Using Internet to Enhance the Teaching and Learning of Music Technology at Griffith University Gold Coast

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Abstract

This paper describes the first phase of a year long project (July 1995 - July 1996) that highlights the use of the internet as a teaching tool in the area of music technology - in particular the teaching of MIDI / Sequencing. Four separate cohorts have been established, each with its own characteristics.

Keywords

ASCILITE '95, internet, music technology, MIDI / Sequencing, teaching and learning

1. Reasons for incorporating internet technology as a teaching / learning tool

The use of computer technology has become a vital part of the teaching process in this particular area given the fact that MIDI / Sequencing is a computer based activity and all of the available resources are computer based.

Every attempt has been made to accommodate student access. The use of intensive mode teaching, printed support material (also available on the recently established ftp site), unlimited access to the internet and ongoing availability of teaching staff via electronic mail assists students (in this case predominantly part-time) in achieving the success they require. Morgan (1995, p.3) highlights the advantage of internet based subjects -

> One advantage that students have when using computers and taking courses that are available on the internet is that such classes can be very convenient in the respect that the student can get on the computer from home.

The first cohort of students (Gold Coast post graduates enrolled in the Graduate Diploma in Film and Television Music) consisted of 11 students with a varying range of experience and understanding. An experience survey was conducted electronically to ascertain the background of students (see Figures 1 and 2).
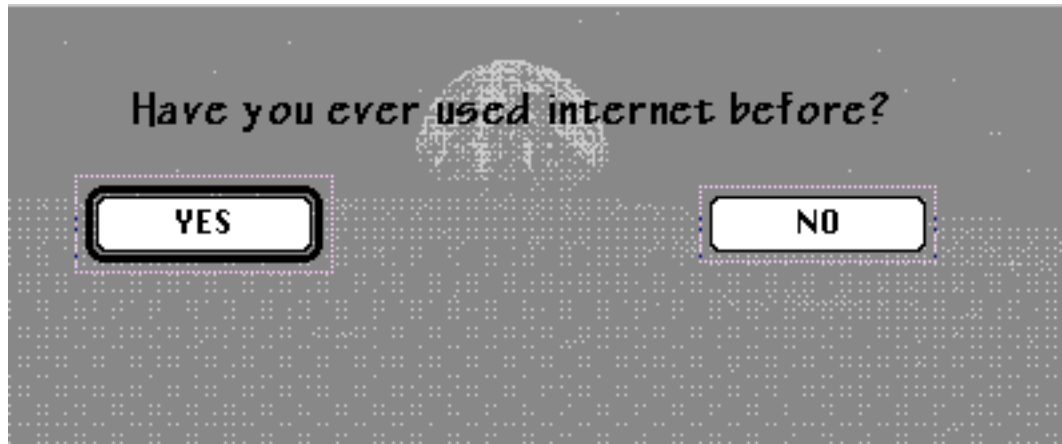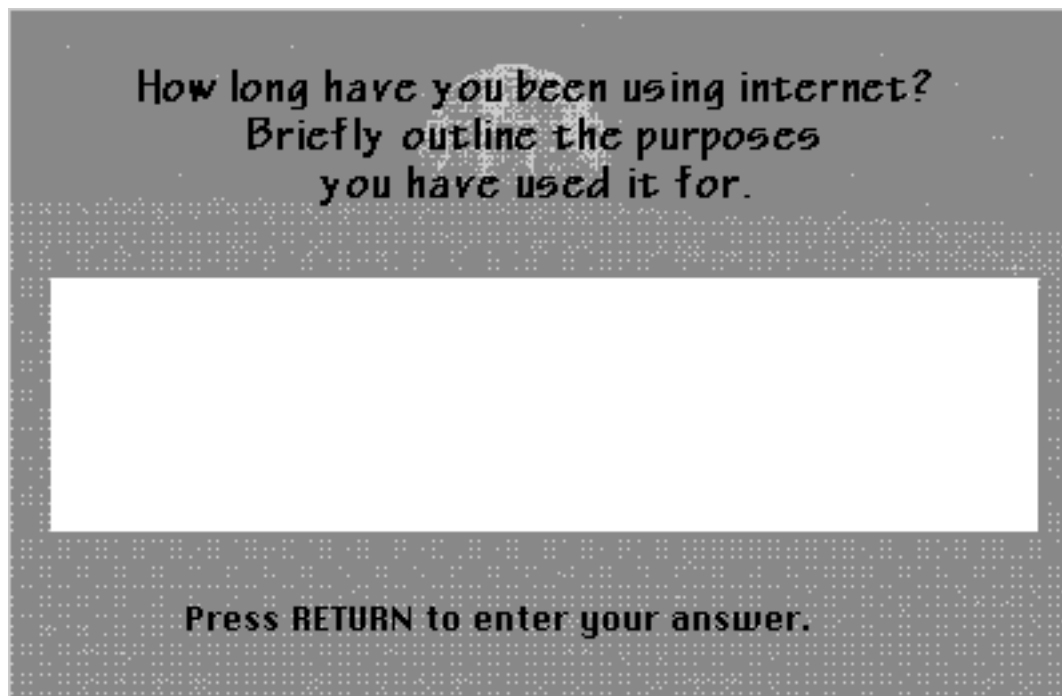
Figure 1. Question 1a - Screen.

