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Enhancing teaching and learning at UCL: the Access to Core Course Materials Project and the Key Skills Web Development Project

Abstract:

Reports on two projects at University College London (UCL) involving collaboration between information specialists and academic departments to support the university's Learning and Teaching strategy. The Access Project is developing an electronic course materials system, and the Key Skills Web Development project is delivering customised skills resource material online.

The Higher Education Funding Council for England (HEFCE) has created the Teaching Quality Enhancement Fund (TQEF) to support universities' Learning and Teaching strategies. In 2000 University College London (UCL) received a major grant from TQEF to undertake a number of projects in this area. This paper reports on two of these projects. The projects investigate the ways in which central units can manage and distribute information and resources to support learning and teaching. They provide an opportunity for collaboration amongst the departments within the Education and Information Support Division at UCL, (which includes Education and Professional Development, Library Services, Media Resources and Information Systems) and academic departments. Both projects reflect the university's educational strategy which:

> supports the equipping and training of students in key skills, including the use of communication and information technologies (..); the university combines what is best in traditional and new approaches to education.

The Access to Core Course Materials Project and the Key Skills Web Development Project both involve partnerships between information specialists and academic departments, although the approach that they have taken differs. This paper outlines work to date on the two projects, contrasting their approaches towards working with departments. It considers first the Access Project, an 18 month study jointly based in Library Services and Education and Professional Development (EPD). The Project was launched in July 2000 to examine the feasibility of providing course materials in electronic format. It has taken a 'ground up' approach to developing a system to meet departmental needs, by exploring in detail the way in which departments currently

operate. The Key Skills Web Development Project is a 12 month study launched in July 2000 and based in the EPD department. In contrast to the Access Project, it aims to provide a central website to support skills development which can subsequently be customised to meet the needs of departments.

Developments in information and communications technologies offer the possibility of new initiatives in teaching and learning in higher education. The Web is increasingly used to deliver a range of materials and resources. Arguably, this approach represents one way of enhancing education whilst coping with increasing student numbers and a decreasing unit of resource[1]. In such a situation, effective development depends on a true partnership between those designing resources and the staff and students who will need them.

Background to the Access to Core Course Materials Project

The Access to Core Course Materials Project began with the idea of producing traditional study packs of course readings in electronic form, building on the eLib funded electronic reserves and on-demand publishing projects such as ACORN[2] and its successor service HERON.[3] Because the Access Project was concerned with the use as well as production of electronic study packs, features such as multimedia and interactivity were examined. Consequently various 'Hybrid Library' initiatives and Virtual Learning Environments have also been considered. Following a study of departments' needs, and with reference to the various external digital initiatives, several models of electronic course materials systems are being developed, incorporating various degrees of pedagogic sophistication. Several of these will be considered in this paper.

While the other TQEF projects were based in EPD, it was important that this Project received input from Library Services, because the Library already provided teaching support services for printed materials. The possibility of extending these services to include digital material is being considered, while attempting to co-ordinate this with work that departments are already undertaking.

The needs analysis

A needs analysis of academic departments at UCL was built into the first six months of the Project to investigate what constitutes 'core course materials' and how this differs between subject disciplines. It also examines how the current teaching support services offered by Library Services are used by departments and their attitudes towards them. Finally existing digital initiatives within departments to improve access to core course materials are being explored. The needs analysis uses a variety of methodologies including, survey, interview and case study techniques. Several models of electronic course material systems have been developed and will be refined as the work progresses. Each model will be assessed in terms of likely costs and suitability for departmental needs. It is anticipated that a pilot service will be launched in Summer 2001 based on one of the models.

The models

A basic model of an electronic course material system was developed from an analysis of the survey data collected from departments. The model includes the types of information that the system should include, and features it might incorporate. Two other contrasting variations are discussed, based on systems currently operating within two academic departments. These models will be assessed to determine their suitability for other academic disciplines.

The basic model

The needs analysis survey suggested that in order to meet the needs of departments an electronic course materials system would need to:

- incorporate a range of different types of printed materials, including copyright controlled materials such as journal articles and non-copyright materials such as lecturers' handouts and notes;
- have the facility to include non-textual material, such as audio files and images;
- include a fast and effective copyright clearance system for copyright controlled material;
- be easy to administer and easy to update by academic departments (as well as central services) as some information would change relatively frequently;
- be customisable to meet specific departmental requirements.

The Case Study Models

The survey revealed that a number of departments were already using some form of electronic delivery to make course materials available to their students. Case studies of several of these departments were undertaken and two examples are discussed below. They include a department within the medical school and a humanities department; consequently their approaches differ significantly.

Department 'A' is part of the medical school and takes predominantly postgraduate students. Course materials are available from a website to support an MSc and Diploma course. The site was developed and is maintained by the Librarian that serves the department, although the initiative was led by academic staff. The website has the following features:

- The site is relatively simple in design using basic HTML files, making it easy to update;

- It is structured around the course outline with links to lecturers' notes, handouts and slides in a variety of formats including Word documents, PDF files and PowerPoint presentations;

- Reading lists and further information about the course are also available from the site, although there are no links to full text articles at the present time;

- A system is in place to ensure lecturers provide copies of course materials for inclusion on the site.

