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1 What is e-Learning?

● Introduction

All parts of the education and training system are enthusiastically exploring and implementing e-learning in one form or another. In many ways a revolution is under way and some have made the comparison with the impact on learning of printing and the mass production of books. While this is an appropriate comparison, there are numerous differences, not least the time-scale of the developments. e-Learning has exploded on the awareness of education and training professionals and widespread use has been achieved in a few years whereas printing took centuries to reach large numbers of people. The pace of change is accelerating and new approaches are being tried almost every day. e-Learning is a major force for change. It is not merely confined to formal learning but is also having an impact on informal learning.

Learners are using social network technologies to create and store content and to network with other learners and their tutors. Blogs enable learners to produce online reflective learning diaries that they can share with their peers and tutors. They can then comment on the entries so that it becomes a tool for interaction, feedback and reflection and thus far more useful than a paper learning diary. Wikis are special-purpose websites that assist collaborative learning by allowing groups of learners to work on creating a joint document. e-Portfolios take many forms but they can assess learners' progress, showcase their achievements and help them reflect and share their work with others.

Podcasting and vodcasting provide learners with learning resources such as audio or video lectures and expert interviews. They can also be used as a focus for learners to create audio or video resources to provide a focus for interaction, reflection and collaboration.

These are all powerful tools that are rapidly being introduced into all forms of education and training. In addition to these developments, there has also been considerable development of mobile equipment such as smart-phones and personal digital assistants (PDAs). These are now being increasingly used in colleges and have been given the name m-learning (i.e. mobile learning).

e-Learning is a general term covering many different approaches that have in common the use of information and communication technologies. Terms and concepts are very new and often different language and jargon is used to describe similar approaches. This can make it difficult to understand what is involved in the learning programme. In this book we are concentrating on the use of e-learning to free learners from a rigid timetable of attendance at a college or other learning institution. It includes the delivery of learning at a distance from the tutor or institution but also adds a degree of freedom to more traditional programmes such as adding online discussion groups to a lecture programme, using text-messaging to keep students informed of administrative changes, delivering a programme based on interactive multimedia learning materials in the college learning centre and a distance-learning programme with learners based across a whole country.

Some common terms that you may encounter are:

- online learning;
- computer-based learning;
- blended learning;
- learning objects;
- learning resources;
- distributed learning;
- mobile or m-learning;
- interactive learning materials;
- computer mediated learning;
- computer mediated communication;
- web-based training;
- web 2.0.

Universal definitions of these widely used terms have not been agreed. It is good practice to ask users of the terms to explain what they mean by them. Online learning and e-learning, for example, are sometimes used interchangeably while on other occasions are seen as different. The glossary at the end of the book provides explanations of many terms with which you may come into contact.

e-Learning and online learning are general terms covering a wide range of approaches. They may combine a mixture of different elements such as:

- information and communication technology;
- interaction;
- learning resources;
- collaborative and individual learning;

- formal and informal learning;
- support.

There is considerable variation in the way the components are integrated together. e-Learning can simply consist of visiting websites to locate material that can help you complete an assignment. The websites may have been specially produced as part of the education or training programme or may have been designed for a wider purpose. In many ways this is similar to asking you to visit the library to locate books and other materials. The teacher may provide you with a booklist or a list of websites or simply a list of topics. In both cases you need the skills to locate the material searching either a library or the world wide web. There are both things in common and distinct differences within the search skills involved in traditional and e-learning.

e-Learning is not just confined to using the contents of websites but also includes creating content through websites that offer access to personal blogs or encourage collaborative working through wikis. There are sites that allow students to share sound and video recording in the form of podcasts or vodcasts.

Traditional learning methods are generally tutor-centred in that they determine what, when and how you study. e-Learning offers you more freedom to choose but in doing so you also have increased responsibility for your own learning. This means in practice that you need to plan your studies so that you achieve your goals. Managing your time becomes a major factor in maximising your choice of when to learn. You can no longer simply look a week or two ahead; you must consider the whole programme in order to plan and manage your work. You cannot rely on the tutor to remind you of the date that an essay is due or of the requirements of the course assessment. You need to become as self-reliant as possible.

● **Comparison of traditional and e-learning skills**

Table 1.1 shows a straightforward comparison of traditional and e-learning skills. Many of the individual skills can be broken down into a variety of sub- or related skills, for example:

- *Reading skills*: browsing/scanning skills (particularly important when using the world wide web to locate relevant websites);
- *Writing*: summarising the key points; referencing information; keeping records;
- *Research skills*: searching skills are essentially a part of research skills.

Traditional skills	e-Learning skills	Difference
Time management	Time management	Time management is critical in e-learning since it provides greater opportunity to take control of your own learning. This is also true of other forms of open and distance learning.
Acceptance of responsibility	Acceptance of responsibility	e-Learning provides more opportunities for learners to take responsibility for their learning than does traditional learning. This is also true of other forms of open and distance learning.
Planning	Planning	The benefits of e-learning include giving learners more freedom to choose when and how they study so placing on them the emphasis for planning. Traditional courses are often determined by the tutor and are accompanied by timetables and study guides. This is also true of other forms of open and distance learning.
Searching skills – libraries	Searching skills – world wide web	Scale – the world wide web is enormous compared to any physical library.
Assessing quality – written and other physical content	Assessing quality – world wide web	The world wide web has few quality assurance mechanisms. Books and other printed educational content have established means of judging quality. Anyone can launch a website but producing a textbook requires the agreement of publishers, peers and reviewers.
Listening – to peers and teachers during presentations and discussions	Listening is required only occasionally e.g. when the programme is based on audio or video conferencing or involves listening to a podcast	Listening is a key skill in most forms of traditional learning while it frequently plays only a minor role or none at all in e-learning.