Figure 2. Question 1b: Screen.

From the very outset all questionnaires, assessment details, and support materials were made available on the Gold Coast Film and Television Music Home Page (ftp site). Access to various national and international internet sites was encouraged from the commencement of the subject. This use of distant and diverse settings created a certain excitement for students best summed up by Ellsworth (1994) -

> Contacts around the world, in far away places, make any project more dynamic, and more interesting. Often, the Internet has the most current information available anywhere. Both teachers and students can be invigorated by the freshness and immediacy of the Net. (p.3)

Considerable time and effort were invested in teaching students how to access the internet, utilise e-mail and attachments, and exploring a number of 'bookmarks' (Figure 3) that had been collected for them.


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Bookmarks  Options  Directory  Help
Add Bookmark                                              ⌘D
    Australia - Queensland - Film Television Productin...
    Bangor Music Department
    Digital Sound Corporation
    Directory of /pub/emagic
    Directory of /Pub/Synth/Jv-synths/Jv80/Banks
    InfoSeek Search Results: wagner.musicnet.ua.edu
    Index of /media/audio/collections/icdoc-sounds/tvs...
    IRCAM WWW Server
    IUMA: Independent Artists and Bands
    Kaleidospace
    Logic-Users Mosaic Page
    Lucasfilm's THX Home Page
    MIDI Home Page
    Music Departments
    MidiWeb - User supported MIDI WEB Site
    Microlib/Mac Software Archive
    Northern Ireland - Film Television Production
    space
    Sites with audio clips
    Star Wars Home Page FAQ
    The MIDI Farm
    Technotes
    the Individualist
    The Theremin Home Page
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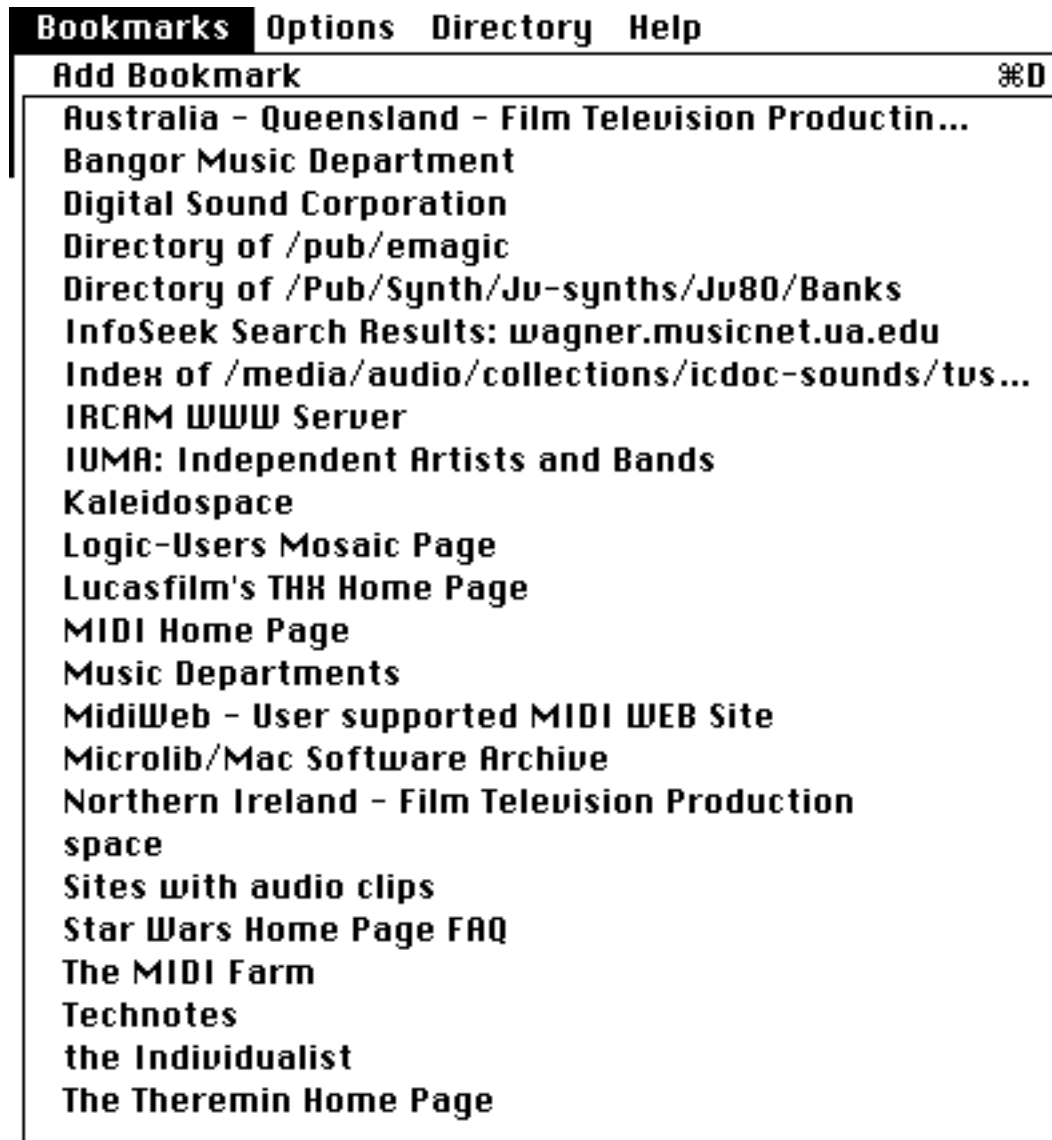
Figure 3. Bookmarks.

