- guidance about course choices and study planning,
- careers guidance to enable students to link study plans to their career interests,
- support for students with special requirements,
- advice about and opportunities for study preparation and the development of learning skills
- monitoring and support of student progress.

(Bailey, Brown and Kelly, 1996)

The ultimate aim of the '*Learner's Guide to the Open University*', is to offer a service which covers all aspects of support as outlined above. In line with the rest of the support service, the prototype program also adopts a student-focused approach, which puts the needs of the students at the heart of the guidance service. Using interactive multimedia, it provides a base for informed decision making through pathways that enable users to ask and answer questions of themselves and access appropriate information.

Technically, the Learners Guide uses streaming multimedia - in which audio, video, and support imagery, including some interactive exercises are sent over the internet to the remote user's web browser. The user of this prototype requires a multimedia personal computer with a reasonable connection (at least 28Kbps) to the internet. The software arrives at the student's machine (either PC or Macintosh) in their web browser (either Navigator or Explorer) on demand, as it is required. The animations, interactions, audio and video used in the prototype are supported with browser plugging such as Apple's Quicktime[™] and Macromedia's Shockwave[™].

The pros and cons of using web-based interactive multimedia for student support

The Web has already proved to be a key medium for reservations and access to information about the UKOU. Within the first few months of the OU website going live, over 300,000 hits were recorded on the courses and awards pages and users are accessing the web in ever increasing numbers to request brochures and to reserve courses. It seems essential within this medium to provide not only adequate information but also access to advice and guidance to help enquirers make informed course choices. Enquirers may need to consider issues such as what studying with the UKOU involves, how supported open learning works, study time requirements, the significance of academic levels, preparation options, credit transfer, residential schools, careers, special needs and what is the role of the tutor. They should also be enabled to gain access to further sources of advice including links to advisors in UKOU regional offices.

In addition to the support needed for enquirers and new students to the University, more of our continuing students are expecting on-line facilities for all features of their academic life. The UKOU was founded on a multi-media teaching, learning and support system which has developed as new technologies have become available. A variety of media including print, television and video cassettes, radio and audio cassettes, face to face Telephone and correspondence tuition and guidance have been exploited to teach and support student learning.

In the past few years, the new technologies such as computer-mediated communication, electronic mail, the Internet and CDROM are becoming widely used to produce and present courses. It is inevitable that students, many of whom are already 'on line' in order to study their course, will wish to use these electronic media to access information and support services from the University.

The new technologies are being used increasingly by a variety of providers to offer guidance and counselling (Offer, 1993; Hunt, 1994; King, Engi and Poulis, 1998; Murphy and Mitchell, 1998). Some concerns have been expressed that human relations will be mechanised through the use of computer-mediated information and communication technologies, however, there is evidence that the new technologies can be used in such a way as to enhance human interaction (Tait, 1999).

There are also other issues concerning the use of the new technologies for advice, guidance and counselling that should be considered. Of major importance for some is that of access. To use this sort of medium requires a modem multimedia personal computer and not all of our current or prospective students will have this access. This certainly is an important issue - but not a reason to do nothing. The ideal would be to provide a flagship solution alongside a robust accessible service to all. Our intention in producing this service alongside but not instead of the existing services should mean that those students who are unable to access the new technologies will not be disadvantaged.

We aim to use the new technologies to engage in dialogue and interact more effectively with enquirers, students, corporate clients and Associate Lecturers. This sort of technology can be used as stand-alone or integrative, in that it can provide a platform for organising information provision; form-filling; procedure following; informed course choice; registration; making regional and local contacts; and communicating with advisors. This doesn't obviate the need for printed materials: the *'Learner's Guide to The Open University's* intended as an addition to the range of tools available. However there are clearly some things that are very difficult to convey using conventional means and the use of this new medium provides us with new opportunities. It opens up the range of interactive distance work that we can engage in, to enable us to do things that we have previously only been able to do face-to-face. For example, we have always found it difficult to convey the time/workload involved in UKOU study and one third of our students who withdraw from courses cite time as a problem. Our approach offers opportunities for interactivity for time-management exercises which can be quite difficult to achieve 'at a distance' using more conventional media.

The focus of our work is on guidance and student support in which technology is used appropriately - not as a gimmick. The program should help the user to:

- Consider appropriate issues at appropriate times
- Follow pathways according to needs
- Access relevant information to make informed choices
- Understand decision making process
- Increase ability to become an independent learner

A Multimedia Interface

The obvious and most accessible interface to information is a book. In the advice context, paper can be used very effectively to present a set of readable textual notes that can help the reader to think carefully about key issues. However, in a televisual world a range of other media can also appropriately assist textual notes. Accessing information on the internet often involves mixing the medium with the message - if we are to be successful in helping the student to think carefully about these issues (rather than simply skip over text to get it out of the way quickly) then we need to engage them with an a medium that holds there attention and interest whilst they get the point!