<p>Reading – mainly printed material</p>	<p>Reading is a key skill in e-learning. Most information is presented in text displayed on a screen.</p>	<p>Since the majority of the material is text, reading is a key skill in e-learning compared to the roles that reading and listening play in traditional learning. Browsing is the normal way that the content of websites is read in order to locate relevant content.</p>
<p>Writing – mostly in the form of note-taking or completing exercises (e.g. essays)</p>	<p>Writing (keyboard skills) – for communication, note-taking and exercises</p>	<p>Writing (keyboard skills) is essential for e-learning communication (e.g. e-mail) as well as for note-taking and exercises. Writing is the main online communication method.</p>
<p>Creating content – often associated with arts and crafts</p>	<p>Creating content – growing rapidly and covering many new areas</p>	<p>Creation of content is powerfully enhanced by the availability of sophisticated equipment (e.g. digital cameras and sound recorders) and applications that formerly were only used by professionals.</p>
<p>Self-assessment</p>	<p>Self-assessment</p>	<p>This is a key skill in all forms of learning. In traditional learning there are many opportunities to compare your performance with your peers (e.g. observing them in class, sharing results in the coffee lounge, etc.). In e-learning their performance is often not available to you. You need to find new ways of assessing your own performance.</p>
<p>Collaborating with others face-to-face</p>	<p>Collaborating with others through communication software (e.g. e-mail)</p>	<p>The key difference is time. A face-to-face group will often agree regular meetings so that tasks are achieved quickly. Members of an online group will each have their own time scales and may well live in different time zones so that collaboration is often spread over a long period. Motivation is sometimes difficult to maintain.</p>
<p>Problem solving – individually or small groups</p>	<p>Problem solving – individually or with a group at a distance</p>	<p>The significant difference when working with others is that in e-learning they are at a distance and it is therefore more difficult to judge their views.</p>

Table 1.1 Comparing learning skills

Table 1.1 is not intended to cover all the sub-skills but merely to provide an initial basis for comparison.

The two major differences between traditional and e-learning skills are the context and degree of importance of the skill. e-Learners may be learning at a distance from both their peers and tutors so they need to be far more self-sustained than the traditional learner. Traditional learning provides informal opportunities such as a brief chat in the corridor with other learners to discover their views, whereas e-learning requires you to send an e-mail, a more formal activity. Learners have had years of practice in face-to-face communicating while most will be relatively inexperienced at being dependent on short written messages (i.e. e-mail or chat). Nevertheless, this is changing as a generation of learners who have grown up with mobile phones, computers and the internet are entering post-compulsory education.

In face-to-face communications you can see the facial expression of people, hear the tone of voice and listen to the words used. In e-learning you only have the written words to communicate through and this notoriously leads to misunderstandings. It is more difficult to convey precise meaning. Various ways have been developed to help convey emotions such as the use of emoticons, a code based on punctuation or other symbols such as:

- using ☺ to mean happy;
- using ☹ to mean sad;
- using capitals or upper case to mean that you are shouting.

However, only a minority of e-mail users include emoticons and they are inevitably basic compared to the non-verbal communication that people grow up employing. They may confuse if the person receiving the message does not understand their purpose.

Traditional learners have the benefit of a tutor's judgement in observing their group and realising that individuals are confused by the topic or need to be reminded about the test. An e-learning tutor has far less information on which to base judgement, so the e-learner needs to be more self-reliant than other learners. Time-management skills become more important because you need to be in control of your learning. You cannot rely on the tutor or peers informally reminding you of deadlines. In later chapters you will be given the opportunity to develop your skills.

e-Learning assumes you are a competent and confident user of computers and communication technology. In Chapter 3 you will be provided with help to improve or revise your technological skills.

Activity Assessment of skills

It is useful to start any learning process by assessing your starting point, so consider the lists of traditional and e-learning skills and judge your own competence in each one. In a later chapter you will consider your computer and communication technology skills.

Traditional skills	Competence			e-Learning skills	Competence		
	Poor	Acceptable	Excellent		Poor	Acceptable	Excellent
Time management				Time management			
Acceptance of responsibility				Acceptance of responsibility			
Planning				Planning			
Searching skills – libraries				Searching skills – world wide web			
Assessing quality – written and other physical content				Assessing quality – world wide web			
Listening				Listening			
Reading				Reading			
Writing				Writing			
Creating content				Creating content (e.g. photographs, video, sound and animation)			
Self-assessment				Self-assessment			
Collaborating with others face-to-face				Collaborating with others at a distance			
Problem solving				Problem solving			

Discussion

If your experience of e-learning is limited, you may find that you have marked yourself low against the various characteristics. However, many traditional learning skills are very useful in online settings. You just need to be able to transfer and adjust them to the new context. This may seem a difficult process at the moment but with the help of the content and activities within this book you will achieve this.

Appendix A provides another checklist to consider your e-learning skills. It is cross referenced to the various parts of this book to enable you identify sections that will help you develop particular skills.

● e-Learning theories

There are a number of learning theories that apply to e-learning. This section is not intended to make you an expert on them but rather to help you understand the assumptions and expectations that designers may have made about you.