Again, there was a considerable variation on the extent to which students had already discovered the possibilities of the internet and electronic mail. The cohort was again electronically surveyed to ascertain the extent to which they believed they had made tangible gains in the use of the technology and for any suggestions that they might have to improve the quality of the teaching and learning of the module (see Figures 4 and 5).
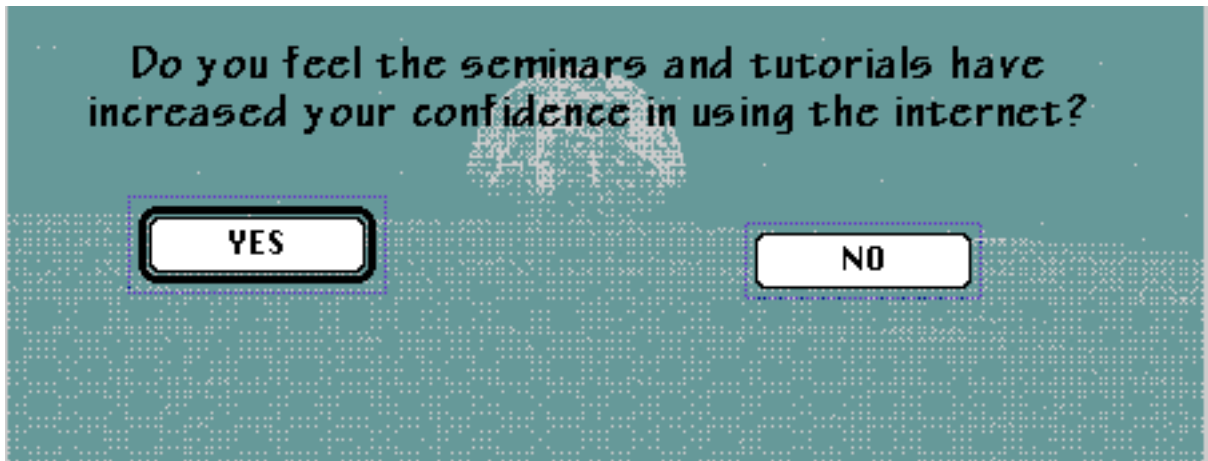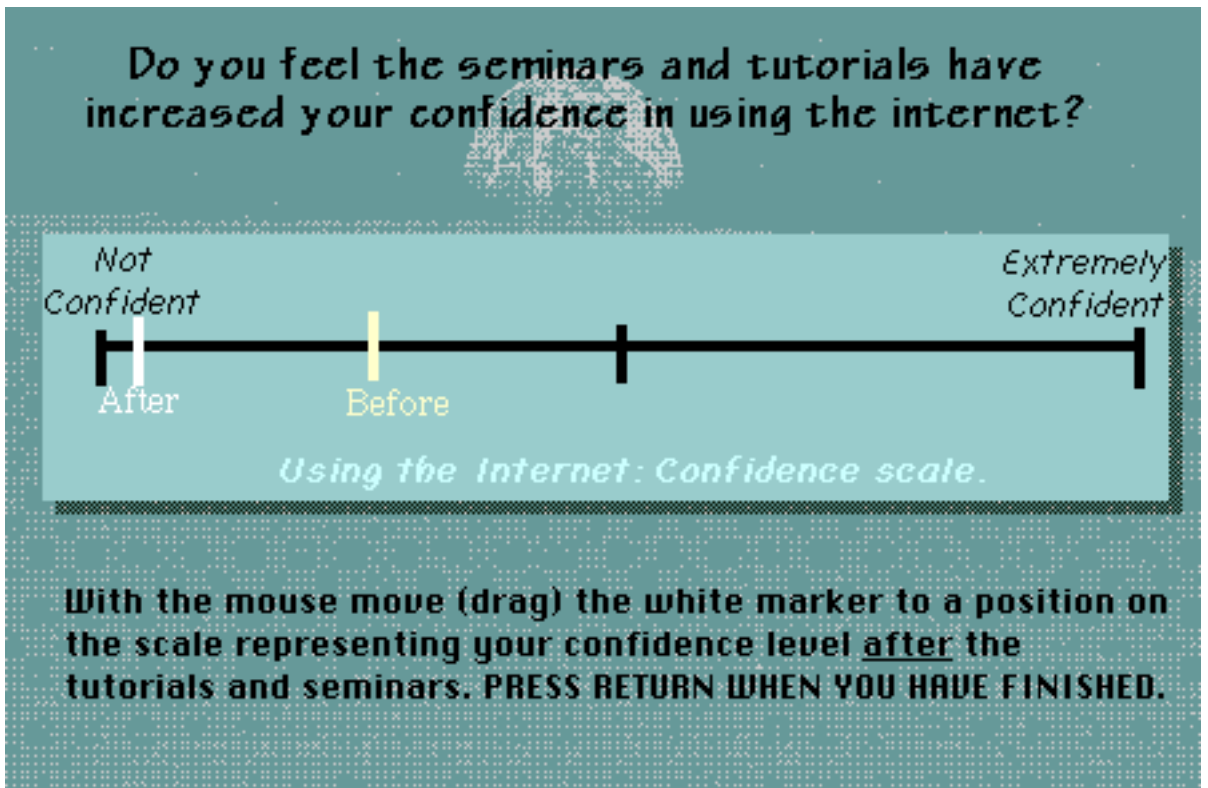
Figure 4. Question 2a - Screen.

