



Teaching and Learning and the Internet

More than just an extra resource

Use of the Internet is a key part of learning for most students today. But getting students to use it to stimulate deeper learning, rather than encouraging shallow, surface learning, is a challenge for us as lecturers. Students will learn more and gain a better understanding if they are challenged in the learning process and not allowed to sink into a comfortable, safe and uniform approach to learning. What is safe rarely stimulates. Here we consider how the Internet can be used to challenge students.

An excellent reference for the use of the Internet in teaching economics is [Using the Web to Teach Economics](#) – one of the guides in the *Handbook for Economics Lecturers* published by the [Economics Network](#).

Much has been written about what tutors can do in lectures, workshops and seminars to add variety and spice, from 101 varieties of group work, to problem-solving exercises and presentations. We do not wish to add to this voluminous list, but rather consider how the Internet might be incorporated more into what we do already. Admittedly the Internet might be seen, and used, as a learning resource in its own right. However, we feel that its biggest contribution is in helping to underpin and support what we currently practise. If the Internet can stimulate the desire to learn, we have an obligation to explore how best to use it in how we teach.

Using the Internet in your teaching programme

How do lecturers use the Internet?

At the most basic level, lecturers ask their students to use the Internet as a reference source, simply to locate information. They might give specific Web addresses. How students then use what they find is left up to them. The information to which the student is directed might be to support seminar preparation or to help compile an assessed piece of work.

At the other extreme there are many examples on the Internet where whole courses are delivered via this medium. Course notes, readings, web-links, exercises, discussion boards, group work and debates are constructed in a virtual learning environment (VLE), creating a totally Internet-based learning experience. The courses and resources provided vary in quality but they do show what might be achieved. Even if our courses are classroom based, there are many ways in which our courses can be more Internet based and student centred.

Exploring using the Internet

The Internet is a store of knowledge and all students need to learn how to tap into it in an academic way. The danger is that they see the use of the Internet in higher education as a simple extension of their use of it at home. Exploring should be done with purpose and discretion. To avoid surfing through only marginally relevant sites, it is a good idea for them to be offered some guidance in using the Web to find high quality economic resources. Perhaps the best source of guidance is the [Internet for Economics](#), which is a tutorial on making effective use of the Web in economics.

We all teach courses that are in some respects unique. Introductory Economics is clearly different from Public-Sector Economics or Intermediate Microeconomics or Economic Integration in Europe. What distinctive resources, located on the Internet, are relevant to you and your course? Early in the seminar programme, possibly right at the beginning, get students to find out; make them explore and discover.

Identify five websites which contain information that is likely to be relevant to this course of study.

If your course is highly specialised then students may require some further guidance. Offer some but not much. The key is to get *them* to explore and discover, to act as independent learners. In any programme of study we should seek to establish such principles as early as possible in the learning process. The Internet could be crucial in helping to establish a more independent, student-centred, learning role.

The use of the Internet as an exploratory device is something that can be reinforced over the year. Students can be asked to explore specific issues or events. It is particularly useful in investigating those issues and events which are current, where library resources are likely to be extremely limited or non-existent.

In a world trade course, for example, try asking students to explore the issues behind various WTO rulings and summits. These issues could then become the basis of seminar discussion. If you were to depend on library resources to inform such seminar debate, not only would references be sparse, but the diversity of views which such issues generate would be impossible to capture. Most students would, predictably, rely upon the main broadsheet newspapers. The Internet, in this respect, is like being released from a cage. We can, as tutors, ask students to consider contemporary events knowing that resources are there and easily accessible. All students must do is search and discover. Students will quickly come to see the relevance of their study and the world around them.

Many students seem to know little about what is going on around them. If nothing else, at least by using the Internet in this manner we can make them take note.

Information gathering and the Internet

The greatest use of the Internet is likely to be in relation to gathering specific information to perform specific tasks or address a specific problem.

In this respect the use of the Internet in seminar preparation is likely to be its greatest and most relevant use. Why not ask questions that require students to identify or locate relevant websites and then extract information?

Using the Internet find suitable websites that supply information on house prices over the past three years. Once you have found such information plot the figures and comment upon the trends the data reveal.

It would be so easy, as a lecturer, to find and plot the data yourself, asking students merely to describe the trends presented before them. But they will have learnt so much more by hunting down the data themselves and presenting their findings. You could give them a starting point by referring them to the [Hotlinks section](#) of the book's website. If this had been a library-based exercise, with a large number of students chasing a very limited number of sources, such sources would have to be placed in a short-loan collection and students would have to be told where to find the relevant information as a consequence. There are no skills in data retrieval learnt there – all students would have learnt from the exercise would be that the library has a section called Short Loan and that's where tutors put information that lots of people will need to use!

The recession of 2008/9 led many countries to use fiscal policy to boost aggregate demand. Using the Internet, compare the approaches of three different countries and assess the extent to which they could be seen as pure Keynesian.

