The Homer Project

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Abstract

The Homer Project is research into the viability of multimedia as a distance teaching medium for undergraduate courses. The project has taken part of the Open University A295 'Homer: Poetry and Society' course and converted it into multimedia on a CD-ROM and will be assessing its effectiveness in 1998.

1 Introduction

The fundamental objective of the Homer Project is to research the viability of multimedia as a distance teaching medium for undergraduate courses. The project began as a Joint Information Systems Committee New Technology Initiative Multimedia Demonstrator Project to establish the viability of multimedia as a distance teaching tool, but has since developed into a research project to implement and evaluate teaching with multimedia in an undergraduate course in the Faculty of Arts of the Open University (UK). The aim of the research project is to replace some of the teaching materials traditionally used in an Open University course with multimedia delivered from a CD-ROM and to evaluate its effective in terms of both teaching and learning.

2 About Open University courses

Open University undergraduate courses are unlike courses taught in other 'traditional' universities by means of lectures, seminars, essays, hopefully tutorials, maybe practical work and examinations. In the Faculty of Arts of the Open University lower level courses typically consist of a variety of materials in a variety of media. A study guide links these together and takes students through the other materials and provides a calendar of study and activities to be undertaken on a week to week basis. Study guides also tend to contain graphic materials or advice and tips which do not easily fit into other parts of the course materials. Audio tapes, video tapes or broadcast video are integrated with printed matter, so a student might be instructed by the Study Guide to listen to an audio tape at a particular stage in the course. These media have the advantage over traditional lectures because they can be played at any time, rewound, stopped, fast forwarded or paused, unlike a lecturer. In some courses audio and video are used in a much more interactive and innovative way.

Short video sequences will be related to plans or sections for example, or students will be asked to stop a tape and write a response to a question set by the presenter or narrator. An additional benefit is the possibility of using video to present information and images which are otherwise inaccessible to students, for example video footage of excavation at Troy. Students will also have set books to study, these may be primary or secondary sources and they are augmented with supplementary texts and readings along with reading lists. The set texts are in some case pre-existing commercially available texts, but they may also be texts written especially for the course by lecturers at the Open University or external consultants or reprints. These texts are commonly published and commercially available separately form the course itself (e.g. Emlyn-Jones *et al.* 1992)

2.1 How courses are taught and learnt

Typically much of the course involves self-directed study, using learning guides. Students usually follow a study calendar which paces their work load and is related to a learning curve. The study process commonly involves reading or watching video tapes or listening to audio tapes then doing an exercise related to the activity. Exercises are often thinking and writing down a response. These are followed by a discussion of the exercise which is designed to ensure the student has grasped the vital points and reinforces what has be learned. In addition to self-directed study students also have tutorials. Students are supported, as close to their homes as possible, by Associate Lecturers who provide personal guidance and also run tutorials where perhaps a dozen students will work together in a group.

An important part of both teaching and learning is the Tutor Marked Assignment (TMAs). This is often an essay question but may also involve other assignments such as comprehension, observation, or analytical problem solving. TMAs are often linked to

tutorials both in their planning and follow up. TMAs are marked by the Associate Lecturers and written comments and supplementary teaching are returned to the student by correspondence. A sample of these are double marked to ensure a maintenance of standards across the country. Courses are typically examined by continual assessment of TMA performance and final assessment by examination.

2.2 About the course A295 Homer: Poetry and Society

The Homer project has produced multimedia teaching and learning materials which relate to the second level course A295 Homer: Poetry and Society. Placing the course at second level means that students will probably have completed a first level introductory course covering a variety of Arts disciplines and may have studied other courses at second level in the Department of Classical Studies or the Faculty of Arts before taking A295 Homer: Poetry and Society. The course is an interdisciplinary study of the Poetry of Homer, 'Homeric' archaeology, i.e. late bronze age Aegean archaeology, oral culture, Homer, society and culture in Classical Greece and the subsequent reception of Homeric texts up to the twentieth century.

