

Blended Learning: Blended Resources – a Collaborative Approach to Supporting Students

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ABSTRACT

This paper describes the ongoing process of action research and collaboration between an academic and a librarian, as we have explored how electronic resources can interact with, influence and change teaching and learning opportunities. From our experiences in this project, we identify the factors that have influenced the effective integration of learning resources with the programme of learning opportunities. As well as knowledge of, and access to, the technology and the resources, it is argued that active dialogue between the librarian, the academic and the students is a major influencing factor in developing effective and appropriate blended learning solutions.

Keywords

Collaboration, Networked learning resources, Library support, Information Literacy, Blended learning.

INTRODUCTION

As Laurillard (1999) has observed, the electronic network has revolutionised thinking and activity about learning and information transfer in a way that equals the impact of the Gutenberg Press. This has been demonstrated in the rapid developments in e-learning, not only through the proliferation of new models of learning approaches (Mason, 2002) but also in the range of learning resources and learning media that are available to support course design and delivery (Calverley and Shephard, 2003). Whatever the mode of course delivery, however, educators, librarians and students have become increasingly aware that the 'fast growing array of electronic information resources' (McDowell, 2000, p.255) has highlighted the need for more detailed understanding of information use in student learning.

McDowell suggests that this is 'a multi-faceted phenomenon', which includes issues about the integration of electronic resources into the learning experience, but also highlights the need for students (and their tutors) to develop generic information skills, their knowledge of their discipline and 'the capability to handle complex information' (ibid). Like others (Parker, 1999; Allan, 2002; Calverley and Shephard, 2003; Markland, 2003; Freeman, 2004), McDowell argues that 'partnerships between academics and librarians are a way forward in helping students to develop as autonomous information users. Not only do these two professional groups offer different expertise, but they also bring different perspectives on the problematic balance between student autonomy and student support' (ibid).

CONTEXT

The action research reported here developed from a convergence of several factors. The implementation of the University of Sheffield's Learning and Teaching Strategy (Banks and Powell, 2002) provided the course tutor (MF) with an opportunity to develop a blended learning approach for a module in voice disorders, for undergraduate and post-graduate students in speech and language therapy. The module design centred upon case-based learning, in which students engaged in small group study of a diagnostic interview and assessment of a client with a voice disorder, presented on a CD-ROM, linked to a WebCT module, to provide hotlinks to websites, electronic journals and other resources. The module also included face-to-face (F2F) lectures, discussions and workshops activities in clinical skills. The topic itself is complex and draws on a wide range of information and learning media, including the anatomy and pathology of voice disorders, acoustic and phonetic analysis, psychosocial issues, to theories of therapy and consideration of the evidence-base for practice (Sackett, et al., 2000; Enderby and Emerson, 1996). This raised issues for the students and the tutor about the most

effective ways to integrate the learning resources into the module, which led to the tutor seeking advice from librarian colleagues.

At the same time, the University Library was engaged in a review of services, for a number of reasons. Like all other library and information services (Calverley and Shephard, 2003) there was an awareness of operating in a period of rapid change with tighter budgets coupled to spiralling prices, new technologies and ways of delivering electronic information, increased need to offer value for money and accountability, as well as responding to the ever more sophisticated demands from users (Allan, 2002). These issues were emphasised by the devolved approach to networked learning adopted by our university (Banks and Powell, 2002), because of the additional costs, in terms of both staffing and budget, of resourcing and supporting mixed modes of learning (Mason, 2002; JM Consulting Ltd, 2003). It was also recognised that different types of support are needed for different models of networked learning depending on the number of students, the learning style adopted, the recommended reading, the client group and whether they have access to a physical library. Previous research had demonstrated that close liaison between academics and library staff is essential if networked learning is to be planned and implemented effectively and efficiently (Parker, 1999). A new strategy was therefore developed by the Library, which was underpinned by the need to take a pro-active role to justify their position within their institution, to disseminate information about electronic resources, particularly cost and feasibility studies, and to provide information skills training within the curriculum and networked learner support through a personalised service (Parker, 1999; Markland, 2003; Calverley and Shephard, 2003).

COLLABORATION

The collaboration described here, therefore, began in Autumn 2001, when a project to integrate library services into WebCT was funded by the University of Sheffield Learning and Teaching Development Fund, to explore the feasibility of integrating reading lists into WebCT, through the use of TalisList. TalisList enables links to be provided not just to print material in the Library catalogue, but to websites, full text articles, chapters from e-books, handouts or PowerPoint slides created by the lecturer, all coordinated in a structured way. The facility to prioritise items, include annotations, and organise the reading list to match the course format (e.g. by relevance of text, by week or seminar) is also available.

