Developing a Strategy for Accommodating New Technology within an Established DL MBA Programme

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NEW LAMPS FOR OLD?: DEVELOPING A STRATEGY FOR ACCOMMODATING NEW TECHNOLOGY WITHIN AN ESTABLISHED DL MBA PROGRAMME

SETTING THE SCENE

Before discussing the direction of our strategy it is important to consider the factors that shaped it. We need to establish what the impact of using IT on an established international programme such as the Warwick DLMBA could be and the trade off of opportunities and threats that arise from increased use of teaching and learning technologies.

THE QUALITY (=RELIABILITY) QUESTION

We have arguably the highest quality DL MBA programme available in a competitive global market where accreditation and rankings are very important to success. Students pay premium prices to study the Warwick way and our DL students constantly look for reassurance that what they have chosen is high quality and value for money. With service recovery so difficult in an international DL programme getting things right first time is very important – "the impact of any mistake or miscalculation in the delivery is both public and difficult to remedy" (Alexander and Pegler, 1994). Understandably we need to focus on uses of technology for teaching and learning that raise, or at least support, the high quality of the DL MBA.

Whilst many of our students recognise the attraction and usefulness of the new technologies, they remain concerned about quality and reliability issues. This is borne out by survey data (Survey: Pegler, 1998) showing that whilst 80% agreed they would like to see the introduction of more innovative technologies", over 70% of the same students felt that "Technology is only useful to me if it is 100% reliable".

ACCESS AND SUPPORT AT A DISTANCE

It is easier to recover from and rectify problems with IT when the equipment, students and support staff are frequently in the same place at the same time. Our DL MBA students however are accessing technology from their own homes or offices, usually attend Warwick only once a year and may be located half a world away. We can maximise student access and minimise any familiarisation problems by supporting computing equipment that students already use. On the other hand we can minimise our support problems and costs by requiring students to purchase a defined, extendible common standard of equipment and software. Both routes present problems and trade-offs.

WHAT WILL IT ALL COST?

This is an especially significant question for a self-financed programme where fees are set years in advance. It also presents associated questions: "What will the students pay?" and "What will this save us – if anything?"

We are also aware that there may be opportunity costs which translate into 'real' costs when we consider how to motivate staff in a research led university to prioritise development of IT-based material. Having motivated academics to provide relevant content, how do we keep their interest and reward sustained activity – particularly where the technology used requires ongoing academic input. At a basic level, how do you quantify – and thus budget for and reward – academic input into on-line courses where the level of input is difficult to predict in advance? How much time will be lost (or gained) by the academic?

WILL STUDENTS USE IT?

The advantages of the low-tech, first generation DL technologies (e.g. print) are portability, ease

of access, reliability, customisability and familiarity (Bates, 1995). To what extent is the use of IT compromising or supporting flexibility? Part-time students have been described as 'survival students' (ICDE 1995). With too much study to complete in too little time they are attracted to technologies that offer time- savings and are sceptical about those that increase their workload.

One way to guarantee use is to integrate the technology into a core or compulsory activity - a high-risk strategy if we have doubts about access/reliability. If the use of technology is not compulsory, then how do we make it tempting enough for students to try it and use it?

HOW DO YOU ROLL OUT THE TECHNOLOGY?

Is this going to be 'Big Bang' change or will there be some parallel running of new and old systems? In particular will this affect all students or only new students? – a real issue for a programme where a significant number of students may spend more than one year studying the same course. Again there are pros and cons and different levels of risk, not to mention workload, associated with the different options.

IS IT WORTH THE HASSLE?

After all these questions were answered, we also have to reconsider what the use of the technology adds to the teaching or learning – in business jargon "Does it add value?" – is its contribution worthwhile?

WHAT NEXT?

The Warwick DLMBA has been in operation for over 12 years and we expect it to retain a high profile for at least the next decade. Increasingly materials developed for DL MBA students have relevance and value to students on other MBA programmes or customised courses for corporate clients. How should we plan and manage further developments in the use of teaching and learning technologies. Presumably, the new course delivery methods will almost certainly impact on those students starting today who may take up to eight years to complete the DL MBA? How do we manage any adoption of further innovations in the future?

ACT 1: LISTSERV

Our earliest initiative in using computer-mediated communications on the DL MBA started in January 1995 with setting up a listserv for our new Part A starters. At a time when many students still did not have access to email most of the students that did opted in.

