Medical education via the internet: not just the preserve of exam takers

Robyn Webber

The internet has opened up vast new possibilities for medical education

Distance learning is not a new concept—schoolchildren living in remote areas of some countries have been taught by correspondence for many years, and in parts of Australia, children have been educated by two way radio ('The School of the Air'), for over 50 years. More recently in the UK, the Open University has made tertiary education accessible for many who would not have otherwise had the time or perhaps the opportunity for a university education.

THE INTERNET

The advent of the internet, however, has opened up vast new possibilities for distance learning, which in the past could not have been envisaged. Previous limitations, including the types of media utilised, their accessibility and delivery, no longer existed. New definitions for this type of study were introduced, E learning and web-based learning to name but two, but the premise was the same—the ability to study remotely from a classroom. As the technology underlying the internet developed, it became possible to display more than just text and images, and now a wide range of media are supported. The introduction of broadband brought faster download speeds and an increasing ability for real-time communication over the internet; video conferencing became more accessible and affordable as individual participants no longer needed their own ISDN line, and videostreaming became a reality, allowing videos to be viewed as they are downloaded. This made their use increasingly attractive, as previously for many, slow download speeds meant that on line video clips were not an attractive or practical option to use.

The advantages of the internet as an educational tool were quickly discovered by the medical community, and both undergraduate and postgraduate medical institutions throughout the world regularly make use of internet-based teaching programmes. These programmes can be flexible and adaptable for different groups, and updating material is relatively easy, as

compared with paper based teaching programmes. Particularly at undergraduate level, such programmes do not replace classroom-based teaching, but are used as an adjunct to more traditional educational methods.

At postgraduate level in the UK and elsewhere, doctors studying for examinations in many specialties can now make use of web based teaching programmes which have been carefully tailored to the needs of their specialty. For example, the Royal College of Surgeons of Edinburgh, along with the Royal College of Surgeons of Ireland, offers BeST (Basic electronic Surgical Training), a completely web based course for trainee surgeons; the Royal College of Obstetricians and Gynaecologists has StratOG, a paper-based course with accompanying website; and the Royal College of Physicians offers a medical masterclass, which is paper and CD-Rom based, again with accompanying website.

DEVELOPING WEB BASED MATERIALS

Developing good web based educational material is a complex task, with a number of key requirements which must be fulfilled. Before commencing a new project, there must be a clear idea as to its educational purpose, and a recognition that it will provide benefits for students which are not already available elsewhere. Equally it is important to avoid duplicating resources which already exist. Cost may also be a consideration, as a course or website, once established, does require to be maintained and content needs to be updated as appropriate. This content must be accurate and reliable, while images, audio and video clips must be of the highest quality possible. The content must be appropriate to the group for which it is intended—there is no point in developing material if it is not fit for purpose as it will not be used. Just as important as creating the educational material is the need for technical support and back up for the website where it will be posted. Although broadband is

increasingly available, it is not universal, and there are many people in parts of the world who still have access only by dial up modem, which results in significantly slower download speeds. This is a very important consideration, which can make the use of large file sizes impractical. Often now, especially for videos, two different download speeds are offered, with a smaller file size available for download for those with a dial up modem.

WHO PAYS?

With the internet now being so accessible, and with many of the associated costs falling, the question of who should pay for some resources remains controversial. While some, such as the courses described above, are clearly owned by a particular educational institution which may then charge a subscription for their use, where a general library of material exists, the requirement for payment is not always so clearcut. The question of whether general educational resources, medical or otherwise, should be available on payment of a subscription, be available selectively on pay per view, or be available to all by open access, remains controversial, and at present many issues surrounding this remain unresolved.

In medicine and surgery, while the need for specific courses designed for those studying for a particular qualification is well recognised, there is also a need for more general educational resources, which potentially may be of interest to health professionals in many disciplines. The *Postgraduate Medical Journal*, as part of its commitment to continuing medical education, intends to expand its current online resources. Although there will be some emphasis on material which is of interest to those sitting their MRCP, it is also intended to be of more general interest. The ability exists to collate different modalities including text, images and dynamic media including videos, audio clips, ultrasound and echocardiograms. There is the potential to build an educational resource of universal appeal, covering as many subject areas as there is material available. All material will be peer reviewed, so as to provide quality assurance. As this is intended to be a resource for everyone, suggestions for topics and material to be included are now being solicited. This is a resource which will only be as good as its contributors and users allow it to be.

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FURTHER READING

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