In-depth interviews and discussions with a small group of tutors with experience of WebCT aimed to explore how the traditional concepts of the reading list were changed when working in the online environment. This confirmed that the accepted practice, of providing students with handouts containing a course outline with readings associated with each lecture, did not fully meet the needs of staff or students in the online environment. One key issue for the tutors was that the resources should be made available in a way that enabled students to work equally effectively in both the electronic and the traditional Library environment. In addition, all tutors were keen that the Library should provide as many readings electronically as possible.

These discussions also raised a number of practical issues, including the need to update the reading list to reflect any last minute changes. This contrasts with the Library's request for lists to be submitted at least three months before the start of the course, in order to cope with ordering and processing new material.

As well as the practical challenges, the LibCT project also opened up discussion around the purpose of a reading list, their value in an online environment and the place of resource provision and library services in making material available at the point of need, for example, within WebCT. It was apparent that reading lists can have multiple purposes, including providing a framework for the course and a structure to the students' learning, to assist a formative understanding of the subject, to suggest ways of extending the subject knowledge and as a list for future reference. In addition, some elements of the reading list may be used to encourage discussion in a group, to give people common experiences, or to promote students' awareness of current innovations and research in their field. It is also apparent that there is a certain traditionalism about the construction of reading lists, not least to do with the accreditation system and teaching quality exercises within higher education. These apparently different functions of the reading lists have given some insights into the reasons why the structure of reading lists varies enormously, an issue which is particularly obvious to library staff when they are processing new orders, distributing copies between various loan periods and adding the references to the reading list traditionally stored on the library website.

Discussion of the newly developed TalisList indicated that some of its features would resolve one of the known problems, which is that it enables tutors to annotate references, so that students have a clearer understanding of the rationale for the inclusion of each item (i.e. whether this is essential, background or additional reading). The tutor can also decide within TalisList whether to provide deep links (immediate access) to full text papers or provide information to students on how to make the links for themselves. This also raised the question of

whether providing deep links to full text documents is 'spoonfeeding' or 'scaffolding' the student's learning (Stuble, 2002a).

As well as providing insights into what the technology can do, the discussions between the librarian and the e-tutors led to further suggestions about the ways that electronic access to study resources might interact with, influence or change teaching and learning opportunities. Two key points were identified for further action. The first related to further exploration of uses of the online reading list, including an investigation of the costs and benefits of providing electronic offprints. The second action was to examine the potential for developing a series of core online information skills tutorials, which could be used as learning objects, adapted to meet the needs of different subject areas.

THE ONLINE READING LIST AND ELECTRONIC OFFPRINTS PROJECT

For this project, it was agreed that a small number of tutors would be offered the opportunity to construct their 'ideal' reading list, structured to match the learning objectives of each module topic and with all relevant learning resources, including journal offprints, that are not currently available in electronic format. From the tutor's (MF) perspective, this was a chance to learn how students would respond to (what turned out to be) a long and complex, annotated bibliography comprising print textbooks and journal articles, e-journals, links to audio and video clips and websites. From the Library perspective, the aims of the electronic offprint project were to: investigate the costs and benefits of digitisation (as opposed to providing print course packs) and integration of the e-offprint service with the online reading lists, including access from WebCT; evaluate the usage of the service from the academics' and the students' perspectives and estimate the resource requirements for rolling out the project to the University as a whole.

In discussing the requirements for the Voice module with the tutor, few essential items that all students needed to access, were identified. However the majority of journal articles are from one research journal, *Journal of Voice*. An online subscription was established which provided through Science Direct the facility to deep link to individual articles published since June 2001. In addition, another 13 references to the *Journal of Voice* pre June 2001 were copyright cleared through Elsevier for free, except 1 article, which is a second request from the same issue of a journal. The charge for digitisation, administration and VAT for one article was £53.51. Nine other requests were submitted to Heron (Heron, 2004), who quoted costs for copyright clearance ranging from free, through 12p, to 24p per article, per student. Copyright clearance was refused for only 1 of the articles. With regard to the 2 articles priced at 12p and 24p per page respectively, after some discussion, the tutor suggested alternate readings, which were already available in electronic format. She did not consider digitising these extracts value for money.