Initially, we saw the use of listservs as an alternative to face-to-face study group meetings for students who were either geographically or otherwise distant from fellow students. It did give rise to transcontinental 'virtual study groups' but students who were members of 'real' study groups were also active on the listservs, sometimes acting as a conduit of information between the study groups and listservs and vice versa. (In this way the impact of the listserv conversations were greater than the sum of the email messages!)

Crude statistics about numbers of messages posted were of little value in evaluating the usefulness of the methodology in supporting students than the qualitative comments from student participants. Typical remarks were: "I would like access to a forum, even if I hadn't actually sent the questions myself directly. I'd quite enjoy just browsing through the forum seeing what other people are asking". A small survey carried out in mid-1997 showed that around 70% of members would miss the listservs if they no longer were offered. From a student support viewpoint, some of the unexpected advantages were much faster feedback on distance learning materials as the courses were being studied and the potential to reach a significant number of students more quickly to post errata messages. In this respect, computer-mediated communications offered important improvements to the system of service recovery on DL courses as well as a valuable networking tool for our students.

Overall this technology met our criteria of being familiar, accessible and robust. Being asynchronous, it also offered more potential for geographically distant students to contribute and benefit. Technical assistance was only infrequently required and students found it relatively convenient to send and answer messages – although not so convenient to store and search these.

The equipment costs were minimal or non-existent for both the Business School and the students – although back in 1995 questions were raised about the cost of being on-line. The most significant costs were support staff to create maintain and moderate the lists. Academic input was only required spasmodically and these interventions were managed by the support staff (i.e. tutors were not members of the list but were invited to make contributions where necessary). Therefore, the academic time required could be limited and was comparable to that already spent on answering routine queries by phone, fax or email on an individual student basis. In fact, there was a strong argument that by answering such queries on the listserv, the tutoring workload could be reduced as multiple responses to the same query were no longer necessary.

Although the listserv continued to attract a large number of students, the level of subscriptions (c.60% of registered students) had not reached saturation by December 1998. This was surprising given that over 85% of students had access to email at home and at work (i.e. a tripling of home access since 1996) and 93% used email at least daily (Survey: Pegler, 1998). Improvements to the listserv facility requested by students, such as tutor surgeries, integrated chat, an end to bounced messages, searchability and threading, required a step change in the type of technology employed.

Through 1996-7, we were searching for opportunities to use computer conferencing on a pilot non-DL MBA course so that we could find out more about this technology away from the large numbers and geographical spread of the DL MBA. We were conscious that competitors such as Henley and the OUBS were already offering computer conferencing as part of their courses. However, we were equally aware that they had committed significant resources to these ventures and were experiencing difficulties themselves such that they held back from making access to cmc a requirement. We continued to be dissatisfied with the requirement to install software as a pre-requisite to conferencing and the inflexibility this forced on our students. In 1998, this problem was resolved as we trialled web-based conferencing with the Evening MBA students. This took place as part of wider trials of the software, FirstClass, organised by Michelle Sellinger of the Warwick Institute of Education (WIE) as a consultant to the Centre for Academic Practice.

THE PLOT THICKENS

During 1996/7, the creation of a Warwick MBA web site offered DL MBA students access to several important library databases via the Web. This was a particularly important resource to those completing the final project and dissertation stage and a means of extending the range of further reading accessible to other students. The level of interest in remote access to library resources in order to customise reading was significant, with positive feedback from many of our students on the usefulness of this widening of access to resources. This Evening MBA trial was to take access to remote information sources a stage further by encouraging students to search for and interrogate non-library sources on the Web.

FirstClass is a computer conferencing system which allows groups of users access to common shared databases of previously sent messages as well as an email system to use for one-to-one communications. Messages can easily incorporate hyperlinks and attachments in a variety of media. The web-based version was used for the trial although the client-based version offers extra functionality.

The pilot formed part of the programme for an option in Financial Analysis taught by Mark Whittington in the Summer term, 1998. FirstClass was used by two seminar groups within a larger class and although the students were selected by staff they were given the option of opting out - none did. Students were set a case study requiring them to gather information that they could then bring together, analyse and present to the class. The need to find information made this case different from conventional case studies which generally provide all the material to be analysed (Whittington and Pegler, 1998). As staff who primarily support developments for DL students, we were looking to the EMBA as a testbed to pilot an initiative with a small number of students where the risks were more limited than they would be with the large number of dispersed DL students studying courses of a year's duration.

From the pilot, we gained valuable experience in setting up a conferencing environment to provide

a balance of private and public discussion areas, and areas for social interaction. Furthermore, we gained confidence in establishing the level and type of support required by on-line students. We were encouraged by the amount and quality of material generated by the students to flesh out their case analysis although the amount of messaging in one of the groups was sparse. Significantly, as these students met face-to-face on a weekly basis, many of their conversations about the case were off-line and the availability of this option impacted on the level of use of the technology. We can see parallels in the use of the DL MBA listservs where students frequently carried out one-to-one conversations or reformed in smaller discrete groups to carry on a dialogue away from the public forum.