3 About the Homer Project CD-ROM development

The Project is a collaboration between various parts of the Open University. The academic input is provided from the Department of Classical Studies in the Faculty of Arts. Editorial work and much teaching design has been by Peter Wright an editor in the Faculty of Arts. The software has been designed and implemented by the Centre for Educational Software of the Academic Computing Service by Joel Greenberg, Ian Every and Niamh Quigley. The video and audio was produced by Tony Coe and Mags Nobel of the BBC Open University Production Centre along with some teaching design. The Design Studio of the Open University performed the graphic design of the interface and controls. Evaluation will be performed by Jan Rae and Ellie Chambers of the Institute of Educational Technology of the Open University. The CD-ROM is therefore a large team project, and although the roles have been compartmentalised above there has in fact been a large degree of crossover between personnel and roles with, for example software developers contributing to pedagogic design and academics developing software.

The project has been funded by the Joint Information Systems Committee New Technology Initiative and the Office for Technology Development of the Open University.

3.1 The Platform

The software has been designed to run on a platform of a minimum of an IBM PC compatible computer with at least a '486 processor, 8MB RAM, 4x CD-ROM, 640 X 480 resolution graphics in 8-bit colour, and a sound card. The operating system required is Microsoft Windows 3.x or Microsoft Windows 95. The specification was decided as a realistic extrapolation from the data collected from a survey in early 1995 of the computing equipment owned, or accessible to current Open University students which indicated that nearly 75% of students had access to a PC running Windows and 23% had a CD-ROM drive (Taylor and Jelfs 1995). This might seem to be a rather low specification for 1997 but it realistically represents the sophistication of computing equipment upon which the CD-ROM will be used. Current 'state-of-the-art' systems do not offer any paradigm shift, only higher resolution and greater colour depth graphics and faster performance at a greater cost.

The software has been developed with Assymetrix Multimedia Toolbook v.3 and 4 and now will be released with Multimedia Toolbook II. In addition to this Microsoft Viewer was used for text handling since Toolbook is limited to 256kB of text in a single block.

Altogether the software will be c.250 MB of multimedia, the bulk of which is graphics and digital video.

3.2 Scope and use of the CD-ROM

The Homer Project CD-ROM is designed to replace weeks 8 to 14 of the 32 week course which are covered in 'Learning Guide 2: Framing the questions, Poetry, Archaeology and the Trojan War'. In addition to the CD-ROM students will still use the 100 minutes of video and 5 audio tracks associated with this part of the course as well as attending tutorials. The work done in this six weeks involves reading the first 12 books of the Iliad and its companion text; studying heroic values and society; investigating the sites of Mycenae, Tiryns, Lefkandi, Old Smyrna, Troy and the Troad; studying Schliemann; and investigating the relationships between the poetry and the archaeology. The CD-ROM will effectively replace the printed materials for a part of the course,

although the students will also be provided with the usual materials as a backup.

3.3 Let's have a look at some of it

There are two basic routes through the multimedia. The primary route is a structured set of exercises for each of the six weeks of the course. Each week is divided into a balanced set of activities which the student is expected to work through. On the main interface each week can be accessed directly by the controls across the top of the screen (Fig 1).

Figure 1. The main menu with weekly activities across the top and unstructured access to activities across the bottom.

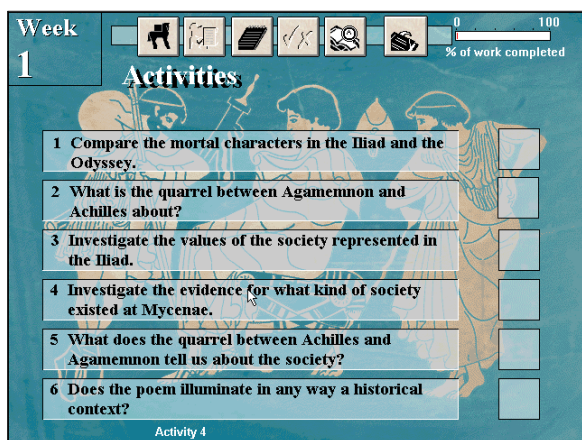Clicking on one of these takes the student to a menu of activities for each week (Fig 2).

