ABSTRACT
        This issues paper, the fourth in a series of eight, is
intended to distill formative evaluation questions on topics that are central
to the development of the higher and further education information
environment in the United Kingdom. As the online environment becomes a
feature of teaching and learning, it offers lecturers the opportunity to
provide their students with active links that will take them direct to
learning resources. Preliminary evidence suggests that the context in which
this linking is done is not always as helpful as it might be. This paper
highlights some of the pitfalls encountered so far in providing links to
online resources for students. The need to provide context is apparent.
Effective resources for students are organized, with headings that explain
their use and explanations that make the purpose of the link clear to the
student. It is important to maintain links, and to be sure that URLs have not
disappeared or changed ownership. Some sources of help in creating links to
online resources include libraries and librarians, Web resource persons, and
other members of the teaching or learning unit. (SLD)

Providing Links to Online Resources for Students

EDNER Project

IssuesPaper 4

2

Providing links to online resources for students

As the online environment becomes a feature of teaching and learning, it offers lecturers the opportunity to provide their students with active links which will take them direct to learning resources. Preliminary evidence however, suggests that while there is some enthusiasm for linking students to digital resources, the context in which this is done is not always as helpful as it might be.

The evidence so far has come from a study of University websites. As online reading lists become more widespread, and as universities and colleges adopt Virtual Learning environments (VLEs), it seems likely that the incidence of use of dynamic links will increase. Thus lecturers who have not until now provided support for their students in this way, and who may not be familiar with what online resources are available, may begin to use these tools as a matter of course.

It seems timely therefore to highlight some of the pitfalls encountered so far, and to suggest some ways in which these can be overcome.

The need to provide context

There are many examples of dynamic lists of links being used to promote online resources to students, especially through departmental websites. Although many such lists are well thought out, some have little or no context to assist the student. A list of several hundred alphabetically arranged acronyms conveys little until the student is sufficiently familiar with his/her subject area to understand what some of these are and to pinpoint the resources which are needed (and by then, of course, the list may have become superfluous). Nor is there meaning in a random collection of online learning resources interspersed with leisure sites, TV reviews, holiday pictures, street maps etc., and headed 'Useful links'. Useful to whom, and for what?

As a small collection of online links begins to grow into something larger, it is worth taking time to organise it into an effective resource for students

- plan an overall structure for your links
- arrange groups of links in simple categories
- provide a heading for each group which explains clearly to the learner what is there
- differentiate between links to high quality academic resources which might provide useful material for coursework assignments, those more

suitable for researchers and those which are for information or leisure use.

The need for accurate resource description

Some online resources have names which are self-explanatory; Digital Egypt, for example, or History On Line. However many do not, and it can be difficult to convey to the student in a succinct way, what such resources provide. For instance, try to define BIDS in 20 words or less. Not easy! As a result, it is quite common for resources to be described in ways which are unhelpful, misleading, or quite simply wrong. BIDS, for example, has been described on academic websites as 'a WWW search tool', 'a useful admin site', or a 'useful link'.

A brief description of the purpose or content of each resource may be of considerable value to the student, and a good source of descriptive material is the resource's website. Many home pages contain a short summary which can be easily adapted for this purpose. For example,

- COPAC provides online access to the merged online catalogues of 22 of the largest university research libraries in the UK and Ireland
- AVANCE is a specialist database of audio-visual materials for use in higher education
- ZETOC provides access to the British Libraries Electronic Table of Contents of current journals and conference proceedings.

And BIDS?

- BIDS offers access to bibliographic data, scholarly publications and research data, and also the ingenta journals full text service

Why authentication may prevent dynamic links from working

The facility to provide an online reading list, with dynamic links direct to the books, journals, journal articles or websites is an attractive service to offer students. By clicking on a book title, the student is linked to the Library catalogue, from where it may be possible to check its location, availability and lending conditions. Or when clicking on a journal title, the student is taken direct to its electronic version. When journal articles are cited, however, this 'linking back' may not work, when the link was created during a journal search session requiring user authentication. The student will simply be presented with an error message, and will have to carry out her/his own authenticated search in order to retrieve the article.

The need to maintain links

'Good housekeeping' is important in the online environment.

- **disappearing URLs** – links to reliable academic resources, such as those provided by JISC, are unlikely to disappear without warning or automatic redirection to a new URL. However, links to web pages can be very transient, leading to error messages. If you accumulate several such links, your resource may appear to be poorly maintained and managed.
- **URLs which change ownership** – once a URL is no longer used by its originator, other agencies (not always reputable!) may acquire and use it to market their own products and services. So it is quite possible

that you will find your links taking the student to somewhere quite different from where you intended them to go.

It is therefore worth spending time on a regular basis to check that your links are still active, and still pointing to their intended destination. Although software can check that links are live, human checking may be necessary to determine whether content has changed - it is not unknown for a domain name to be taken over by a pornography site!

Where to go for help
Some possible sources of help and guidance when creating your links to online resources might be:
- **Your institution's library** – which may provide training for you or your students in the choice and use of online information resources
- **Your subject librarian** – who will be able to provide help and advice on quality subscription and free resources for students in your subject area
- **Your departmental webmaster or VLE adviser** – who will guide you through the process of creating live links
- **Your learning and teaching unit** – who may provide training in the development of a high quality online environment

Conclusion
Providing a successful online working environment is a complex process, of which linking to resources is only one small part. It is hoped that this issues paper may provide some guidelines which will foster the creation of useful and appropriate resources for the student.

EDNER Key Issues papers are intended to distil formative evaluation questions on topics which are central to the development of the UK's higher and further education Information Environment. They are presented as short check-lists of key questions and are addressed to developers and practitioners. Feedback to the EDNER team is welcomed.

Please address enquiries and comments to the EDNER Project Team at cerlim@mmu.ac.uk

EDNER is being undertaken by CERLIM at the Manchester Metropolitan University with CSALT at Lancaster University