E-learning in medical education

John Sandars, University of Leeds, UK

E-learning is here to stay in medical education! This is the clear message from Rachel Ellaway and Ken Masters in this latest AMEE Guide. The authors begin by discussing the ‘e-learner’ but there is little critical discussion of what it means to be an e-learner at the present time. Technology is an integral part of the lives of young people, including undergraduate medical students. This has led to claims of a ‘Net Generation’ of ‘Digital Natives’ (Sandars & Morrison 2007). However, they are selective in how they use technology, with high use of mobile phones, instant messaging and social networking (e.g. Facebook and MySpace) and media sharing sites (e.g. Flickr and YouTube) (Sandars & Schroter 2007). They still regard face to face interaction as the best form of teaching and only perceive that technology is useful in teaching when it has clear advantages (Joint Information Systems Committee 2008). They also like to keep a clear separation between the use of technology for teaching and its use to support their active social lives. The clear message to educators is that technology in the curriculum has to be carefully planned and that there can be no assumption that it will be accepted by the learners.

The authors note the importance of ‘blended learning’ but examples are scant. It is essential that technology is not merely something added onto an existing course but is an integral part of how the course is delivered. A blog or discussion board is doomed to failure if the tutors expect their students to have an optional online interaction. However, it is more likely to be a success when the students have to collaboratively prepare a presentation to their group. Success is even more likely if the students can work with their familiar technology, such as chat rooms or social network sites, and the tutor can resist the temptation to enter these areas. It is important to curb the enthusiasm of tutors who want to appear ‘cool’ and ‘hip’. Students certainly do not appreciate this change in roles.

The authors recognize some aspects of the impact on tutors but an important tension is when they remain a ‘sage on the stage’ instead of ‘guide on the side’. Students may continue to regard the tutor as the fountain of all knowledge and this can be seductive for the tutor who provides increasing e-learning content. Technology allows the easy production of learning resources with escalating sophistication, from simple PowerPoint presentations and podcasts through online games to virtual worlds and simulations. Everyone is impressed by these ‘high tech’ resources but there are important questions as to whether this approach will prepare students for the future ‘messy’ world of professional practice. An important skill for lifelong learning is to identify, retrieve, evaluate and apply the vast range of information resources that the Internet can offer at the click of a mouse. The exciting potential of the Internet is that a rich and personalised learning resource can be developed and with the advent of Web 3.0 this can be easily managed (Sandars & Haythornthwaite 2007). Students may use internet search engines in their daily lives but often there is little finesse. The ‘Google Generation’ appear to lack the skills to identify important resources and to appraise the quality of what they have retrieved (Centre for Information Behaviour and the Evaluation of Research 2008). An
essential role for the tutor is to direct and encourage their students to use the internet as a learning resource but also to ensure that students become more critical of what they retrieve.

The importance of the institution within which the learners and tutors are situated is highlighted in the Guide but perhaps the significance is understated. Most institutions have spent large sums of money to implement virtual learning environments (VLEs) and to develop high quality learning resources. This expenditure usually results in the reluctance to support the use of alternative technologies, such as mobile devices. These devices feature convergence of many functions to allow a personal learning space that transcends the boundaries of institution, workplace and home. All of this can occur anytime and anywhere. Learning resources can be downloaded at specific geographical locations to make them more relevant to the learner and assessments can be immediately uploaded to portfolios and administrative systems. Most e-learning resources have a high initial development cost and this results in a reluctance to share high quality and innovative content between institutions. It always surprises me that almost identical resources are developed by institutions that are only a short distance apart.

The future of e-learning in medical education is hard to predict. We are likely to see increasingly sophisticated learning environments that feature virtual reality and games. These approaches are sure to impress and engage both learners and tutors but more fundamental changes have to occur if we are to meet the needs of learners. Technology will have to become more integrated into existing curricula and an essential aspect is to design creative learning spaces (Oblinger 2006). The boundary of the learning space can be wide, perhaps spanning the continents of the world, and learners can also simultaneously interact between the classroom and the workplace. The classroom can be transformed so that learners are actively using the internet, both individually and collaboratively, to work on projects. Tutors can set different tasks to the groups and the learners can share their experiences.

The future is already a possibility for medical educators. We all need to wake up to the exciting potential of e-learning in medical education and to consider that it offers something different instead of trying to prove that it is better than other approaches to delivering the curriculum. We can widen our vision by becoming aware of the current trends that are described on the web sites of Educause (www.educause.edu) and JISC (www.jisc.ac.uk). This latest Guide will act as a useful stimulus and hopefully it will ensure that the emphasis is about how to enhance teaching and learning and avoid being seduced by the latest technology.

References


Notes on Contributor

John Sandars is senior lecturer in the Medical Education Unit in the School of Medicine at the University of Leeds where he is also Academic Lead for e-learning. He has a particular interest in the research and development of new technologies to enhance teaching and learning. He is a University Teaching Fellow and was a WUN (World University Network) Visiting Scholar to the University of Illinois at Urbana-Champaign.

John Sandars, MB MD MSc FRCGP MRCP CertEd, Senior lecturer and academic lead for e-learning, Medical Education Unit, School of Medicine, Level 7 Worsley Building, University of Leeds, Leeds LS2 9LN. Tel: 0113 343 4193; fax: 0113 343 4190; email: j.e.sandars@leeds.ac.uk


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