Cognitive theory

The cognitive theory of learning is often the basis on which learning materials are developed. It covers how information gained through your senses (i.e. eyes and ears) is converted into knowledge and skills. Human memory has two information channels: visual and auditory. Information is initially held in working memory and needs to be integrated with other existing memories held in the long-term memory. Working memory has very limited capacity. To recall information from long-term memory it needs a relevant context.

Designers will aim to provide you with choices so that you can focus on those aspects that are most important for you to learn and avoid overloading your working memory. It is therefore important for you to select and concentrate on those aspects. Information needs to be integrated into long-term memory and this can be achieved through activities which are often provided. It is therefore important to take part in activities or exercises rather than simply seeing them as additional. They will help you to learn. The final step is to be able to retrieve information from long-term memory and that requires context. The context needs to be relevant to you so consider the new information in relation to your experience and make links. Some exercises ask you to select a context for an activity so choose one that is relevant to you.

Constructivism

Constructivist learning theory tends to emphasise learning by doing. It therefore stresses the need for learners to discover, explore and try out new ideas. Learners are expected to make their own judgments of what they are experiencing. In e-learning programmes you will often be asked to carry out tasks, to read and consider evidence and to explore resources. The new experiences will need to be related to your existing knowledge and understanding. The tutor's role is often to facilitate your learning through questions or discussion. It is important that you participate so that the conclusions you have reached through your personal or group activities can be confirmed. However, the overall focus is on learning through your own efforts. You need to be self-actuated.

Communities of practice

Historically communities are normally formed around a physical location so that the common factor that the members of the community share is a geographical place (e.g. everyone lives in the village or attends a particular college). There is a very different type of community in which the members have a common interest, profession or objective. This is called a community of practice.

Social networking, online communication, conferences and wikis are often related to the concept of a community of practice in that they bring groups of people together to allow them to form a group. A community of practice is more than a simple group of individuals. The members share common interests, experiences, aims and objectives. Participants in a community of practice will support each other to achieve the common goals. Communities of practice do not simply come into existence when people meet online; people need opportunities to work and collaborate together so that structures, methods, communication channels and commitment evolve.

e-Learning programmes will frequently expect student groups to become and behave as communities of practice. The expectation is that the group will be able to:

- solve problems;
- share information;
- discuss issues;
- pool knowledge and experience;
- work together.

It is important to be aware that your tutors may well expect you to contribute to your group in these ways. They will also often provide activities to help the group to form and develop as a community of practice. It is therefore important for you to realise that you need to participate.

● What makes a successful e-learner?

e-Learning is a new development so that good evidence of what makes for a successful e-learner is not readily available. However, some characteristics are:

- confidence as an independent successful learner, especially learning in non-formal settings (e.g. in your home, work or community);

- positive attitude to learning;
- self-motivated to succeed;
- effective communication skills;
- ability to collaborate and co-operate with other learners;
- competent and confident user of ICT.

(Nipper 1989; Clarke 1998; Palloff and Pratt 1999; Clarke 2002a)

Activity

Successful learner

Consider your own experience of learning and decide how successful a learner you are. You should consider all types of learning, especially your ability to learn independently (e.g. to teach yourself to use a video camera, to understand instructions and to plan a holiday), as well as more formal studies:

1. Are you confident that you can learn new ideas, concepts and skills in a variety of learning environments?
2. Do you enjoy learning new things and normally finish what you start?
3. Do you work well with other learners?

Write some brief notes

Discussion

If you have been a successful learner previously then it is likely that you will continue to be successful in online courses. This is not simply about success in formal education courses but in the wider sense of learning independently (e.g. teaching yourself skills and knowledge in any context).

Online courses are different from traditional forms of learning so if you have had little previous success in learning this is an opportunity to make a new start. If you have had problems in traditional courses with restrictive timetables, travelling arrangements or the pace of the course, then e-learning may help overcome them.

1. Are you confident that you can learn new ideas, concepts and skills?
e-Learning tends to ask learners to take more responsibility for their own learning than traditional approaches. If you feel that you need a lot of support, guidance and direction from tutors then you should check if the course is right for you or work towards developing the skills that you will need. Many colleges offer support to develop study skills.
2. Do you enjoy learning new things and normally finish what you start?
e-Learning uses many different methods and technologies so it favours learners who enjoy new challenges and ideas. Does taking on new challenges motivate you?

3. Do you work well with other learners?

Although e-learning tends to be discussed as if it is about individualised learning, many methods include group, collaborative and co-operative learning. These require people who can build relationships with other learners.

Appendix B contains a list of tips for the successful e-learner and you may want to consider it alongside this feedback.

● Benefits of e-learning

Your main benefits as an e-learner are that you have considerable freedom of:

- place;
- pace;
- time.

You are potentially free to study at any location that you want. So if you like to work at home you can combine studying with family responsibilities or avoid the frustrations of commuting. Many people are now able to learn as they travel via the use of portable equipment.

In traditional learning the tutor and the other learners often set the pace of studying. e-Learning gives you the choice of how fast or slow to learn. If you want to work through the night you can or if you like to fit short bursts of activity into your timetable for taking care of elderly parents or children, you are free to do so.

All traditional courses have a fixed timetable of classes and activities around which you must work. e-Learning provides you with a considerable degree of choice. You can study in the middle of the night or during the day, whatever is best for you.