From the Library perspective, therefore, one of the outcomes was recognition of the need for an ongoing dialogue with academics about the cost and availability of particular readings and, where appropriate, to offer support in locating appropriate alternatives. The increasing and continuous change in access to e-journals and e-books, combined with the improved functionality of the library catalogue to find such material and the need to update the links from the specific TalisList have also required close contact to be maintained. A second important outcome relates the time required for the whole process, that is, from academics creating and submitting their reading list to receiving and making available the digital extract, has been a governing factor in the success of the pilot. The librarian needs to be totally conversant with the requirements of the course and the tutor needs to be able to make swift decisions and judgements to accept or reject offers whilst keeping within budget.

Several other outcomes can be identified from this short pilot study. The first, from the tutor's point of view, was the recognition that searching for, reviewing, collating and annotating the full list of 257 items took approximately 30 hours to complete. Checks by the librarians confirmed that about 50% of the journal articles selected were already available electronically. Of the remaining items, some were made available free of charge by the publishers, while the remainder (as above) were provided at a fee. The full list of references was provided via the online reading list, with links made directly into the WebCT module. Due to the size and complexity of the list, print copies were not originally provided to the students. However, a few weeks into the course, some students requested a paper copy, as the printing had proved slow when the whole document was downloaded from the University server. This suggests that the layout of the TalisList format needs careful consideration, to marry the pedagogical requirements with the capabilities of the technology.

In a follow-up email survey, the students' responses were enthusiastic. They "really appreciated the online resource list", especially the links to full text articles, mainly because it saved time "that would have been spent pointlessly queuing at a photocopier". Similarly, all preferred electronic offprints to the traditional print short loan, because of the time and effort and travel to the library. The students all stated that the main influence on

their reading was the references provided by the tutor, in the F2F sessions, the CDROM, in the text-based online study materials. Few students had accessed resources from the reading list, which were not directly referred to. Even though they were informed about the online reading list and the electronic offprints by the librarian, face-to-face and by email, the students did not cite this as an influence. While the students indicated they did not use all the material available electronically, a survey of the bibliographies provided with their assignments indicates these final year students were still very textbook orientated in their formal, assessed essays.

Although it is apparent that the contents of the bibliographies provide only a very rough indicator of the resources accessed by each student, tracking of the use of the electronic off-print collection shows that few students accessed all of the readings and that some, although directly relevant to both the case study and the summative essay, were not accessed at all. When this is compared with the costs, in terms of the access charge (per student, per item, per month) and the librarian's time in obtaining access, copyright clearance etc., it is apparent that judicious use should be made of e-offprints. Another valuable lesson learned by the tutor during this small pilot study is that resource lists can be too long. Although the aim had been to provide a broad selection of resources to encourage guided discovery learning, there is a suspicion that the students may have felt the need for more guidance. It will be interesting to see how long it takes to prune the current list into a more user-friendly size.

Our reflections on this experience has highlighted the different working practices and, perhaps, thinking adopted by librarians and academics in relation to resources. While the tutor should be working at the cutting edge of their research and drawing on a pool of professional resources at both a deep and surface level, the librarian is more aware of access to information resources and their cost. This can not only lead to interesting discussions about the library budget, but also underlines the need for librarians and academics to recognise the value of working together, as part of the wider community of practice (Wenger, 1998) in the University. As an extension of this, it is of note that a number of (librarian) observers have reported that academics, as a group, may not be fully aware of the extent and nature of the resources available from their library services (Parker, 1999; Markland, 2003; CERLIM., 2002) and, thus, do not avail themselves of existing services such as the Resource Discovery Network (RDN, 2004). There are also some reports of academics preferring to find their own resources without reference to library-based resources (Jackson, 2001; Markland, 2003; Brophy, 2003). This raises interesting questions about tutors' willingness to give up their autonomy in order to develop appropriate course resources. It also causes one to question what these academics define as good academic practice, or their concepts of themselves as role models. After all, if Google is good enough for the teacher, it is surely good enough for the students!

THE INFORMATION SKILLS PROJECT

As noted earlier, one of the outcomes of the LibCT project was to obtain further funding to develop core online information skills tutorials for undergraduate students in the form of a succinct, user-friendly guide. Such a resource is currently not available at the University of Sheffield. The tutor for Voice and Voice Disorders has continued to be involved in this new development, along with tutors from the departments of Law and Biomedical Sciences and the School of Nursing and Midwifery. There has been long debate within the library and information science arena over 'generic' versus 'subject specific' skills and whether a generic resource can meet all student needs (Big Blue Project, 2002).

