The Interactive Multimedia Teaching Portfolio

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Abstract

The traditional teaching portfolio is prepared essentially on paper. It usually contains a large amount of information, some of which may take the form of a different medium other than text. With its bulk and diversity of form, the paper-based teaching portfolio often fails to highlight to personnel decision makers the salient aspects of one's accomplishments. This paper discusses how a computer-based teaching portfolio, which takes advantage of the technology's interactivity and multimedia capabilities to present the essential information in a variety of media, and uses hyperlinks to append less important information, which personnel decision makers can choose to view, browse, or skip. The result is a more effective alternative to the traditional teaching portfoilio.

INTRODUCTION

The teaching portfolio (TP), sometimes also called the dossier, is the document which an academic staff member creates to demonstrate his teaching accomplishments in his career. As such, it aims to contain a comprehensive record of teaching activities and achievements made by the staff member. In recent years, it has become widely used as one of the tools to evaluate teaching. It is often used in situations like substantiation or promotion, or even recruitment.

The traditional teaching portfolio is prepared essentially on paper. It usually contains a large amount of information, some of which may take the form of a different medium other than text. For example, it may include photographs of or a video tape of class activities. With its bulk and diversity of form, the paper-based teaching portfolio often fails to highlight to personnel decision makers the salient aspects of one's accomplishments. In order words, the viewer of the TP is often overwhelmed by the abundance of information presented.

> *The development of a TP is a long term and dynamic process. Even with careful planning it is likely that after a year or so the portfolio will contain a very large amount of information. Clearly, when a staff member wishes to prepare a case which demonstrates her teaching effectiveness it will be necessary to be selective about the information provided and the way it is presented to personnel decision makers, for example, promotion committees and selection panels. (Boyle, 1992, p 5)*

The interactive multimedia teaching portfolio is my reaction against the limitations of the traditional TP. Rather than having to look at a pile of documents and sieving among them critical information, everything is now presented on a computerised presenatation. In this computerised presentation, the major information is displayed as if on pages, or slides, as they appear on screen. Each slide contains information relating to a particular aspect or topic of the record of teaching achievements. A number of topics make up the entire slide

presentation. There will be various kinds of links between different topics or different types of information.

WHAT IS IMTP

A typical IMTP consists of an interface design, a set of navigational tools, a bulk of text, a collection of photographs and other information graphics, and a bulk of media elements. The text, graphics, and media constitutes the information part of the IMTP. This information is organised under topics. Two characteristics define the IMTP: interactivity and multimedia.

Interactivity

Interactivity means that information in the IMTP does not necessarily have to be viewed in a linear manner. The viewer of the IMTP, usually the personnel decision maker, has full control over what information to explore and in what sequence to explore it. The former characteritic makes it possible for the viewer to view selectively only the information relevant to the criteria of selection, as this may or may not be obvious to the teacher who develops the IMTP. The latter characteristic makes it possible for the viewer to jump from one part to another easily. Unlike when reading the traditional TP, where the viewer has to flip back and forth and get lost, hyperlinks and media links in the IMTP, made possible by the multimedia technology, allows him to conveniently switch back and forth between different types or levels of information.

Multimedia

Multimedia by definition refers to the use of a variety of media on a microcomputer for communication, rather than relying on text alone. The traditional TP may already contain a variety of media, but is not designed to be delivered on a computer platform, nor has it made extensive use of the capabilities and impact of multimedia as the computer technology has allowed it. To be able to tap onto the computer technology means that the IMTP can reap all the benefits that the technology has in store: capacity, colour, control, dynamism, ease of navigation and ease of development.

MERITS OF IMTP

The first and foremost merit of the IMTP is its capacity. When delivered on a CD-ROM disk, it can contain up to 650 MB of information. A paper-based document is comparatively rather limiting in its size. Any document going to more than 100 pages is certainly going to be extremely intimidating for any panel of viewers. The IMTP, when dilevered on a CD-ROM disk, can hold up to an equivalent of 170,000 pages of texts, or 1000 large full-colour pictures, or one hour of high-quality stereo sound, or 30 minutes of average-quality video.