Figure 5. Question 2b - Screen.

Considerable rethinking of the style and manner of teaching the subject was required. Students were not simply introduced to a range of software available (essentially the approach to teaching MIDI technology in classrooms and universities) but rather were instructed in 'accessing' techniques and skills that are important to the operation of a modern MIDI studio. This included e-mail, software updates, electronic tutorials and recording templates. Martin (1995, p. 5) highlights this change in the role of the teaching staff -

> In terms of teaching and learning the most significant implication is the change in the role of the teacher. The teacher moves from being the content specialist, the deliverer

(normally by face to face, or print) and assessor to become a member of a production team which develops on-line computer based materials. The materials delivered electronically, used by the student and then the students responses are returned and in some circumstances assessed electronically. The teacher will use a variety of electronic communication tools such as electronic mail and desktop conferencing.

Fundamental to our decision to attempt a high technology approach to the teaching of music technology is the belief that we are assisting our students in coping with the future developments within the area by becoming internet proficient. They are taught to communicate with colleagues all over the world; access the latest developments in software; become aware of the valuable information resources available to them on the internet; and generally understand how to effectively set up their current (or in some cases future) working studios. Huston and Huston (1995, p. 3) comment on the real potential of the new found resource :-

> ... the many electronic libraries available through the internet greatly extend the research capabilities of students and teachers alike. The libraries provide access to information from a wide variety of sources, combining text, pictures, sound and even movies.

Access to the so called 'information highway' will change the way they approach their work and perceive themselves as music professionals. Spring (1995, p. 30) comments :-

> A more urgent imperative comes from the impact of the information Highway on the nature of the work environment and on every facet of our everyday lives. It is this all pervasive impact which demands that schools need to provide all students with both basic levels of competence and the opportunity for all to attain high standards of achievement in and through the Information Highway.

Further we perceived the need to provide careful guidance in the use of the technology - not only because we had limited time with our students - but also because we were intent on making the experience as positive as we could. Again, Spring (1995, p. 9) sums it up rather nicely :-

> In plotting the way forward, we need to learn lessons from the pioneers of the Information Highway from all sectors, provide clear advice and guidance to avoid confusion of its educational users, and preserve and propagate the features of the technologies and emerging practices which are proving successful.

It is interesting to note that all students, at one time or another, experienced some frustration with the use of the internet. Expired passwords, screen freezes, local servers 'going down' all contributed to a realistic appreciation of the tribulations as well as the joys of technology. Remote access procedures provided their own 'joy' as students filled in the appropriate paperwork and purchased suitable modem hardware and appropriate software.

Special emphasis was placed on using the technology that enhanced current practices. It is important to be selective in the use of appropriate technology rather than use the 'toys' simply because they are available. Thomson (1995, p. 8) writes :-

The technology we want is what will enhance and enrich our existing good practice. It is only our less than good practice that should be replaced.

We are indeed fortunate within this particular programme that our students rarely resist changes to traditional approaches to teaching and learning. Most students are extremely enthusiastic about technological developments and all are keen to explore the real possibilities presented. There is a certain resistance evident in other programmes such as education and arts. Huston and Huston (1995, p. 2) write :-

The deployment of such technologies into the Australian education environment has been very limited to date. Yet it is in this environment that perhaps the most striking developments can be undertaken, and the essential basic groundwork accomplished for the longer term productive integration of information technologies into our society. Accordingly there is much that has to be accomplished to ensure that we can sensibly realise the opportunities such technologies offer to the classroom and the children.