Figure 2. Menu of activities for week one. A click on an activity will take a student directly to that activity.

This provides a brief description of each activity which can be clicked on to go directly to that activity.

The box to the right of the description shows a tick if the activity has been completed previously. Across the top of the screen the first button returns to the main interface; the second to the activities list for the current week; then a button to open a dedicated notepad; then a button to show a student's progress in the form of x % of current activity completed in y minutes, this is augmented by the scale on the right showing the percentage of that week's work completed; the next button searches the texts on the CD-ROM and the last button saves a student's progress so that a subsequent session can be continued from the point at which it was left. Each activity begins with a screen of standard details (Fig 3), an introduction, prerequisites for the activity, the aims of the activity and some advice about completing the activity. The prerequisites are often in the form of references to materials in other media, for example watching video tape sequences, or reading books of the Iliad. This the stage at which the teaching and learning are concentrated and it is simply not enough to read the screen and click on the buttons. If the text hasn't been read the activities cannot really be completed successfully.
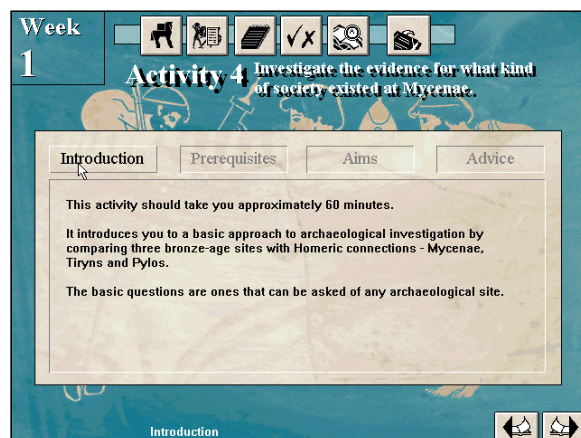

Figure 3. Each activity starts with a standard screen showing a tabbed dialog box.

Individual activities are usually in the form of a question which requires a study of a text or a graphic (e.g. a plan) or a digital video clip or a combination of these to work out an answer. Answers are typed in to a personal notebook which the student builds up through the weeks (Fig 4).
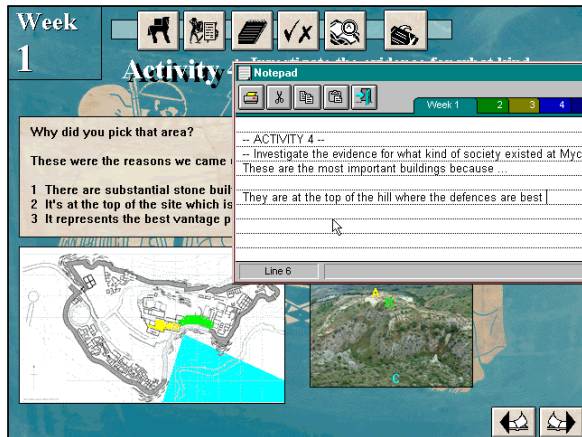
179-3

Figure 4. Part of a multimedia activity with the note pad.

