

## Knowledgeshare

# Web alert: online learning

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## Introduction

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The popularisation of the Internet as a means of communication has prompted the development of many new concepts and the rethinking of approaches to many traditional activities. Distance learning is an idea that originated before the Internet but never really found its niche within the minds of the public. However with the real-time multimedia applications available via the Internet, distance learning, often re-packaged as e-learning, has become a growing force within the field of education. Match this with a growing realisation of the importance of lifelong learning, as demonstrated in *Working Together, Learning Together*, and suddenly the Internet is a tool that seems to be burgeoning with educational possibilities.<sup>1</sup> The following ten resources are a taster of the free online learning packages that are available to users over the Internet. If a budget is added into this equation then the range of possible sources grows exponentially. This article is by no means exhaustive and can't hope to fully represent the breadth of learning materials that are available on the Internet. Instead it aims to give the user a taste of what is available and thereby possibly whet the appetite.

## European Computer Driving Licence (ECDL): [www.ecdl.nhs.uk/](http://www.ecdl.nhs.uk/)

The European Computer Driving Licence is, as the name suggests, a continent-wide recognised qualification in computing skills. The designers of the course intend it to act as a basic benchmark, demonstrating that the holder is competent to use a computer across a range of applications, hence the use of the term 'driving licence'. The relevance to the NHS is that this qualification has been adopted as the baseline for computer competency amongst its staff. This web page is part of the general ECDL site, but is dedicated to the NHS. As part of an ongoing process, trusts around the country are developing ECDL test centres and learning centres and it is possible to search through these centres

from this page to find the one that is most easily accessible. The site also has brief descriptions of each of the seven modules that have to be completed to attain the ECDL qualification. The link titled 'Centre Forum' on the home page gives access to a range of resources for use by centres in teaching ECDL and for end users if they feel so inclined. These include a manual called 'Getting Started' that gives the basics on the use of the various software applications tested through ECDL and 'Assignment Workbook 2 with Answers' that explains and tests users on the various aspects of the applications they will be expected to use in the exam. This site, whilst relatively small, has a good range of resources for users wishing to learn more about ECDL or undertaking the qualification.

## Universities' Collaboration in eLearning (UCeL): [www.uce.ac.uk/](http://www.uce.ac.uk/)

UCeL is a collaborative venture involving six higher education institutions, represented through a website administered by Cambridge University. The site gives members access to a number of reusable learning objects (RLOs), online multimedia tutorials focusing on aspects of healthcare, related social studies and associated skills. The RLOs are normally created using Macromedia Shockwave Player and it may be necessary to download this piece of software (freely available from the site) to view them. At the time of writing two RLOs were available for trial use by visitors to the site; 16 RLOs exist in total although this number can be expected to increase. UCeL also links out to a large number of still and moving image galleries organised into three areas: general, health and medicine and microscopic images. At present UCeL can only offer membership to organisations, although this may change in the future. This site is a good example of a knowledge management approach to online education, sharing resources across organisational boundaries to minimise the duplication of effort whilst maximising the impact of those resources.

## The National Health Service University (NHSU): [www.nhsu.nhs.uk](http://www.nhsu.nhs.uk)

The NHSU has been set up as a learning resource provider specifically for those working within the NHS and associated social care services. Still a relatively new organisation, the NHSU was recruiting for its first cohort of online degree students in July of this year and officially launches in the autumn of 2003. Whilst the organisation bears the title 'university' it will be attempting to meet the various education wants and needs of all NHS staff, offering a range of courses delivered in a flexible manner to match learning to the life needs of staff. At the time of writing no courses were running with the NHSU as it was coming to the end of its set-up consultation period. However, for those interested in the opportunities that will be offered by the NHSU, there are a number of resources on the site that will be of interest, including details of the initial courses that are being planned, full text copies of the consultation report and statements of intent for the organisation.

## PubMed Tutorial: [www.nlm.nih.gov/bsd/pubmed\\_tutorial/m1001.html](http://www.nlm.nih.gov/bsd/pubmed_tutorial/m1001.html)

The PubMed version of the Medline database seems to be one of the most heavily used resources in literature searching, certainly by doctors and quite possibly by other healthcare professionals as well. This is a statement based more on personal observation than any evidence base, so it is open to refutation (please see contact details below). Whatever its level of popularity this database is definitely not used to its full potential by most searchers. Most healthcare professionals have access to some sort of face-to-face training on the use of databases, often supplied by the local health library services, but that doesn't reduce the value of a comprehensive online tutorial system. This is just such a resource, compiled by the National Library of Medicine which operates the database in question. It deals effectively with all the areas of functionality of PubMed including limiting searches, saving searches for future use and the application of Medical Subject Heading (MeSH) in searching. This is a good resource, designed to allow the user to choose the correct elements to meet his or her information need.

## HealthKnowledge: [www.healthknowledge.org.uk/](http://www.healthknowledge.org.uk/)

Health Knowledge is a sizeable website of learning resources operated by a team from Harrow Primary Care Trust. Although originally created as an online

resource for healthcare professionals taking the Faculty of Public Health Medicine Diploma and Part 1 Membership Exam, the site administrators realised that the knowledge they had captured had wider applications and made the resource generally available on the Internet.