The Learner's Guide to the OU prototype aims to be attractive and user-friendly, holding the user's attention and encouraging exploration through good use of colour and design as well as interesting content, including the use of case studies and illustrative examples of student experience to help users gain an appreciation of their task. After a considerable early prototyping phase including the- use of focus groups to examine the interface issues (Fage et al, 1997, Scott et al 1997) our chosen Interface currently consists of a range of photoreal contexts, including a University office to which interesting and useful items and people can be added. The navigation bar at the bottom of the screen enables the user to move around the program with ease and to see where they are within the program at a glance. A note-pad is provided with the system and is intended to be used by the user at any time to take notes. It also contains a number of activities that the user can work through. The portfolio so produced can be printed off as a 'take away' product of the users interaction with the system. The system can also insert elements into the users note-pad during the interaction - to help the user keep a record of where they have been.

What does the prototype cover?

A Learner's Guide to the OU is a web-based interactive multimedia program which uses streaming media including audio and video. Users can follow pathways in a linear fashion or move from one area to another through links within the program. It is also possible to join the program at different entry points. A sample of the prototype is presented here using illustrative screenshots.



Figure 1. The user's desktop view

The user is encouraged to initially organise their thoughts via the desk shown in figure 1. The coffee cup visible is intended to be communicative - in that it offers them the chance to chat to someone about their interests. In due course we propose connecting this with a live chat session involving tutors and students. In the current prototype it simply lets the student compose an email message to be sent to the advisory team. The brochure lets the student hear about some of the stories of other students and their experience of the Open University (see figures 2 and 3). The notepad lets the user select an issue to enter a discussion with a virtual advisor (see figure 4). On the bar at the bottom (and available through the system) are: links to the Open University web pages; links to the students own note-taking; a link back to a central location; access to a map which will show the student where they are within the scope of the system; and a range of navigational options to let them skip forward and back in the system.



Figure 2. The Index Page of the Brochure

In the brochure the user can see a range of student stories presented that raise a number of the key issues that they may be concerned with. In figure 2 the student has rolled the mouse over the first student to see that "Dave" has overcome some physical difficulties in order to study. In figure 3 the user is mid-way through a story from "Vincent" (having clicked the link picture two along from Dave in figure 2). Here the story concerns Vincent's interest in gaining promotion in his current teaching job by studying an MA in Education. As throughout the prototype, the user hears the story as audio with streamed interactive animations. The student stories are all artificial (cured from a range of real student experiences) and designed to raise a wide range of issues that the user will be able to identify with. This student perspective is a natural complement to the advisors perspective presented in the office environment (see figure 4) which is accessed from the desk notepad (in figure 1).

In figure 4 we see a scene within the advisory office. The advisor is represented as an animated figure to the left. Clicking on the advisor will always reprise the last section of audio and animation. The central whiteboard carries most of the animation usually simple cartoon illustrations which hold the users attention whilst the advisor is speaking, or, as in this case which present a range of further issues that the user may like to consider. The right hand segment of the office scene is where supplementary material is presented - this is usually a video or a related story from a students perspective. In figure 5 the advisor is discussing the use of visual and audio notes in open learning - so the user has clicked upon the TV which has rolled in through the door to offer a segment of relevant video. In this particular screenshot we see the video having paused the advisor and taken over the exploration of this particular issue.

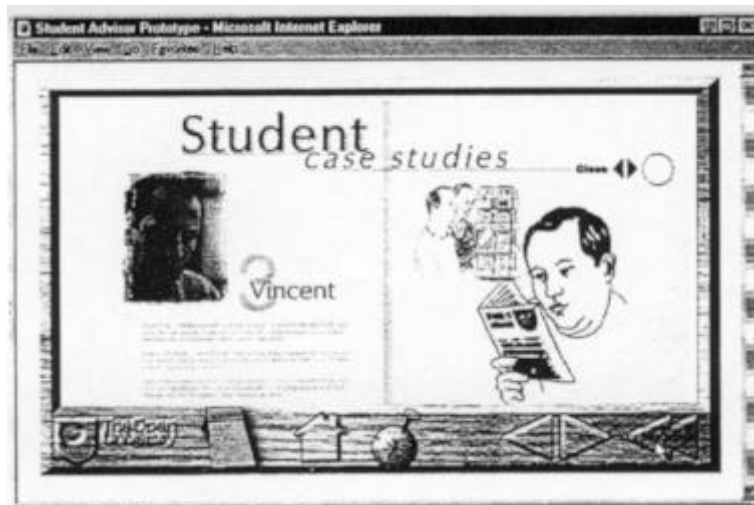


Figure 3. Vincent's Brochure Story



Figure 4. In the Advisors Office

Whilst the brochure stories are intended to raise issues that the user may find echo their own needs, the advisor interaction is designed to be much more conversational. It is intended that the user should feel that they are having more of an interchange with the advisor - in that they can choose a question or issue for the advisor to address. The system encourages the user to think through making choices, seeking information, and exploring the issues, however it is certainly the case that for most of the time the user is relatively passive. The model used has much more potential for interaction. One good example of such an interaction is our use of portfolio exercises. In figure 5 we see a sample exercise that has been launched into a separate window from a choice point discussed by the advisor during a section on time management. Whilst we can tell the user about appropriate time management issues, the most effective way of getting them to think through the issues is to have them work through some examples. In figure 5 the advisor has asked the user to drag the bottom icons onto the blank time cells which