The second merit of the IMTP is that it is basically a coloured medium. While colour printing remains complicated and expensive, the IMTP with its delivery medium being the computer video display tremendously outmerit its traditional counterpart. With the right video output device, photographs as well as graphical information can be displayed in thousands or millions of colours, whereas

traditionally on hard copy, they are either black and white or of relatively poor quality colour.

As far as statitical data is concerned, the IMTP has a much better way of presenting itself. On paper, the graph or chart represents possibly the best means of presenting the statistical information. In the IMTP, the data can be presented in a much more dynamic way. Animated charts and graphs can be generated, which can visually impress the audience with the way numbers grow or trends develop. They are ideal for demonstrating, for example, increase in teaching effectiveness rating over time.

As far as text is concerned, it is as effective as, if not more effective than a paper-based document. The viewer examines the information in the IMTP in as much the samw way as they flip through the pages of a paper-based portfolio. There is one more merit, though. It is that he can jump to another page easily without having to do the chore of flipping. Flipping is simply a click on the mouse. The user never gets lost.

When it comes to use, the IMTP is also open to browsing by an individual or by a group of individuals. Where the traditional TP is usually limited to single readership, (Imagine the fuss of reading through a mass of paper documents in a group.) the IMTP is as effective when viewed by a panel of several individuals, which often is the case when a staff member is considered for promotion or substantiation.

The viewer can choose to view all topics or only selected topics; he can determine the sequence in which he would like to view the information. Thereby, the viewer takes an active part in the process of browsing through the IMTP. He can be said to be cooperatively building a TP with the teacher.

The IMTP is particularly suited to an on-going development. Slides can be added at any time when the amount of information has grown. There is no need to retype or reprint the entire document. Compared to a paper-based document, the IMTP provides great flexibility and will sustain a longer life period. The next time you get an award, you can write a small paragraph about it, scann in a relevant photograph, and then create a new slide for it and insert it in the right place in your presentation. The last minutes before you present your portfolio to anyone, this can still be done.

DEVELOPMENT TOOLS

There are quite a lot of multimedia development tools available in the market. These includes authoring programmes, among many others. Most of them unfortunately involve a very steep learning curve, as they involve scripting, which to most is just a euphesim for programming. MacroMedia Director and Asymmetrix Toolbook are such examples. For anyone who are conversant with programming, I would not hesitate recommending these. However, for the typical teacher in a tertiary institution, learning to write scripts can be most intimidating.

In development my own IMTP, I used Asymmetrix Compel as the main authoring tool and Intel Action Media II as the video capture board. Compel is relatively easy to use. It allows navigational buttons to be created without having to resort to a draw and paint program. Making hotwords, creating animated texts and graphics, triggering media events can all be done with menu-driven commands. No scripting is necessary. Of course, this ease of development has to be traded in for power. For example, you cannot play two video clips at the same time. However, for designing and creating a TP, I believe Compel is adequate.

In development your IMTP, it would be best if you cater to users with equipment of the lowest denominator. This means you will have to restrict yourself to using standard MPC multimedia device formats, like the *.AVI* format for videos and the .*WAV* format for audio. This will allow your IMTP to be viewed from the lowest-end MPC platform.

DISTRIBUTION

Distribution can be done on a CD-ROM disk or on one of the removable storages devices available in the market. The CD-ROM should be the preferred alternative as the Multimedia PC (MPC) has become a standard and has been increasingly popular. A lot of institutions have already acquired a MPC for one purpose or another.

SyQuest tapes, magneto-optical disks, Zip disks, Jaz disks are all possible means of storage and distribution, provided you have made certain that your viewer has acquired the necessary hardware and software to retrieve the data.

CONCLUSION

In conclusion, the IMTP is a much better alternative for presenting a TP to any panel of personnel decision makers. The development is relatively easy, the interface intuitive and the impact great. I would highly recommended colleages who are interested to give it a try.

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