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Getting the Balance Right
Developing a Blended Approach to the Support of Technology

Introduction

What is it about technology in the classroom that sends shudders down the spine?

From the point of view of computer enthusiasts, the benefits are usually obvious. As with any professional grouping, they are in the loop and get to see the latest applications and how they are being put to good use in case studies. Having evaluated the options carefully and made a recommendation to their institution, they are keen to see them exploited in the classroom.

From the point of view of University managers, the use of technology in the classroom is often presented as a solution to an overall problem:

Recruitment too low? Use distance learning to teach students who can't get to campus!

Not enough lecture theatres? Put lecture notes on line for students to read when they like!

Need more overseas students? Teach online so people don't have to move!

and so on. I'm sure that these crass, exaggerated examples have never been suggested at MMU, but they are offered simply to illustrate the kinds of issues which might be thought to be 'solvable' with a large scale technological solution.

However, have we paid enough attention to the points of view of the people who will actually get to use these technologies in the classroom? Higher Education has a long history of trying but failing to integrate learning technologies into day to day teaching(1). This paper will attempt to answer three questions about this:

• Why is information technology so difficult to integrate into mainstream classroom activity?

• Is this a problem?

• If it is a problem, what can be done?

Reactions to new technology

Higher Education is not the only sector where technology is treated with a mixture of feelings. A frequently quoted work is that of Rogers, who characterised the uptake of technology in a completely different sector (Iowa farmers) in terms of the personalities and motivations of individual users (2). Under this model, technology is adopted, or not, according to how it appeals to five groups: Innovators, Early Adopters, Early Majority, Late Majority and Laggards. The speed with which an entire community adopts a technology is shown in Rogers' 'Technology Adoption Lifecycle' (figure 1), which shows what percentage of a community might be actively involved in learning about and implementing a technology as a function of (an unspecified duration of) time. This is a useful model for identifying roughly how far things have progressed in a particular situation.

Small members of academic staff have always managed to find technological solutions to specific learning and teaching problems. By and large, these people would be described as 'innovators' in the 'technology adoption lifecycle' described by Rogers. They are people interested in technology who are willing, and/or able, to commit the time and effort needed to adopt and apply a particular technology.
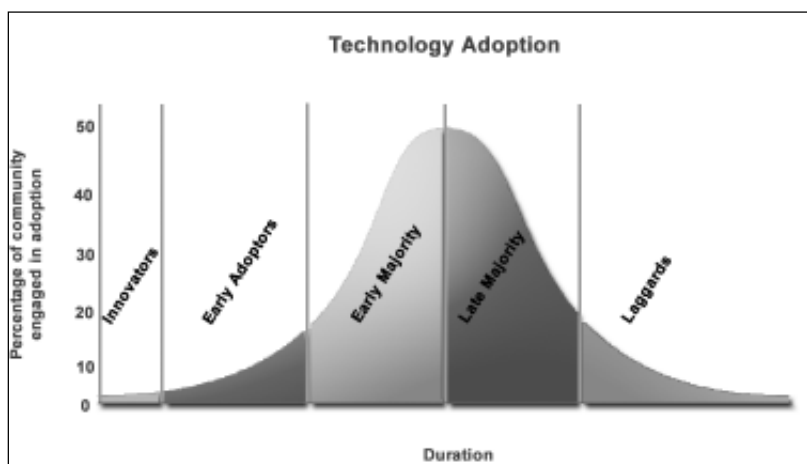
Figure 1: The Technology Adoption Lifecycle (after Rogers (2))

complaining about the volume of email they have to deal with? The fact is that people who don't adopt technology often have a good reason, based on the information available to them. A 'chasm' can then develop between the early adopters and the early majority, condemning the technology to a long period of stagnation, or complete failure, if the infrastructure is not developed during this period, to a point where the system becomes unusable(3).

Occasionally, a technology has become popular enough in Higher Education for a larger number of people to use it, maybe even bringing the 'late majority' into contact with it. In the last decade or so I can think of only two which have genuinely become part of mainstream teaching - Powerpoint, and the use of broadcast television programmes which are recorded and played back in the classroom. Both of these must count as having **'late majority'** uptake (don't all write to prove me wrong along the lines of "*I still have six colleagues who still use handwritten OHTs*"!) Many other technologies have gained only a cult or temporary following among **'innovators'** (which doesn't mean that these technologies should be dismissed entirely - they may be providing solutions to real problems) - does anyone remember, or still use, the videodisk? Some technologies have been extremely popular and continue to be used widely, such as the overhead projector. Some technologies have been used by everyone and then superseded….like the blackboard.