By creating the information skills resource, the Library wishes to provide all undergraduate students with easy and flexible access to important information skills materials from within WebCT, developed in dialogue with academic departments. The intention is that this will enable tutors to embed information skills fully in their teaching and make it integral to the formal assessment. The design is planned to enable the selection of elements of the resource, which can then be embedded into subject-specific WebCT-based course material (Stubley, 2002b). The difficulties of developing a central resource, to be used by different courses, at different levels, by students with different learning styles whilst meeting the latest accessibility and access requirements, should not be underestimated. The key is to be user focused so that the resource is relevant to students' studies, particularly to assignments, not overload them with information and provide active links to courses so that information skills is embedded within their curriculum (Moore and Abson, 2002; Big Blue Project, 2002). Thus, this resource is being developed as a series of self-contained learning objects (Boyle, 2003), intended to be reusable both by librarians and academics, as and when required.

Discussions between the tutor (MF) and Development Librarian for Academic Services (LP) provided the basis for the first tutorial, on referencing skills. This is a formative tutorial, with self-tests and quizzes built in to help the students gain confidence, in a non-threatening environment. A user evaluation (LP) both confirmed the

usefulness and relevance of the content and also informed the design process, by demonstrating the need for a variety of entry points, so that the learning strategies employed by individual students were catered for.

A tutorial on information-handling and information evaluation is the next priority, based partly on the premise that:

‘accessing and using information resources is one of the ways in which students begin to act as independent learners, becoming involved in making choices, weighing evidence and coming to conclusions for themselves’
 McDowell (2002, p.256)

This is, of course, a core skill for all aspects of study, although it has often been one of the aspects of information literacy that has been taken for granted in the HE sector (Webber, 2001; McAvinia and Oliver, 2002; Allan, 2002). The need for these skills has, however, been emphasised by the variable quality of information available on the World Wide Web (Freeman, 2004). Students therefore need to know about the accuracy and consistency of the material they access from any source but, in particular, to be aware of codes of conduct in web design and to be able to recognize indications of good and poor practice such as: the identification of the author of the website, acknowledgements of organisational affiliations, indications of when the web resource was last updated, use of referenced material and the appropriateness of the language and content of the website (Bader and Braude, 1998; Kunst et al., 2002).

Although the process of designing and developing these tutorials is still in the early stages, the feedback from the students involved in the user testing and from tutors from the various departments involved to date have been extremely positive. Although each group of tutors could identify slightly different ways of using the tutorials, this is accounted for in the design (LP), as is consideration of integrating links to the information skills tutorials from TalisList, at the appropriate sections of each course. It is of note that some themes will be reiterated throughout the tutorials, for example, themes relating to plagiarism, critical evaluation, appraisal and reflection on the process, in order that these messages are available to the student at different stages in their learning readiness (McAvinia and Oliver, 2002).

CONCLUSIONS

It is of note that the activity described here began when an academic asked a librarian for assistance with the technical management of a reading list. It is apparent that this discussion occurred at a fortuitous time, as it has led to an interesting, and, we believe, a productive series of activities. It is also apparent that this type of discussion between academics and librarians is comparatively rare, especially in the context of e-learning (Markland, 2003). As Markland points out, however, when academics have sought the assistance of library staff: ‘they find such help invaluable’ (quoted from the conclusion). The case study presented here demonstrates another point made by Markland, which is the need for dialogue on an individual and a group basis. The literature from the librarians clearly shows they are not only ready and willing to talk, but they also have a substantial body of knowledge and skills in networked learning and are developing services to increase the support for all types of learning.

Our study has also highlighted the fact that information skills are rarely explicitly stated in the learning outcomes for any levels of modules. It seems to us that many that academic find it difficult to articulate the information and literacy skills they expect their students to demonstrate at each stage of their course, and, in fact, to articulate their own knowledge about information searching and retrieval. This suggests that these skills are part of the tacit knowledge (‘that which we know but cannot tell’ Polanyi, 1967; Eraut, 1994) of academics, which students appear to learn through a process of implicit learning or inference, rather than explicit teaching. The dialogue between the academic and the librarian has demonstrated the value of pooling their shared knowledge and expertise in identifying such problems and finding solutions which improve and develop the students’ learning environment.

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