Chapter 1 **Introduction**

The term e-learning can be defined in many ways. In essence, it is about the use of technology to deliver and support learning.

What is this book about? This book is a basic introduction to the world of e-learning.

Who is the book for? This book is pitched at learners and teachers who are considering using e-learning to learn or teach. The focus is on learners and teachers in undergraduate and postgraduate medicine but it will also be useful for all health-related staff.

We have used the term 'teachers' to include undergraduate supervisors, tutors, postgraduate educational supervisors and academic teaching staff.

1.1 Overview of the book

The approach of the book is to provide a framework for learners and teachers to make informed decisions about the use of e-learning and where it fits best. We will identify pitfalls and offer strategies to maximise the use of e-learning. Any views offered are grounded in theory and based on evidence and shared best practice. Examples of some high-quality electronic resources from around the globe are discussed and critiqued.

1.2 Basic issues

To succeed at e-learning, the learner has to succeed at learning. To succeed at e-teaching, the teacher has to succeed at teaching. E-learning should be seen as a tool to enhance the learning experience.

There is a basic question . . . is e-learning fundamentally different from any other form of learning? The answer is yes and no. It is qualitatively different in that instead of a sheet of a paper, there is a screen on a PC, laptop or mobile device. The focus of this book is adult learning in healthcare systems in the UK and across the globe. All healthcare systems and professions are increasingly seeking solutions to the challenges of time, finance, culture, ever-changing curricula and geography.

1.3 Challenges as drivers

Particular pressures on adult learners in healthcare communities include the competing demands of the need to maintain clinical, leadership and management skills with the need to continue delivery of the service. Learning in health systems has changed, with less emphasis on traditional educational methods.

Across Europe, including the UK, there have been specific challenges in the postgraduate arena with the implementation of the European Working Time Directive (EWTD) [1] from 1 August 2009 in respect of doctors in training.

With the ever-present need to deliver on-the-job learning in a cost- and time-effective manner, the additional use of technologies to support traditional learning has, at face value, logic. But for institutions and teachers, e-learning developments can be costly in terms of design and development, and also maintenance and appropriately trained staff to support learning.

1.4 The start of technology in learning

There is a view that all e-learning is a form of distance or distributed learning. Distance learning began in earnest with correspondence courses, following the introduction of the Penny Post in 1840.

The use of 'modern' technology, as we now consider it, as an aid to learning had its origins with the invention of the overhead projector (OHP) by Roger Appledorn in the 1960s. The OHP is a good example as it is clear that the technology was not an end in itself but a tool to enhance learning and teaching.

The history of what we now consider basic e-learning tools is recent. The forerunner of the Internet, the Advanced Research Projects Agency Network (ARPAnet), was funded by the United States for military purposes. The ARPAnet was launched in 1969 and paved the way for the

development of the World Wide Web by Tim Berners-Lee between 1989 and 1991.

The first email was sent in 1971 by Ray Tomlinson. There is some debate about who first mass-produced the PC and when. The Apple I was launched in 1976, quickly followed by the IBM PC in 1981.

The challenge for health educationists and their learners is to use the current and evolving technology to enhance the learning experience and to ensure it does not become a barrier to learning.

We have had widely used software such as Word and PowerPoint, increasingly sophisticated tools including Personal Digital Assistants (PDAs) and now smart mobile phones. In addition, the Internet has exploded with millions of websites.

One of the key advantages of this is instant access to information. This explosion in accessibility to online and distant electronic resources from around the world is a double-edged sword. There is, however, a need to quality-control information . . . There is now an information overload, or rather an overload of misinformation and an expectation of instant access to information in both our private and working life.

There is an argument that in the early days of e-learning there was less focus on educational pedagogy and that the technology drove the e-learning developments. This has now evolved, whereby most undergraduate and postgraduate learning departments related to health will have active e-learning strategies and use them to deliver and support a range of learning resources.

Not all e-learning is successful, but then neither is all face-to-face learning. As with any learning, effective e-learning has to be underpinned with sound education theory. A sound understanding of how adults learn and how best to facilitate interaction between the learners and the tools (the technologies) is required.

How does one measure success? This is an important question for individual learners, teachers and institutions. We hope this book will help those involved, namely tutors, lecturers, clinical supervisors and their learners, to be better informed of the pitfalls and possible strategies to maximise their learning, including e-learning. Technology continues to evolve at a rapid pace and we hope this book will provide sound principles upon which learners and their teachers can make a judgement regarding the use of e-learning and incorporate it where appropriate into educational programmes and personal study.

If we consider that the first email was sent in 1971, then there has been an explosion in technology in a relatively short period of time and all e-learners and teachers need a framework upon which to base decisions

about the use of e-learning. This will be increasingly important going forward. We hope this book is used as a resource to help steer and direct effective e-learning.

Reference

1   NHS Employers European Working Time Directive. http://www.nhsemployers.org/
    PlanningYourWorkforce/MedicalWorkforce/EWTD/Pages/EWTD.aspx [accessed
    on 13 October 2011].