Activity e-Learning

In choosing to be an e-learner you need to question your assumptions about the suitability of the approaches. Consider the questions below:

- What benefits are you seeking from the e-learning programme?
- What do you hope to achieve from becoming an e-learner?
- Are your objectives realistic?
- Could you achieve your objectives through a traditional course?

Write some brief notes about these questions.

Discussion

There are various motives for selecting an e-learning course rather than a traditional one. You may want to combine your studies with a job or family responsibilities and an e-learning course will give you the flexibility you need. You may have been attracted by these new approaches to studying. Regardless of your reasons you will still need to work just as hard as in a traditional course. However, you have more choice of when, where and at what pace to learn. This places a lot of responsibility on you which in a traditional course is provided by its structure and the tutor.

The structure of e-learning courses varies considerably so you need to ensure that the selected course will meet your expectations.

● Learning styles

Everyone has preferred ways of learning and these are sometimes referred to as learning styles. When you have to learn in a manner that is different from your preferred learning style you will often feel uncomfortable and perhaps express doubts about the suitability of the approach. However, you have probably had experience of a wide range of learning styles during your education and successfully coped with them but this does not mean that you prefer them or seek them out. Some you will probably avoid because your own experience has shown you that do not like them and struggle to learn with them.

There are a variety of ways of expressing learning styles but one which is appropriate to e-learning considers preferences in terms of the seeing, hearing and doing. If you are a learner who prefers visual learning (i.e. seeing) then you will like:

- learning materials which include plenty of pictures, graphics, video and animation;
- images that support text.

If you are a learner who prefers auditory learning (i.e. listening) then you will favour:

- discussing ideas with other students (e.g. mailgroups, bulletin boards, chatrooms and e-mail);
- group working (e.g. groupware and collaborative/co-operative working);
- sound effects;
- video clips.

If you are a learner who prefers kinaesthetic learning (i.e. doing) then you will opt for:

- activities (e.g. lots of action – making choices);
- making notes;
- taking part in group work.

Some of these preferences translate straightforwardly into the e-learning environment. e-Learning is generally strong in providing many opportunities to make choices, to interact with content with a large visual element and to work with others through communication technologies.

There are other ways of considering preferences (Kolb, 1984; Honey and Munford, 1986) than in terms of visual, auditory and kinaesthetic. You could consider the following preferences:

- reflective – you may like to have time to reflect on experiences, learning content and discussion;
- analytical – you may prefer to analyse new content, ideas, etc. systematically;
- holistic – you may like to know the overall picture and are uncomfortable having the subject built up slowly, which is often the approach taken in lectures or presentations. You will appreciate overviews, abstracts and summaries.

Preferences are not mutually exclusive. Most people have a mix of them. If you consider your own experience of learning you will be able to identify what you like and dislike about the learning approaches you have experienced. It is important for you to be aware of your own preferences and the nature of e-learning. Consider the nature of the e-learning course you are intending to take part in and decide if it supports your learning preferences.

● Information and communication technology

e-Learning is learning through and being supported by the use of information technology. It therefore assumes that you are able to exploit technology. Most education and training providers will offer a technical helpline so that if you are studying at home or at a distance you can gain assistance. However, helplines do assume you have sufficient understanding of the technology to follow their instructions.

You are free to study at different locations including learning centres

provided by colleges, companies, internet cafes and community sites. While they will often charge for the time spent online, they do provide assistance if you have technical problems, thus removing some of the stress. If you are studying using the college's own resources then many of the technical issues will be handled by them.

Computers are powerful aids to your learning and can help you by providing:

- ways to organise and store your notes, references and materials (e.g. folders, files and databases);
- tools to present your work (e.g. word-processing, presentation graphics, charts and graphs);
- tools to analyse your data (e.g. spreadsheets);
- tools to help you create content (e.g. blogs and wikis);
- equipment to capture evidence (e.g. digital cameras and scanners);
- access to the enormous library of information that the world wide web represents.

These aids are not confined to e-learning but are useful ways of assisting your studies in traditional, blended or e-learning courses. Many learners undertake traditional and e-learning modules at the same time.

● **Interaction**

When you speak to a tutor or another learner you expect them to respond to your words and in return you will react to them. The e-learning equivalent of this dialogue is called interactivity which is achieved, of course, through e-mail, chat, wikis and other forms of communication. Good learning materials and environments should respond to your actions in appropriate and helpful ways to engage you and hopefully assist you to learn.

Interactivity can be very simple. In some applications a helpful label will appear to help you understand an icon when you place your mouse pointer on top of that icon. The system is responding to your action.

It is useful to consider interaction as a dialogue between you and the learning system through what appears on the screen and the input devices (e.g. mouse and keyboard). This is called the interface. Figure 1.1 shows this model of interaction. Any learning system should offer you a considerable degree of support, opportunities for helpful dialogue and lots of choice. In a sense it is adapting to your needs in a way similar to that in which tutors will adjust their approach to meet your requirements. To take advantage of these possibilities you need to explore the interface. It is therefore good practice to

investigate the interface systematically when you first encounter the system. You will frequently be offered an introduction to the system or a guided tour of the facilities. If this is not automatically suggested to you then seek it out. It is often included in the help system, the introduction or on the home page.