The site has a free registration process that must be completed to gain access to the full range of available learning resources. These resources have been expanded from being purely public health focused, although there is still a strong flavour of it within some of the learning materials, to be more widely applicable to healthcare professionals in general. There are 19 general categories of material including:

- approaches to research
- critical appraisal
- epidemiology
- equity, equality and health policy
- organisation and management of healthcare.

Each of these general topic headings has a varying number of individual learning resources attached. Each individual resource is written by an expert or group of experts in that field. Resources can be located by browsing through a list or by using the site's search facility. The level of complexity of individual resources varies across the subject areas, for instance, some of the statistical elements require a reasonable grasp of the subject to be understood. Overall this is an excellent resource for learning about a range of subjects vital to healthcare that are not focused directly on patient treatment.

## Supercourse in Epidemiology: [www.pitt.edu/~super1/](http://www.pitt.edu/~super1/)

The Supercourse ideal is to share information about epidemiological and public health issues as widely as possible around the globe. This site, run by the university of Pittsburgh, USA, contains 1092 lectures examining various aspects of public healthcare issues. Each lecture comprises of a series of Powerpoint-style slides with accompanying notes giving a fuller explanation of the subject area. There are five general subject areas of lectures:

- epidemiology
- special diseases
- public health
- telecommunication
- biostatistics.

Each of these areas has subheadings under which the lectures are grouped. It is also possible to access the lectures through author listings, alphabetical listings or through the site's own search facility. The level of knowledge presumed by each author is different and

so the appropriate audience for any of these resources changes from lecture to lecture. Certainly many of them would be suitable for medical students or healthcare professionals who do not specialise in the field of public health or epidemiology. The nature of the lectures also varies, from the highly theoretical to the thoroughly practical, e.g. a report of a food-based infection outbreak in a teaching hospital in the USA and how it was combated. Some of the lectures are region- or country-specific, so may not apply to the user, but there are so many here that this does not impact unduly on the overall quality of the site.

**HyperStat Online Textbook:** <http://davidmlane.com/hyperstat/index.html>

‘There are three types of lies: lies, damn lies and there are statistics.’

Mark Twain

That should perhaps read that there are three types of confusion, general confusion, specific confusion and statistical confusion and of the three the latter is worst. For those subscribing to this school of thought this may well be the online learning resource to help. This is a full text statistical textbook, broken down into logical sections with links out to sites that explore each concept in more detail and glossary links for all technical terms. The site is well laid out and the logical structure allows users to either browse through the sections in order or jump directly to the appropriate section to meet their information needs.

If this does not help with the statistical problems that face the user then a visit to the simulations and demonstrations page of the: **RICE Virtual Lab in Statistics**, [www.ruf.rice.edu/~lane/stat\\_sim/](http://www.ruf.rice.edu/~lane/stat_sim/), may well help. This is a resource that has been mentioned in a previous web alert, but it is worth revisiting as this part of the website takes what can be difficult statistical concepts and shows practical examples of how they work.

**Health Continuing Professional Development (CPD):**  
[www.health-cpd.org.uk/e-learn.html](http://www.health-cpd.org.uk/e-learn.html)

This website has been developed by a team at Addenbrooke’s Hospital as a gateway to various e-learning resources for use as part of healthcare professionals’ ongoing CPD. The various resources are grouped together under subject headings which can be browsed directly or accessed through an alphabet located at the top of the home page. Selecting any heading from the subject list area will

bring up a page that describes the scope of the subject area and gives links to the appropriate e-learning resource(s) and the home page(s) of the organisation(s) that produced the resource in question. Health CPD also has pages dedicated to various professional bodies within the field of healthcare and to indexes of more traditionally operated learning opportunities.

**University of Exeter Independent Study Guide:** [www.ex.ac.uk/%7Emjjeffri/studyguide/Contents.htm](http://www.ex.ac.uk/%7Emjjeffri/studyguide/Contents.htm)

This is not a healthcare-focused resource, but rather something of use to anyone who has spent some time away from direct study and is now engaging in e-learning. This study guide is designed by the University of Exeter to be used by both undergraduate and postgraduate students taking distance learning courses. There are definite challenges in studying via electronic resources and one of these is the difficulty faced in not having direct feedback to help with the development or honing of study skills. This guide is designed to help combat this particular challenge and help e-learning students to develop the style of study that is most effective for them.

## Conclusion

The Internet will not replace or overtake more traditional learning methods, it broadens the range of possible educational strategies without necessarily eclipsing any of them. In the constant search for more inclusive education systems, making learning available in the workplace or at home, through electronic resources offers the opportunity to engage individuals whose everyday lives might make it impossible for them to otherwise participate in courses. In the same vein, allowing professionals to study whilst maintaining their daily healthcare practices, through workplace learning and e-courses, seems a beneficial symbiosis of theory and experience. As with all new ventures some e-learning will work and some will falter, but the experience gained will certainly go towards making future learning more accessible and varied – something that should hopefully tell positively in the future of patient care.

## REFERENCE

- 1 Department of Health (2001) *Working Together, Learning Together: a framework for lifelong learning in the NHS*. Department of Health: London.

## ADDRESS FOR CORRESPONDENCE

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