Central banks, in response to the continuing recession after 2008, have used unconventional measures to boost aggregate demand. Identify the measures that have been used by (a) the Bank of England; (c) the US Federal Reserve; (c) the ECB; (d) one other central bank.

Assessment and the Internet

Given the over-burdened library resources of many institutions, setting largely book-based assessments has become increasingly problematic over the past few years. The more specialised the question asked – and by implication the more sparse the resources available – the more students complain about getting access to the resources they require. In this respect the Internet can offer some relief both to students in finding relevant information upon which to base their work, and to tutors in being able to ask the types of question they want to without worrying whether there are sufficient copies of a text available.

So it is worth looking at the Internet before devising an assessment programme or question simply to identify how it might support what you ask. If students can get information with a minimum of fuss and delay, you will add to the learning process rather than contribute to the frustration many currently experience.

A logical step follows from using the Internet to support traditional assessment programmes, and that is to focus upon the Internet as an independent assessment device.

The most elementary way in which the Internet might be incorporated into assessment is to allocate part of the assessment grade to students demonstrating, via referencing, that they have used the Internet in compiling their assessment. This is hardly a discerning assessment of use of the Internet and certainly undervalues its potential as an assessment device.

However, by selecting questions of a contemporary nature students would, by the nature of the question, be forced to use the Internet and the exploratory skills they had learnt over the year. If they did not use the Internet they would be likely to produce a very narrowly focused and inadequately researched piece of work.

In some areas of economics it is possible to use the Internet in a more interactive way. For example, you could base an assessment around a simulation, such as the [Virtual Chancellor](#). This is the topic of *Teaching and Learning Case Study 8*.

The Internet and its contribution to skills development

So far it has been identified that the Internet can be used to: investigate and explore; find specific information; and aid assessment. In addition to such learning processes the Internet also offers the development of key skills which we are all increasingly being asked to identify and incorporate into our teaching programmes.

So what skills development does the Internet offer? Most are generic and will be transferable to all components within a programme of study. The skills developed would be particularly useful to those components of study which involve students conducting their own research project. However, any assessment would benefit from having a knowledge of the Internet and what it can offer.

As mentioned previously, the Internet develops and enhances students' ability to explore for themselves. In addition, students will, in the process of exploration, be required to retrieve information and data, and in certain instances manipulate it to their needs.

Students will also need to develop their skills of evaluation. Given the unregulated nature of the Internet and the information on it, students will need not only to assess the relevance of an article or item of news, but to evaluate its quality. A point that always needs to be stressed to students when extracting information: is it any good, and how valid are the arguments it might make?

Possibly the most important skill the Internet develops is to encourage students to become independent learners, and to take more responsibility for finding information in order to answer the questions that they have been posed.

All of the above skills are positive attributes that we would all like to see developed in our students.

Some cautionary points in using the World Wide Web

Despite the huge potential of the Internet to aid and improve what we do, there are downsides too – as no doubt you are aware.

The [Centre for Education Futures](#), based at the University of Western Australia, identified the following points as weaknesses in using a purely Web-based teaching and learning programme. Their observations are made on the premise that the whole teaching programme is Web based, unlike the arguments in this case study, which have focused upon the integration of the Internet into existing teaching programmes.

- Courses may focus on the technology rather than the content.
- Web-based course materials may be time-consuming for teachers to develop.
- University teachers must accept a new teaching paradigm, that of facilitator and manager of learning rather than a disseminator of information.
- Some students are technophobic just like some teachers.
- The active learning required by Web-based course activities may be difficult for students conditioned by prior courses to be passive.
- Copyright violations may be easier to commit on the Web and are certainly more public.
- Students without Web access are excluded

(see also <http://wings.buffalo.edu/publications/mcjrnl/v4n1/intern5.html>)

Another issue facing many lecturers is the students' use of [Wikipedia](#). Some students are likely to see it as the first and last port of call when researching a topic. It is probably

advisable, therefore, early on in the course to have a discussion with students about the site, how it is written and the credibility of its content. It also a good idea to discuss the use of other [Wikimedia Foundation](#) sites, such as [Wikiversity](#), and [Wikinews](#) and also of wikis more generally.

All the above are important points and reflect some difficulties that higher levels of Internet integration into the teaching programme are likely to create. However, all can be overcome in time, none is insurmountable and should not detract from any attempt to use the Internet.

The most notable difficulty might in fact be the need for teachers to change and come to terms with their new role as facilitator and manager – a role that is clearly alien compared to our past and even current experience. However, rather than by choice, many of us are being forced down the Internet route by rising student numbers and increasing research pressures. Rather than letting the pressure build and attempting to do what we did in the ‘good old days’, but with all the added commitments placed upon us, time invested in the Internet and a student-centred approach to teaching and learning might be a way of dealing with these problems. It is just a matter of adjusting to the new paradigm and its implications.