The note book is structured in weekly chapters and some of the text, usually the direct question asked in the activity, is entered into the note book automatically. A log of text searches made by a student while developing an answer is also entered automatically (Fig 5).
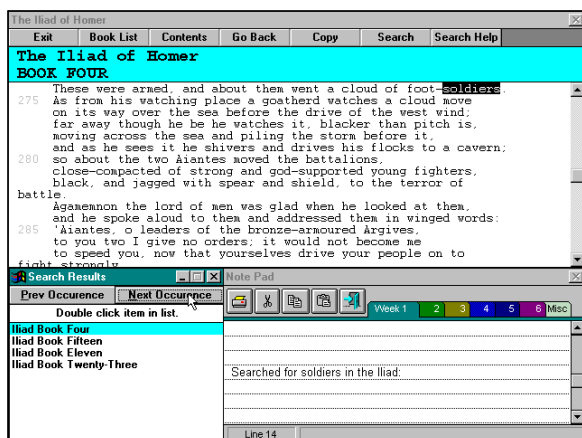

Figure 5. The results of text seaching with the note pad at the lower right of the screen.

A student can add notes to these automatic entries or delete them while writing an answer. This process is analogous to the note taking that student's using other OU teaching materials are encouraged to make. The notes are used for revision and preparing Tutor Marked Assignments. There is no automatic parsing of the text to provide some feedback to the student according to their responses. Instead, a discussion of the answer is provided on-screen and in some cases a model answer is provided. A student is encouraged to then go back over the notes and amend them as necessary.

The second route through the multimedia is not structured and may be accessed via the buttons at the bottom of the main interface (Fig 1). The first button on the left takes the student directly to the texts of The Odyssey or The Iliad, which can be read and searched. The second leads to the 'library' which contains the course texts (e.g. chapters of Emlyn-Jones *et al.* 1992), some of which are hyperlinked to the text of the Iliad. The next button leads to a 'skills' section which contains exercises on literary skills such as identifying epithets or archaeological skills like plan reading. Some of these exercises form prerequisites to the weekly exercises. The next two buttons lead to databases of site plans and information and Images of museum objects from some of these sites. The final button is labelled A-Z and forms a combined glossary and contents list. On the extreme right is an Exit button.

4 Evaluation

The Homer Project started as research in to the feasibility of using multimedia to deliver distance education and so evaluation is an important aspect of the project so that we can determine if the teaching we are trying to do is being effective. The project has already undertaken a preliminary evaluation of the work so far to obtain feedback on design of the pedagogy and interface. However, this was done through questionnaires and interviews with students who had already taken the A295 course and so were already familiar with the subject matter of the course. The current evaluation strategy is to test the multimedia teaching materials in a 'live' way — that is with students who are studying the course for academic credit.

A group of 12 students will be selected from volunteers among those who register for the course. These students will have a tutor assigned to them to advise on using the CD-ROM and any problems which might arise. These 12 students will be the core of the evaluation group, they will be: interviewed by telephone about their previous use of computers and their attitudes to media. This group will be personally interviewed about the course and also observed using the CD-ROM. They will also complete a questionnaire. The tutor will also be interviewed and student work, in the form of a TMA will be studied to ascertain what use has been made of the CD-ROM in assessed work. A control group will be selected from the remainder of the students taking A295 and they will fill out a questionnaire on their impressions on the course. The Tutor Marked Assignment of the group using the CD-ROM will be contextualised with

reference to this control group, both of which will be assessed by the project in addition to the normal marking and monitoring procedures. This comparison will enable us to see how students have used the multimedia in producing their assessed work and whether the multimedia has changed their approach to the assignment. A final phase of evaluation will be a monitoring of the exam performance of the multimedia students and the control group.

5 Outcomes

The students will be using the CD-ROM during March and April of 1998 and the evaluation reports will be complete by Spring 1999, after the course has finished for that academic year. I hope to report on what happened in CAA 99 in Dublin. The project hopes that the students who used the CD-ROM will have benefited from the course, received the best marks and enjoyed their studies — time will tell. If this research trial is successful one possible outcome is that the CD-ROM may in the future become an optional means of studying part of the A295 course. Typically Open University courses have a life span of 10 years, and so A295 is scheduled for renewal or retirement in 2003. It's too early to tell what the future of A295 will be, but the Homer Project will have provided plenty of information about whether multimedia will be a part of that future.

Bibliography

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