Whilst this brief summary of Rogers' work is useful for doing a historical review of why something hasn't been adopted, it shouldn't be used to blame individuals for not participating - something which is entirely possible given the subjective nature of the terms applied to the groups. At first sight, who would want to be a 'laggard' rather than an 'innovator'? However, many would argue that it is completely rational to be a laggard, and to wait for the technology - and its support - to mature. Some technologies have achieved widespread acceptance but seem to be creating more problems than they solve for the over-stressed lecturer - how often have you heard people

Why does it matter?

It matters because technology CAN provide real solutions to real everyday classroom problems. People are still being buried under certain types of paperwork when they needn't be; developments in areas such as portfolios and progress files are slower than necessary; some students are struggling because we can't respond to a specific need efficiently, and some opportunities for fun and variety in teaching are being missed. It matters because employers expect students to be 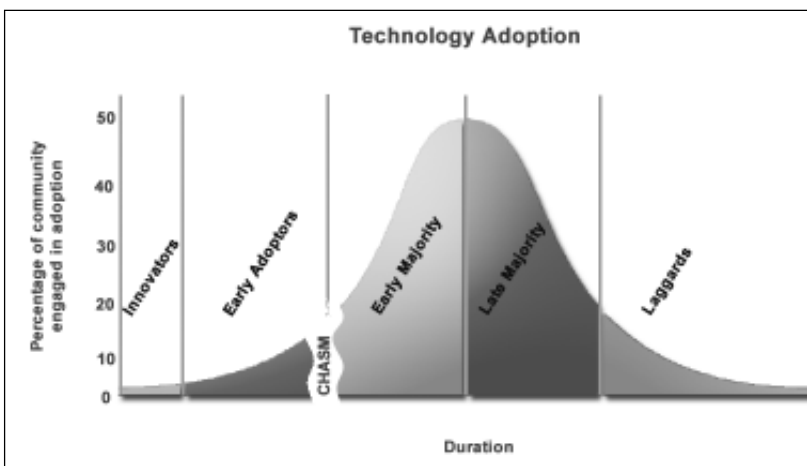developing the kinds of skills which are not always encouraged in traditional classroom teaching situations. It matters because many of our students and potential students would benefit from flexible approaches to our teaching and their learning, which would allow us to move away from a sterile debate about 'dumbing down' and towards an effective debate about what 21st century Higher Education should be about.

Figure 2: Adoption of eLearning at MMU

What can we do?

The traditional way to approach the introduction of a new information technology is to offer a series of workshops based on the technology itself - 'How to use Product X', 'Integrating Product Y into your course', and so on. It is now also traditional to provide web-based resources - often based

on the software manufacturers' helpfiles - as an online reference. An email support line is also useful for dealing with individual questions. There is nothing wrong with these approaches, but they aren't enough to encourage uptake. People may come to a workshop but for one reason or another find it

Figure 3: The Technical Adoption 'Chasm' (after Moore (3))

difficult to use the software straight away and then find that they have entirely lost the thread when they do finally get a change to settle down to it (even worse, people in this situation often think it is their own fault that they no longer remember how to do it). The web resource may be structured so that it is assumed that the user already knows which bit of the technology he or she needs to focus on to answer the question, leaving him or her going round in circles trying to find an answer. Even those who have expressed an interest and made some initial efforts may give up in frustration, faced with these barriers. And, of course, none of these resources will ever be accessed by the majority of staff who have no idea of what the technology can do yet!

There is a whole range of technology to which these analyses could be applied, but for the purposes of this paper, I'm going to focus on one. eLearning is a clear case of **'early adoption'** at MMU, with about 15% of the University's academic staff being registered users. If I overlay the technology adoption curve with some real dates for the time we've spent getting to that point (figure 3), and we then continued along the curve progressively, it would be 2006 before we had half of staff using it, and 2015 before it could be considered a mainstream technology. This doesn't fit too badly with current Faculty strategic plans, but there is a problem with this projection. It assumes that the **'early majority'** will be willing and able to participate, and that no 'chasm' has appeared or will appear in the projection.

However, the paper by Som Naidu in the Autumn 2003 issue of LTiA (4) shows how far we have to go. In the paper, Som reported that the most common use of 'eLearning' at MMU was to direct students to useful URLs (79% of tutors) and to direct students to online Library materials (75%). Of course, these are useful things to be able to do, but it doesn't exactly reflect changes in learning and teaching practice which would provide clear benefits. In the recent Government consultation document on eLearning (5), the Secretary of State for Education and Skills declared that "*eLearning has the potential to revolutionise how we teach and how we learn*". I'd hazard a guess that he had something a bit more exciting in mind than directing people to other web pages when he wrote that!