A number of factors were identified by the students as potentially increasing the level of their participation: more messages, more familiarity with the system, a greater level of intervention by the lecturer, easier identification of who had written each message. These factors were influential in selecting and implementing WebBoard, the computer software that we were to adopt from 1999.

DRESS REHEARSAL

By this time we were confident that Web-based resources could significantly benefit our students by enhancing their learning experience and ultimately, supporting DL MBA teaching. In particular, we were confident that the Web could meet our need of flexible, international access on an equal basis in a familiar environment for students. It could therefore be more easily supported by the DL MBA programme and, most importantly, the academics who would be required to use it for teaching purposes at some future stage.

The development of an embryonic web site for the DL MBA and in particular the September Seminar 1998 site certainly removed lingering doubts about whether students would use the technology. In the first five months of operation, it received 115,000 hits (at its peak 15,408 hits a week). By the end of 1998, the DL MBA site (which now incorporated a digital photo album of the 1998 MBA graduation ceremony and an examination 'questions and answers' web site) presented the equivalent of 250 A4 pages as downloadable, printable and, even more importantly, searchable information. The success of the web site in this fragmented form gave the green light for some further web developments and in particular the addition of web-based conferencing using a package called WebBoard.

In line with our requirements, listserv experiences and the students' responses to web-based FirstClass, we adopted conferencing software (WebBoard) which offered particular advantages over the use of the listservs.The DL MBA WebBoard can be accessed directly or as a link from the DL MBA web pages. Once the new pages are in place students will be prompted for a password and that will give access to the appropriate WebBoard and other on-line resources that are relevant to their stage of study.

THE MAIN PERFORMANCE

The development team are now creating an integrated web site for the DLMBA to support not just our marketing effort (future students) and our existing students, but also tutors and alumni. Starting in July, we will be offering students a 'virtual induction' to the Warwick DL MBA and a site that will support their studies throughout their first year, culminating (December 2000) in the provision of on-line exam revision exercises with feedback for students and tutors. From July 1999, we expect to offer support to our Alumni, initially in the form of social networking and careers advice but ultimately in identifying and satisfying continuing professional development requirements. From August 1999 we will launch the September Seminar web sites for 1999, this time with pre-course readings and course preparation work available on-line. WebBoard is the conferencing software that WBS has adopted for its Intranet, so we expect there to be an increasing awareness of its potential and familiarity amongst Warwick staff which will help as we move to more academically-led on-line activity. The addition of a tutor zone will support on-line training of tutors and provide a safe forum for information and experience sharing.

Our survey data (Pegler, 1998) suggests that 85% of Part A and 90%+ of Part B and C students currently have Internet access. Over the next twelve months, as we move towards a requirement for students to have Internet access as a prerequisite for joining the programme (from July 2000),

we will be creating more course material and supporting more teaching and learning on-line.

Designing for the Web while keeping faith with our development strategy does create some tensions. Accessing the Internet from a networked computer in the UK offers a different experience than some of our students face (e.g. environments where hurricanes may wreak havoc with electricity wires/telephone lines!). Some students may find that they cannot opt for the Warwick DL MBA post-2000 because of difficulties accessing with their current technology but these will be a very small minority as we have designed for the lowest common denominator of hardware (i.e. screen resolution) and software (browser capability), and are rolling out the technology use with new students.

Four years after setting up the listservs, we are now putting together a DLMBA web site that will increasingly support students in their study and social interaction and will offer a medium for receiving and interacting with teaching material.

While we have called this period the 'main performance', in many senses that is still to come. The biggest questions remain of how best to support and motivate in the long-term academics developing new ways of teaching and learning using the Web. The level of tutor support for further development is growing – albeit not as fast as that of our students. The key to Ali Baba's cave of delights may be the confidence we now have in our infrastructure, the positive contribution made to the programme in exploiting the potential offered by current technologies.

We are now moving towards creation of a sustainable, expandable site, providing the skills training of academic and support staff to maintain, moderate and further develop the site. Our strategic approach of largely incremental development has generated a highly effective site which reflects and enhances the quality image of the Warwick DL MBA. Could we have got here faster? Probably, but not without considerable risk and not without sacrificing the learning experience and rehearsals that have yielded so much information, shaped our continuing approaches and equipped us for future developments.

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