Many learning systems offer a virtual learning centre with what appears to be traditional equipment such as desks, computers, flipcharts, coffee bars and books. Often the intention is that these resources will behave in similar ways to the actual objects and facilities:

- the coffee bar (or common room, refectory, etc.) provides the means to communicate with other learners through an electronic chat room or similar facility;
- desks may provide the links to the administration;
- books and floppy disks are like handouts and other support;
- computers will lead to computer applications such as e-mail.

Virtual environments vary considerably in appearance and structure so you need to explore them to ensure you can take advantage of the resources. This is the equivalent of physically walking around the college campus on your first day to discover where everything is located. It is a vital step to prepare you for the course.

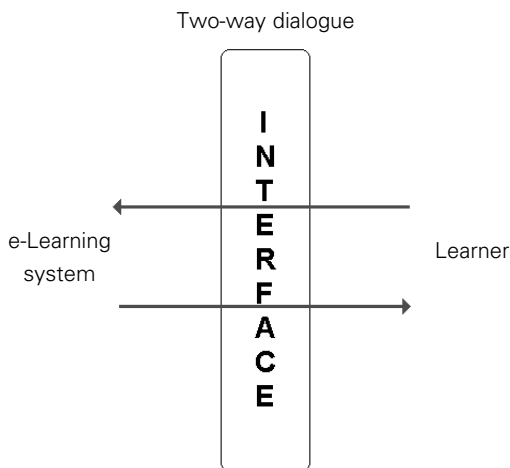


Figure 1.1 Simple communication between a learner and e-learning content

● Learning resources

Learning resources often play a significant role in e-learning. The materials may take a variety of forms and include:

- interactive materials that you access and interact with online (the materials can cover the whole subject or merely some aspects but are designed to enhance learning);
- stand-alone interactive materials such as multimedia CD-ROMs;
- traditional materials (e.g. workbooks, open learning texts and lecture notes) which are made available to you online, through the post or in the college library;
- content that you create (e.g. wikis, presentations or blogs) so that you have the opportunity to explore a topic from a different perspective;
- resources which are simply available on the world wide web (e.g. webpages, downloadable files, podcasts and online databases). (Chapter 10 provides an extensive list of resources on the world wide web that support e-learning skills development.)

Your e-learning course may have some or none of these forms of learning material depending on the subject and approach being taken. The key issue for you is that you need to be able to learn no matter how the course is designed. This requires that you are able to use and create interactive and other learning materials, analyse written content and locate and assess web-based content. These skills will be considered in later chapters.

Activity Learning materials

You will have come into contact with many types of learning materials (e.g. text books, videos and handouts). Interactive materials are an important part of some e-learning programmes and it is important that you have some experience of them. In many college, company and community learning centres you can gain access to interactive learning materials. The learning centre staff will be able to help you with the materials. Work your way through a package then record your first impressions and compare them to your experience of other forms of learning materials.

Discussion

Interactive learning packages should engage you and provide you with a motivating and interesting experience of the subject being studied.

You should have considerable freedom to explore the materials, to retrace your steps and to have another go at exercises. You should be able to stop and mark your place so that you can return and start where you finished. The presentation of content should be to a high standard.

Unfortunately not all interactive packages meet this standard. The cost of developing professional interactive materials is very high so that some packages are little more than an electronic book. You should ask yourself whether a paper book or other forms of learning material would have served the same or a more effective purpose.

● Collaborative and individual learning

Face-to-face and e-learning can involve both group and individual activities. It is also perfectly possible to have a course involving both e-learning and traditional methods. It is widely accepted that online groups are often more effective if they are initially formed by some type of face-to-face meetings. However, it is not always possible to bring everyone together if they are living across a country or on several continents. A significant benefit of online learning is that it allows people to participate who cannot physically attend the educational institute. It allows learners from many different cultures to learn together and benefit from each other's experiences. Online learners are individuals who can collaborate with their peers through communication technology. This use of technology to allow people to communicate is sometimes termed computer mediated communication (CMC).

● Blogs, wikis and social networking

For many users of the world wide web the experience has focused on reading, viewing or listening to content that other people have created. Learning is not limited to this passive role and is often best served by a more active and creative approach. A new generation of online applications has been evolving over the last ten years and education has begun to exploit them to integrate more creative approaches into online and e-learning programmes. They are often called web 2.0 or social networking and include blogs, wikis, podcasting and e-portfolios.

Blogs have been used by learners to create diaries reflecting on their experiences of learning. However, their being online makes them available

to the other members of the course to add their own comments and may thus become interactive. They are therefore a means of developing reflective skills. Many professions now require practitioners to be reflective, so the skill itself is valuable as well as being a route to enhanced learning.

Wikis are online applications that allow a group of people to share in the creation of a document. Each person is free to edit the content and make changes. It therefore offers a means of collaborative working in order to create a shared outcome. Employers value employees with the skills and experience of working with others to achieve a common purpose. In addition, collaborative learning will help you to improve your understanding of the topics being studied through the assistance and interaction with the other learners in your group.

Learning has always involved creativity and in all sectors of education and training the practical assignment to produce an agreed outcome has been shown to be very effective. e-Learning adds to this concept many tools, devices and applications to enhance the process. Podcasting is increasingly being used to provide learners with learning content. In addition, the creation of a podcast provides a focus for studying a topic, collaborating with others and also producing learning materials for other learners.

You will need to consider your own motivation and willingness to reflect, collaborate and create using these approaches. They provide interesting and exciting possibilities but will probably challenge many learners.