MMU is not alone in this cautious approach to technology. 94% of student users of eLearning surveyed at the University of West of England for a recent study said that they would use their eLearning system for downloading lecture notes - with only 25% using it to submit coursework (6). If we assume that it's of interest to MMU to '*revolutionise how we teach and how we learn*', what can we
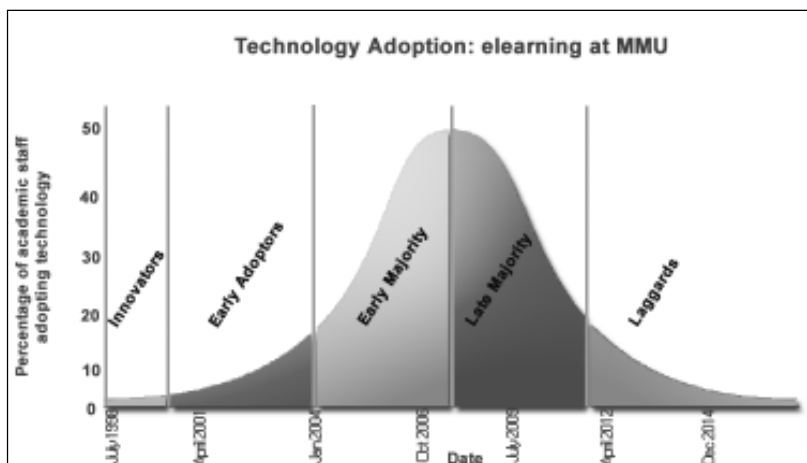
do to improve the use of eLearning?

In 1994, William Geoghegan explained the 'strange' reluctance of academic staff to adopt technology in terms of four factors (7):

1. **Failure to recognise some people's resistance to technology** and a dogged belief that one simply needs to offer "stronger arguments, greater incentives or more support….to bring them round"

2. **The "technologists' alliance"** - a grouping of faculty innovators, central support units and IT vendors which is too self-centred to understand why one size does not fit all when it comes to technology adoption.

3. **Alienation of Academic Staff** - by wonderful examples which create unreachable expectations, or take all the 'pump-priming' funding for showcase projects, or the perceived willingness of early adopters to work without much technical or practical support.

4. **Lack of a compelling reason to adopt** - the benefits of adoption must clearly outweigh the costs in human and financial terms.

Looking back over the last six years of eLearning at MMU, I would say that we have made all four of the mistakes listed above, painful though it is to admit it.

What can we do at MMU?

I propose that we take a 'blended' approach to dealing with eLearning support at MMU. *'Blended learning'* is a popular expression in the technology "alliance" at the moment, having replaced *'mixed-mode'*, but still describing a mixture of online and face to face teaching. In this case, I have in mind the establishment of several elements of support which would each be intended to deal with potential questions, rather than starting from the point of 'here's the technology'. In this model, academic staff would start from the point of what they might like to change in their current teaching practice, and would then be guided towards solutions which might or might not involve technology. Before you all write to me for individual help, it's pretty obvious that the three members of academic staff employed by the university to work on learning and teaching issues can't deal with 1200 people on an individual basis, but the idea would be to build on the existing expertise in eLearning developed (painfully?) by the early adopters, to establish (slowly) a network of Faculty based support, and to provide a library of commonly identified problems and questions, case studies and resources on which everyone can draw.

The components of the proposed approach are shown in Figure 5. It depends on eight different types of resource.

Failure to recognise resistance to technology	Training courses are available. Over the last few years, the titles have remained largely the same. Some experimentation with format and timing has taken place, which may have attracted a few more early adopters, but the content has remained largely constant. The titles would suggest that I've taken the approach "Here's what the technology can do and here's how to use it". We aren't alone! A casual survey of the websites of other institutions brings up the same kinds of training programmes with the same kinds of titles.
The "technologists' alliance"	Ouch! no-one wants to admit to being in a clique! But it's hard to escape, even when you've made the admission. The demands of managing the service militate against stepping outside it and seeing how high you've built the walls. The dangers of people thinking that you will ALWAYS say 'eLearning' if they come to you with an issue are also very great!
Alienation of Academic Staff	Some people are outraged when the word 'eLearning' is pronounced in their presence. Top Two reasons people give me for not even considering it 1) they don't want to lose contact with students 2) it will do them out of a job and yet I know that I've never suggested it as a substitute for personal contact (in fact, I think it can sometimes offer more opportunities for this) and all studies show that it can only make teachers more flexible, rather than saving them time. The second issue raised by Geoghegan, that of setting the expectations too high, is a real danger. There are some excellent applications of eLearning at MMU, and LTiA has showcased many of them. Does it sometimes happen that people admire these, then say "but that was Ethel, she's really technically minded, I could never do that"?
Lack of a compelling reason to adopt	There are two questions which need to be answered for each individual who might be interested: "how will this help me?" and "is there enough support to make it possible for me to succeed?". There are no generic solutions - each person needs his or her own reasons. A general advertisement that the technology is available will not provide these reasons for most individuals.