represent their available study time in an average week. In this case the user has (wisely, according to the advisor!) chosen to use the little time they have available on Wednesday to organise their notes in preparation for a large chunk of study time that they tend to have on Thursday. In this example, the user has yet to decide quite what to do on that day!

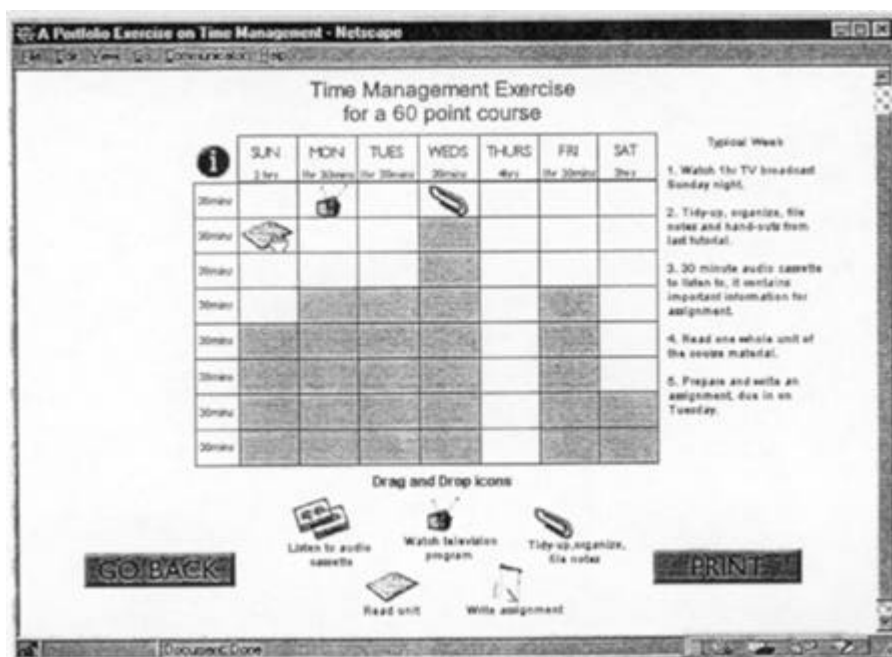


Figure 5. A portfolio exercise on time management

The key point to make here is that a written note about the effective use of time (along with other helpful advisory jewels) can all too easily be considered banal and cheerfully skipped by a busy user. However, the effective use of appropriate media (here motivating audio with animations, and ideally some simple interactions), can really help the user to engage with the advice!

Evaluation

Evaluation has been an on-going feature of the project. Initially a range of alternative interfaces were prototyped and piloted with focus groups, including at an international open and distance learning conference (Fage et al, 1997). The scripts used in the multimedia sections have also been quality control reviewed by a range of regional advisory staff. Now that the prototype is fairly stable and demonstrable we are well into the user testing phase. We are collecting feedback directly from the web prototype, and are in addition conducting a range of semi-structured interviews around the use of the prototype with enquirers, students, associate lecturers and regional centre staff.

This approach does not, obviously suit all users:

"I tend to find with the internet that having pictures of, for instance, a classroom or a blackboard, etc. can be a bit condescending and often to do with the programmer having fun. Why not give the information in a straightforward way?"

However, the majority of feedback collected so far has been very strongly positive overall, with existing students appearing to be just and enthusiastic as inquirers.

"It is very user-friendly. "

"The idea of an interactive timetable is brilliant.

"The use of voices rather than long chunks of writing on a computer screen is good."

"Excellent. Esp. as interactive and able to answer specific questions in a non-threatening way. "

Even when asked to focus on the worst bits of the system users were still surprisingly positive and tended to criticise the system for being, if anything, too compelling.

" Our phone bills could be high!

Future

The current prototype phase will be completed during summer 1999. Further -work is required to explore how such a multimedia prototype could be effectively integrated into the University support systems. Moving from a prototype such as this to a robust delivery system that will properly support a wide range of users via a wide range of systems and fully integrated into the wider range of existing media already deployed is, potentially, a major enterprise (Scott et al 1997). However, it is widely agreed that as the technical specifications of the internet improve and as users' home and work will become more integrated with personal computing. In this world systems such as this will become even more compelling! They will certainly become more accessible and improve in quality - and no service (at all!) can afford to ignore the potential of this medium. This experiment has just begun to explore this potential.

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