● **Mobile learning (m-learning)**

m-Learning is a natural outcome of the growth in small portable devices such as PDAs, mobile phones, MP3 players and sound recorders. The trend is to combine mobile phone technology with hand-held computer equipment to gain the functionality of both. You can now receive your e-mails almost anywhere through devices such as Blackberries and it is normal for phones to be combined with a camera.

Courses have been integrating these technologies into their programmes to gain additional benefits such as:

- providing administrative text messages (e.g. assignments are due on Friday);
- taking part in collaborative exercises while you are on the move;
- taking part in quizzes;
- checking your e-mail;
- providing e-learning materials to study as you travel;

- writing or recording notes while undertaking an assignment;
- using mobile office applications such as diaries, word processors and spreadsheets;
- offering recordings of lectures that you can listen to using your music player;
- listening to instructions for a particular task;
- using cameras to capture images during field trips – some phones now offer GPS so that the precise location of a picture can be mapped.

m-Learning increases the flexibility of learning so that you can study as you travel or in the short intervals between other activities (e.g. waiting for an appointment). It provides you with the means of fitting learning into your busy life. It is ideal if you are a commuter.

● **Formal and informal learning**

e-Learning courses involve both formal and informal learning. The world wide web is an enormous learning resource, available to any learner. However, in order to take advantage of it requires the skills of searching, identifying and evaluating the content. This is sometimes called information literacy. This indicates the balance of e-learning in that the potential is huge but the ability to take advantage of it requires significant skills. Informal learning is frequently incorporated into conventional and more formal e-learning courses.

Many organisations are developing formal e-learning courses but experience is relatively limited so that ideas and approaches are essentially being explored. However, in order to benefit from the flexibility of online approaches means that formal learning needs to include the freedom to learn when, where and at what pace the learner wants to work. More formal courses have:

- a start and finish date (i.e. complete freedom is reduced but is still substantial);
- assessment standards (e.g. a traditional examination on completion);
- intermediate deadlines (e.g. reports required by set dates).

Learners are more likely to drop out when too much responsibility is thrust on them too quickly. A degree of structure is often helpful and devices such as intermediate reports can help identify learners who need assistance.

Some courses provide trial assignments to allow learners to practise writing assignments. It is often difficult for tutors to judge when to offer help in a completely open ended course.

● **Assessment**

e-Assessment has been introduced across all sectors of education and training and is rapidly being extended. It can take a variety of forms such as on-screen tests, e-portfolios and simulation. Probably the largest use is made of on-screen tests using multi-choice questions. This enables assessment to be made available on demand from the learners when they feel ready to take the test. While this type of assessment is limited by the nature of multi-choice questions, many learners are motivated by being able to take the test when they want to and having results immediately available.

Technology allows tasks, events and processes to be simulated so that learners can be assessed on their competence before they are allowed to work in the real environment. This is very helpful in dangerous situations. Simulations have been used in many situations such as medicine, driving, chemical processing and engineering.

The use of e-portfolios is growing and not simply in replacing the use of paper-based portfolios but in many new areas. e-Portfolios allow the storage and sharing of multimedia evidence. They organise evidence of your accomplishments. This can be simply to show that you can pass the course assessment or for long-term use as a form of life-long curriculum vitae. In some cases, programmes will employ specifically designed e-portfolio systems that limit you to the objectives of the course. There are many commercial and institutionally designed e-portfolio products but all of them require you to select evidence for inclusion which demonstrates your competency, achievements and ability. The personal advantage of e-portfolio is that you gain an easily transportable source of evidence of your achievements that you can use for other purposes. In Chapter 7 we will discuss e-assessment and particularly the use of e-portfolios.

● **Support**

All forms of distance learning, including e-learning, suffer from higher levels of drop-out than conventional face-to-face courses. The key to successful distance learning is the degree of support that is available to you. Support is not limited to the formal support of your tutors but can include:

- other learners;
- study circles/groups;
- family;
- friends;
- learning centre staff;
- workplace instructors;
- mentors;
- tutors.

A supportive family can make the difference between success and failure. When you are choosing to take part in an e-learning course you should consider what support is available to you both formally (e.g. tutors, mentors and other learners) and informally (e.g. friends and family). Is the course structured to encourage mutual support between the learners? Is a mentor provided and is a personal tutor appointed for you? These are important questions to ask before starting the course.

Activity Support

What sort of support do you need when you are studying? Do you want to be in control of your own learning or do you need someone to motivate, encourage and remind you directly of the course deadlines. Write some brief notes and reflect on the nature of e-learning, especially if you are learning at a distance.

Discussion

Personally I like to feel in control of my own learning so I am content to plan my own studies and to take responsibility for meeting deadlines. However, I have always enjoyed the support of my family who have encouraged and motivated me to study. In terms of more formal support I have always found it useful to know that there is someone to telephone or e-mail to ask for advice. In several courses I have developed contacts with other learners so that we can swap ideas and answer each other's questions.