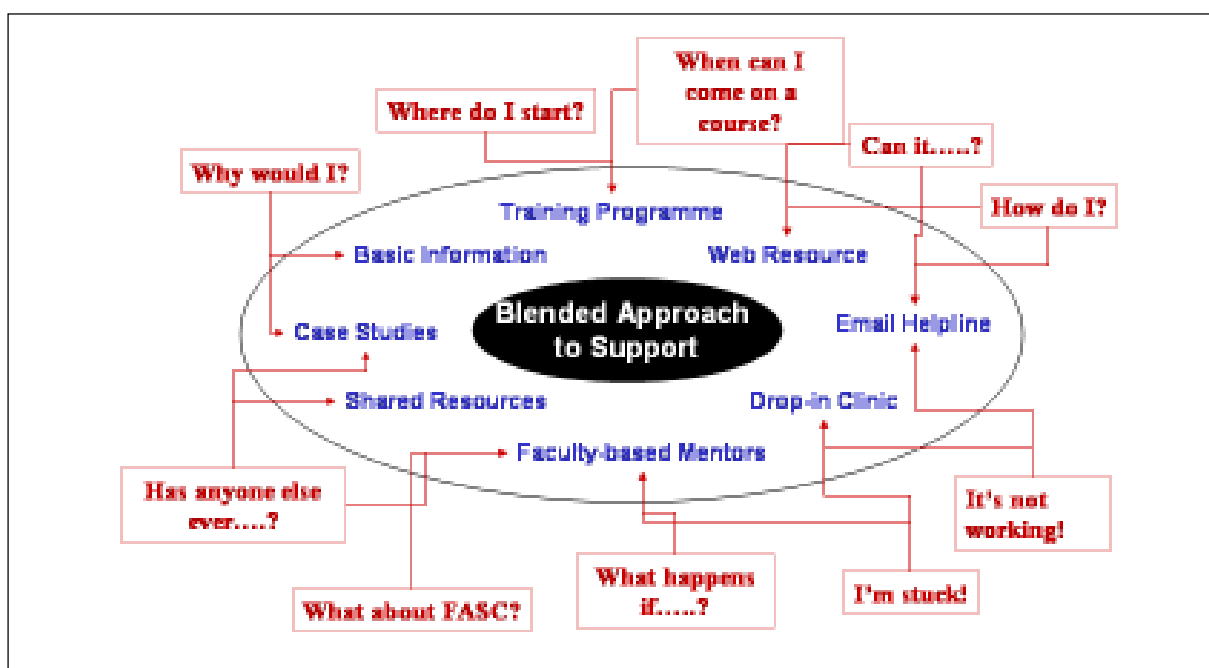**Figure 4:** Things which might have created an adoption chasm at MMU

Figure 5: Components of a Blended Support System

Basic Information	An overview of the technology and what kinds of costs and benefits can be expected - an ideal resource for the 'early adopter'?
Training Programme	Many people will still feel happier being introduced to something new via a formal training programme. However, it doesn't need to be an 'A to Z' approach - staff can learn what they need to address particular teaching issues. Additionally, the programme will no longer be isolated - there will be other resources to support it
Web-based Resource	This should be multi-faceted. Some people will want the online manual; others will dip into the Frequently Asked Questions; many will find it useful to start from a guided approach to solving a problem. All these starting points should be possible.
Case Studies	A good collection of real examples will help people wrestling with common issues and should spark off more ideas.
Shared Materials	A repository of shared materials should encourage people to share, re-use and re-purpose certain types of materials, and prevent too much reinvention.
Email helpline	When all else fails, a team of knowledgeable users is invaluable for answering technical and pedagogic questions.
Department-based mentors	These would be 'Early adopters' with some timetable release to provide a limited one-to one response to close colleagues. This is about to be piloted in two MMU faculties with the support of the Human Resources division.
'Surgery'	Drop-in area, both online and in a central location, for those who would like to have questions answered in real time rather than asynchronously.

Figure 6: Details of a Blended Support System

This blended approach to support for technology is one which the L+TU is trying to put into place to support the ever-increasing number of WebCT users. There is much work to do, but if you'd like to look at what currently exists, go to http://www.ltu.mmu.ac.uk/elearning/webct index.php. I would welcome your comments and contributions to this project.

We will of course be evaluating the project and I'll report back in a future issue of LTiA. There may be applications of this blended approach in other aspects of professional development.

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