There is a considerable amount of support for the system from both students and academics, which demonstrates that a course materials system can still be effective while remaining relatively simple.

A contrasting model is provided by Department 'B' which is a humanities department with a large number of undergraduate students. They have developed several websites that form an integral part of courses. The work was funded in part by the Higher Education Research and Development Unit (HERDU), based in EPD, who provided some technical support. The websites include the following features:

- The pages are designed to be visually attractive with a large number of images;

- Many resources are available from the website, including the course outline, reading lists, digitised set readings and links to resources available elsewhere.

- The site also has several multimedia features such as sound files which can be downloaded.
- A communication function is available and students can post messages to a bulletin board in relation to the courses.
- Because they support a range of pedagogic functions these sites resemble virtual learning environments; a WebCT version of one of the courses is available.

In contrast to Model 'A' this work is largely the initiative of one lecturer who maintains the site, regularly updating links and posting messages to the bulletin boards. The work is based on a highly developed pedagogic model and has required a considerable amount of investment in terms of staff time and resources. Unfortunately it is not fully supported by the rest of the department, therefore its future is at the present time unclear.

These two models demonstrate the range of materials that can be included in a course materials system and the different levels of technical and pedagogic sophistication. The more sophisticated system, integrated into the course structure, inevitably causes a greater number of problems, partly due to the increased need for technical support. It may also cause difficulties because it challenges departmental thinking about teaching and learning. A simpler system based around a course outline is easier to establish and maintain at a departmental level. Despite differences, the models have a number of features in common, including:

- a dedicated website to correspond to a particular course;
- material, such as readings and lecturers notes, linked to a course outline;
- regular maintenance to ensure material is up to date.

Customising the model

The needs analysis suggests that there are a number of requirements specific to individual departments, as well as common features outlined above. Ideally a service would offer and support various levels of sophistication and a range of features such as communication tools. This project will continue to investigate the attitudes of academic departments towards electronic delivery of course materials and will develop further models, considering in particular the time and resources costs associated with each, and the features that help or hinder its uptake within departments. It is hoped that this 'ground up' approach will ensure that when the pilot

service is launched it will be effective in meeting departments' needs and will be greeted with enthusiasm.

Key Skills Web Development Project

The Key Skills Web Development Project has been established to provide web-based support for students' skills development. The project aims to provide resources, paper-based references, and information on opportunities for skills development, as well as facilities for logging achievement and reflecting on learning. It is intended to be a 'one-stop shop' for key skills at UCL. The site forms part of the overall key skills pilot currently being led by EPD. Several academic departments are already involved in this pilot, and the development of the website will help to bring information specialists – in this case, web developers – into closer partnership with academic staff in these subject disciplines.

Background

In recent years, key skills have increasingly become part of the higher education agenda – both in terms of improving learning and teaching, and in terms of the role of the university in educating graduates for employment[4]. Many key or transferable skills (such as oral and written communication, self-management and analytical thinking) are embedded in degree programmes, sometimes to the extent that students do not realise these skills are being developed in tandem with their specialist knowledge[5]. One focus of the key skills debate has been on ways of helping academic staff and students to articulate these skills within degree courses. This in turn enables students to identify and concentrate on less developed areas and to improve them. Academic staff are encouraged to help in this process, although this is sometimes problematic because of the weight of their workloads and the existing demands on the curriculum. It may also be the case that key skills fall outside the experience or tradition of academics and their departments. As a result, it has quite often happened that explicit development of key skills at university level has become the responsibility of a central unit or team, often within the Library, Careers Service or Students' Union[6].

Key Skills Delivery via the Web

In cases where a central unit takes or is given responsibility for skills development, it may have sufficient resources to begin to work with academic departments on tracking skills in degree courses. However, the issues of workload and curriculum overload (as mentioned above) affect the rate of progress. In many cases, such a central team will try to provide generic materials for students in the first instance – particularly covering academic skills.

In this context, the web can be a valuable tool: it allows a centralised service or team which may have no regular or scheduled contact with students to provide a single, constant point of access to material for all, independently of degree disciplines. However, there are some disadvantages: such a website needs regular cross-campus publicity to alert students to its existence; there is no guarantee that students who need the material will find it or access it at the right time; and as it is generic material, aimed at all users, some students may find it irrelevant.