● Tutor's role

There are significant differences between a traditional and an e-learning tutor. Table 1.2 compares the traditional and e-learning roles. e-Learning is often presented as learner-centred while traditional education and training is

Activity	Traditional	e-Learning
Lecture	The tutor is the presenter of information and decides what to communicate, the sequence of information and the speed of delivery.	Information is often presented as learning material so the tutor's role is to facilitate and assist the learner to understand. The learner chooses the pace, content and sequence of learning. Tutors will react to learners' requests although some will offer proactive help based on their experience.
Individual assignments	The norm in many forms of traditional teaching is for the tutor to set individual assignments. They are an important part of the assessment process.	Individual assignments are employed for similar purposes as in traditional methods. They are also used to assist learners to self-assess and are often designed centrally rather than by the individual tutor.
Group assignments	These are relatively rare in many forms of traditional learning. Group assignments are frequently used and devised by tutors within courses to explore ideas rather than as assessments. Tutors will facilitate the groups.	e-Learning also uses group assignments which serve a similar purpose to traditional courses. One of the main differences is that assignments are more often used for assessment in e-learning and are sometimes designed centrally rather than by the tutor. Co-operative and collaborative learning approaches are employed in e-learning.
Feedback	Feedback uses a mixture of methods but verbal face-to-face is frequently the dominant one.	Feedback again employs a range of methods but written feedback is often important where learning is taking place at a distance from the tutor.

Assessment	The tutor is often also the examiner, sometimes devising the assessment and marking the answers.	e-Learning often contains many tests or assessments for the student to undertake and which the software marks. These are intended to help learners to self-assess.
Support	<p>Formal support is often provided face-to-face by a variety of people including tutors, mentors and other support staff.</p> <p>Peers, friends and family sometimes offer informal support.</p>	<p>Support is probably more important in that the risk of isolation is greater if you are studying at a distance. The tutor and other formal support workers may be less visible due to the distance and their role is more facilitation than direct delivery of learning.</p> <p>Peer support is important in e-learning and often the course will be structured to encourage it.</p>
Speed of response to individual and group questions	<p>Normally this is determined by when the question is raised. In a lecture the answer can be given immediately but, in a large group, individuals may be discouraged from asking questions.</p> <p>Individual issues may depend on a logistical arrangement to fix an appointment. There will often be a delay in meeting.</p>	<p>e-Mail culture tends to assume a quick response and even a short delay may be seen negatively by the sender.</p> <p>Many courses have a standard for responding to messages (e.g. 48 hours).</p> <p>Replies to group queries allow everyone to see the answer and this provides a permanent record.</p>

Table 1.2 Comparison of tutor roles

seen as tutor-centred. The e-learner is given control and allowed to make the significant choices of what, when and how to study. In traditional learning the tutor is essentially in command of the process. These are both stereotypes and the design of courses and approaches varies considerably. Just by presenting a course online will not in itself ensure it is learner-centred. Many traditional courses do offer a considerable degree of choice to the learner. The comparison does assume the stereotype to aid the discussion but it is important to realise that it depends on the design of the programme. You should ask about the design of your programme and the underpinning intentions before starting it to ensure it meets your needs.

In most traditional learning environments (e.g. colleges and training centres) the tutor is probably the most important component in the students' learning experience. They provide the critical elements of:

- support – providing help when things go wrong or to prevent errors;
- direction – explaining what the key issues are in understanding the subject;
- explanation – providing feedback on progression and advice on what is good practice;
- content – presenting content in a way that you can understand it;
- responsibility – accepting some of the responsibility for your learning (e.g. reminding you about deadlines);
- structure – designing and managing the structure of the course.

The tutors' role in e-learning courses is different. They are facilitators and moderators of your learning rather than having the more directive managerial approach of conventional learning situations. This places more responsibility for your learning on yourself but this does not mean that your tutor is not a critical resource. Tutors can provide you with a great deal of help. The nature of online learning is such that it is difficult for your tutors to identify immediately if you have a problem. They will be monitoring your behaviour by considering how often you send messages to the course conference as well as their content. However, e-mails tend to be short and focused so that diagnosing problems is more difficult than in face-to-face situations. If you are unsure or puzzled you need to ask your tutor for help directly.

The online tutor provides the key elements of:

- welcome/confidence – helping you to feel comfortable in the online environment (e.g. by encouraging you to take part in online conferences);

- support – answering questions, making suggestions and moderating discussion so that you do not exceed the agreed standards;
- feedback – (e.g. annotating assignments, posting messages, etc.);
- facilitation – encouraging discussion and participation so that a climate of mutual support is created;
- monitoring – considering the activities of each learner so that problems are identified as soon as possible.

There are some significant differences between the tutor's role in traditional and e-learning courses. One way of describing the difference is that traditional courses are tutor-centred while e-learning is more learner-centred. This is relative since a great deal depends on how the online course is designed.

● **How to assess an e-learning course/programme**

A key aspect of any form of learning is to choose the right course for yourself. This section aims to help you assess possible e-learning courses or programmes by providing you with a checklist. The list is in no particular order since e-learning courses can take many different forms and place the emphasis in variety of ways. Some of the items will require you to study later parts of this book so at the moment they will not be clear but it is useful to attempt to use the checklist to assess courses now and then to update it as you work through the book.

You should also check on other aspects of the course (e.g. qualifications, the standing of the college or provider and the value for money). To assess the e-learning aspects you should systematically ask about these topics. Some of the information should be available from the college or provider's website and their publications. However, you may need to ask additional questions.

The decision about the course is yours to make and e-learning is a mix of different features and services, so many combinations are likely to be effective. However, you may well have expectations that are best confirmed at the start. An overarching factor is that e-learning is normally associated with a student-centred approach to provide you with more choice of when, where and how you study. This comes with a transfer of responsibility for your learning from the tutor to you. e-Learning requires that you manage your own time and accept responsibility for your own learning. You may want to consider whether you want to take on these new challenges and assess your own attitudes and skills in relation to these new challenges.