2. The Shape and Design of the MIDI / Sequencing subject

In the spirit of design exemplified in the Graduate Diploma in Film and Television Music a flexible (alternate) seminar / tutorial design was put in place for the teaching of MIDI to the Gold Coast cohort.

Introductory Session -   Internet ... An introduction
Seminar 1-   Introduction to E-mail
Tutorial 1-   Practical examples
Seminar 2-   Advanced Features of E-mail and Internet
Seminar 3-   Recording Engineer's Use of MIDI
Seminar 4-   GM / GS Standards and Applications
Tutorial 2-   Soundscapes and Replication
Seminar 5-   Electro-Acoustic Composition

Students also received individual tutorial sessions on request along with electronic discussion of a question and answer type.

Sessions were presented by industry based practitioners with the emphasis placed on the use of appropriate technologies that would support the establishment of contemporary work studios. From the outset the focus was on 'good practice' associated with establishing home studios. This focus included computer hardware and software; MIDI software and hardware; Internet access and utilisation; electronic mail access and utilisation.

The formal evaluation of the subject was completed at the beginning of September 1995. The evaluation instrument used is a rigorous design created by the Griffith University Institute of Higher Education. The standard format requires students to rate a range of issues including -

the relevance of the subject;
clarity of aims and objectives;
application of theory to practice;
teaching methodology;

content of the subject;
availability of staff outside of class time;
enthusiasm of teaching staff;
nature and value of assessment items;
use of class time;
class environment;
quality of textbook / written materials;
quality of handouts; and
level of motivation.

Students are requested to rate (on a 7 point scale) the overall quality of a given subject. 1 being the lowest level and 7 the highest. This subject was rated (on average) at 6.2 which is a very pleasing result at this level.

Additional space is provided on the formal evaluation document for additional comments and observations of both a positive and negative nature. Students stressed the importance of accessing resources such as 'Netscape' and 'E-mail' and further commented on the extraordinary range of resources available to music technology users - not to mention music and film / television music students in general.

Difficulties associated with access to internet as a result of redtape and technical complications were cited by a number of students as a source of irritation. Every attempt to reduce this stress will be made with the second cohort of students later in 1995.

3. Conclusion

Phase One (of the four phase project) has proven quite successful. The emphasis, from the outset, was placed on accessing current technologies to support the teaching and learning of an essential technology based activity - MIDI and Sequencing. Unlike most approaches to the subject students were encouraged to use the 'greater technology' available to them to establish appropriate technology practices.

Students were introduced to support systems that would allow them to update their current understanding of key concepts on an ongoing basis; access upgrades to MIDI software; read and import 'exemplary practice' MIDI files available on the WWW; utilise software support tutorial assistance available from the United States; access software and hardware developments advertised from Germany and the United Kingdom; access personal support and feedback from a staff member based in Scotland; and regularly research a wide range of written, audio and graphic material available in their own specific areas of music / technology interest and specialism.

In essence this subject has proven the value of preparing students for the future rather than simply for the present. It has reinforced the merit of harnessing technology and highlighting 'good practice' models as a way of educating present and future practitioners.

This particular project is as much about educating teachers as it is about providing valuable learning experiences for students. At post graduate level it is often the case that staff gain as much, if not more, than students in terms of content and understanding. The challenge to all

staff in the area of music technology is to embrace the range of resources available and develop student confidence and interest in using them.

Morrow (1995, p. 12) highlights this rethinking of teaching and learning :-

> Understanding how the new technologies actually change the processes of teaching and learning - much less recognising how they can 'add value' right across the curriculum - is going to take even longer. Even the software retailers are now beginning to talk about the need to establish a clear educational rationale for applications of communications and information technologies in schools. Ultimately, such a rationale has to come from teachers themselves.

The three phases of the project remaining will provide the opportunity of further investigating the possibilities available to students and the way the teaching and learning process is affected.

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