This project is working to a model for web-based delivery of support for key skills which aims to resolve some of these issues. Like much of the support for key skills and study skills currently online, it has been based initially on the provision of a central website. This 'core' site contains information and resources for three groups of users: staff, students and graduate students. However, the model also allows users to access this set of resources via a tailored departmental key skills homepage. The departmental homepages are designed with the aims of:

- allowing departments to prioritise certain skills and corresponding resources at relevant points in the course
- giving students a specific route into particular resources
- providing a 'personalised' front-end to the site – a departmental, customised webpage rather than a central 'anonymous' one
- giving ownership of skills development to departments without adding to the workload of staff in those departments

These departmental key skills pages are not intended to be uniform in design or content, but rather allow departments to make the best use of the central resources by

customising a number of routes into the database for their students. The aim is to try to move away from static pages of generic material, and instead to build a database of resources which staff can add to, with customised front-ends for departments. This is being done through a series of discussions with departments, followed by the development of webpages which reflect their particular needs and requirements from such a resource.

When complete, the site will allow departmental access to a core database. It could also carry online student profiles – a paper-based profile is being piloted this year. The profiles encourage students to record and track their skills development and hopefully to use relevant resources from the site in order to do this. A search mechanism will allow them to trace the most useful information from the database at given points in their courses – allowing best use of the time they spend developing key skills.

In this way, a central resource will return responsibility for the development of skills back to the student via their department, but will allow the technical and information management aspects of this process to be undertaken centrally. It is planned to allow academic staff to register new materials for student use – thus enabling them to update the resource bank independently and even categorise and 'rank' resources. This is important in giving some ownership to course teams in departments, but it will also help to ensure that the set of materials held on the site will not become outdated and static.

The project is currently drafting customised pages for a number of departments, and work has begun on building the database to sit behind this site. The existing core site is available at http://www.ucl.ac.uk/keyskills/.

Conclusions
The projects we have described here have had a common starting point: the support and implementation of the university's learning and teaching strategy, and the exploitation of new media to help in this process. Both projects rely on the

partnerships between information specialists – the project teams and web developers, and subject specialists – lecturers and academic staff.

However, in order to make these partnerships more effective, and to use appropriate technological means to meet departments' needs, there are contrasting approaches. This is necessary because of the nature of the information being managed by these projects. Course materials, and effective ways of delivering them, are essential to departments. Each department has already spent time and effort on these materials even if they have not used new media to deliver them in the past. Consequently, the Access Project builds on existing partnerships between academic departments and the Library's Teaching Support Services. Key skills, on the other hand, are part of a wider university strategy. Making these skills explicit in the curriculum is something that may fall outside the experience of academic staff in subject disciplines, and new partnerships are emerging between EPD and departments to address skills development. In this context, the 'core' source of skills materials is useful in the first instance, before considering what an individual department might wish to provide for its students.

The centralised approach in relation to key skills is to some extent based on government policy, which wants higher education to trace and record development of skills. Part of the work of the Key Skills website project, and the UCL Key Skills pilot as a whole, is to take this overall policy and re-interpret it with departments to allow them to take ownership of the policy and provide skills resources their students need. The Access Project, on the other hand, helps to provide an overall picture of what departments may need in relation to delivering course materials. In this case, a project could inform future university planning in relation to the availability of digital materials, the role of the library and other services in providing these, and sharing good practice between departments. This in turn could be disseminated to a wider audience, and inform future initiatives nationally.

Although these projects share the common objectives of managing information and helping academic staff support student learning, they will achieve this in different ways. One involves re-interpreting prescribed policy in order to make it meaningful and realistic, whilst the other involves identifying emergent patterns of practice in

order to create policy. However, importantly, both projects have adopted similar technical and organisational systems to achieve this. Both, for example, have opted to manage resources via simple websites tailored to departmental curricula. Equally important though, is that both have progressed by fostering a strategy that allows a dialogue between the individual needs of users and the collective requirements represented by central information support services.

Contact Details

Work is continuing on both of these projects during 2000/01. For further information please contact:

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References:

[1] Daniels, J. (1996) *Knowledge Media and Mega-universities* London: Kogan Page

[2] Project ACORN (Access to Course Reading Via Networks) was launched in the mid 1990s and was a partnership between Loughborough University, Swets & Zeitlinger BV, and Leicester University Library. It explored the potential of delivering high-demand material electronically to students, across the campus, via networked computers, and developed and implemented a model for effectively managing the whole process, from requesting reading lists from academic staff to the consultation of the text by students.

[3] HERON (Higher Education Resources ON Demand) was a phase III eLib project which has now become a service. It has established a database of digitised texts and negotiates copyright clearance for the material. Higher Education Institutes have been invited to join HERON during its pilot phase. More details are available at: http://www.heron.ac.uk/

[4] Higher Education Funding Council for England (1999) *Widening participation in higher education: Funding Decisions* Report 99/24

[5] McLeman, P. & Smith, P. (1998) 'The Career Management Initiative at Buckinghamshire Chilterns University College' in Stephenson, J. & Yorke, M. (eds) *Capability & Quality in Higher Education*, pp. 102-111

[6] Bennett, N., Dunne, E., & Carré, C. (1999) 'Patterns of Core and Generic Skill Provision in Higher Education' *Higher Education*, 37, 71-93