1. Content (how is the content provided?):
 - specifically designed material for the course;
 - interactive content that meets a published standard;
 - traditional materials (e.g. books and other printed content) which is integrated with high quality support and communication technology.
2. Methods (what teaching and learning methods are employed?):
 - e-learning is blended/integrated with traditional methods;
 - distance learning;
 - any face-to-face contact with peers and tutors;
 - degree of freedom (i.e. choice of place, pace and time).
3. Feedback (how is feedback provided?):
 - annotation of assignments;
 - comments on blogs;
 - annotations on e-portfolio content;
 - personal tutor/mentor;
 - learners conference and/or chat room;
 - is there a standard for replying to your messages (e.g. 24 hours)?
4. Learning environment (what online environments are provided?):
 - Virtual Learning Environment (see later chapters for explanation of these systems);
 - Managed Learning Environment (see later chapters for explanation of these systems);
 - Intranet/Extranet;
 - website;
 - e-portfolios;
 - blogs and wikis.
5. Support (what support is provided?):
 - individual tutor/mentor;
 - links/communication with other learners.
6. Assessment (how is the course assessed?):
 - online assessment;
 - conventional assessment (e.g. written examination);
 - Continuous assessment;
 - peer assessment;
 - e-portfolios – are portfolios employed?
7. Flexibility (how much choice does the course provide?):
 - freedom to choose place, pace and time;
 - fixed timetable.
8. Standards – does the organisation provide a statement of its e-learning standards (e.g. minimum requirements for content)?

If you are considering a course then apply the checklist and it should help you make a more systematic assessment. You should also consider your own circumstances and preferences, such as:

- Do you want to learn via a computer screen?
- Are you content with making relationships at a distance?
- Are you planning to study at work? What support and time will your employer/manager provide?

Summary

1. What is e-learning?

e-Learning is a general term covering many different learning approaches that have in common the use of information and communication technologies.

2. Comparison of traditional and e-learning skills

There are many things in common between the learning skills required for traditional and for e-learning courses but the main differences are:

- e-Learners are learning at a distance from both their peers and tutors.
- e-Learning is more formal with less opportunity for informal communication (e.g. chat in the corridor).
- e-Learners often have relatively little experience of e-mail and other communication technologies compared to face-to-face. Face-to-face is an immediate communication method while e-learning often involves a delay.
- e-Learning depends on written communication which makes it difficult to convey emotion.
- e-Learners need to be more independent and self-reliant than traditional learners.

3. What makes a successful e-learner?

The characteristics of a successful e-learner are self-confidence, motivation, a positive attitude and being a good communicator and collaborator and a competent user of ICT.

4. Benefits of e-learning

e-Learning gives you potentially more freedom to choose the place, pace and time of your learning. However, it does place more responsibility for your learning on you and the design of e-learning courses varies, so the degree of freedom will change from course to course.

5. Learning styles

All learners have preferences about the way they like to learn. These preferences are called learning styles. There are several ways of describing learning styles but one which is appropriate to e-learning is in terms of the seeing, hearing and doing. e-Learning provides many opportunities to make choices, interact with content with a large visual element and to work with others through communication technologies.

6. Information and communication technology

e-Learning is about learning through and being supported by the use of information technology. Learners need to be competent and confident users of ICT.

7. Interaction

Interaction can be considered as a dialogue between yourself and the learning system through what appears on the screen and the input devices (e.g. the mouse and the keyboard). Interactive learning materials should engage and motivate you through their ability to adapt to your individual needs.

8. Learning resources

In many forms of e-learning, learning materials play a significant role. Materials can take many different forms including online and stand-alone interactive materials, workbooks, open learning texts, lecture notes, webpages, downloadable files and online databases.

9. Collaborative and individual learning

e-Learning allows participation in learning of people who would normally be unable to take part. It provides opportunities

to collaborate with learners from many different cultures and backgrounds.

10. Blogs, wikis and social networking

e-Learning provides many tools, devices and applications to aid the creativity of learners. Blogs assist the development of the skills of reflection, wikis aid collaborative working and podcasts allows learners to be creative. Creativity is a key element in all forms of education and training.

11. Mobile learning (m-learning)

m-Learning is a natural outcome of the growth in small portable devices such as PDAs, mobile phones, MP3 players and sound recorders. Courses have been integrating these technologies into their programmes to gain the additional benefits of being able to study as you travel or in the short intervals between other activities.

12. Formal and informal learning

The design of e-learning courses varies considerably, so the degree of freedom offered to learners will vary. The flexibility of the programme will depend on the objectives of the course and different courses will have a very different balance of methods and content.

13. Assessment

e-Assessment takes many forms (e.g. on-screen multiple-choice questions, simulation and e-portfolios). They all offer the potential to enable assessment to be provided on demand. e-Portfolios can be narrowly focused on a specific course or for life-long use.

14. Support

Successful e-learners need to be formally and informally supported by tutors, peers, other staff, friends and family

15. Tutors' role

e-Learning should be more learner-centred than traditional education and training which is often described as tutor-centred.

Tutors act more as facilitators and supporters of learners rather than controllers or directors. The responsibility for your learning lies with yourself.

16. How to assess an e-learning course/programme

You should systematically consider what you want from an e-learning course and, using the checklist, assess whether it is going to meet your needs.

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