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E-learning

WHAT IS E-LEARNING?

E-learning is defined by Pollard and Hillage (2001) as 'the delivery and administration of learning opportunities and support via computer, networked and web-based technology to help individual performance and development'. E-learning enhances learning by extending and supplementing face-to-face learning rather than replacing it.

The term 'e-learning' first appeared in the US in the mid-1990s but became prominent in the late 1990s. Like many HR practices, it was based on earlier developments such as computer-based training, supported online training, open or distance learning and informal e-learning derived from knowledge management approaches. The main difference is that e-learning is essentially web-based, although it can include the use of distributed technology products (mainly CD-ROMs), which do not require the user's computer to be networked.

E-learning is not so much about technology as about learning based on technology. However, it is the use of the intranet that has offered most scope for learning. In its fully developed form, e-learning is a more comprehensive approach to learning than the earlier developments, especially when blended with other learning methods.

The different types of e-learning are:

- self-paced e-learning when the learner is using technology but is not connected to instructors or other learners at the same time;
- live e-learning in which by the use of technology, the instructor and the learner are together at the same time but in different locations; and
- collaborative e-learning, which supports learning through the exchange and sharing of information and knowledge amongst learners by means of discussion forums, communities of practice, bulletin boards and chat rooms.

AIM OF E-LEARNING

In the words of Pollard and Hillage (2001) the objective is to provide for learning that is 'just in time, just enough and just for you'. It enables learning to take place when it is most needed ('just in time' as distinct from 'just in case') and when it is most convenient. Learning can be provided in short segments or bites that focus on specific learning objectives. It is 'learner-centric' in that it can be customized to suit an individual's learning needs – learners can choose different learning objects within an overall package.

THE TECHNOLOGY OF E-LEARNING

E-learning can offer up-to-date information to learners who are widely distributed geographically. Collaboration and the sharing of information between learners are possible, but learners tend to work much of the time in isolation.

The basic principle of e-learning is 'connectivity' – the process by which computers are networked, share information and connect people to people. This is provided for by what is often called 'the e-learning landscape or architecture', which refers to the hardware, software and connectivity components required to facilitate learning. In designing the system, consideration has to be given to 'functionality' – what each part is expected to do.

The main components of the e-learning 'landscape' are:

- *The learning management system (LMS)* – this provides users with access to various learning processes and enables self-paced e-learning to take place. It can also help with administration, including curriculum management, and course publishing.
- *The learning content management system (LCMS)* – this provides an authoring system for course or programme preparation, a collection of learning objects or

modules (sometimes called a repository), and a means of sending a completed course to a delivery system (sometimes called a delivery interface).
- *Learning portals* – these are access points to learning information and services that enable learners to locate content.

THE E-LEARNING PROCESS

The e-learning process comprises defining the system, encouraging access, advising and assisting individual learners, and encouraging and facilitating the creation of learning communities. E-learning focuses on the learner. It provides a means of satisfying individual learning needs. But individual learning may be supplemented by participation in learning groups or communities of interest in which members both gain and share knowledge.

The emphasis is on self-paced learning – learners control the rate at which they learn, although they may be given targets for completion and guidance from tutors on how they should learn. However, while self-directed learning is encouraged and provided for, the impact of e-learning is strongly influenced by how well support is provided to learners. It is the effectiveness of this support rather than the sophistication of the technology that counts. The quality of the content is important but it will be enhanced by support from tutors or 'e-moderators'. The latter as described by Salmon (2001) preside over the activities of a learning group in 'knowledge exchange forums', arranging contributions and information sharing and providing guidance and comments as appropriate.

E-learning programme content

E-learning programmes may cover common business applications and processes, induction programmes and, frequently, IT skills development. They are not so effective for developing soft skills such as team building, communication or presentation that rely on interpersonal contact. But programmes can still present basic principles that can prepare people for practical face-to-face sessions, provide reinforcement through post-event reading, help with self-assessment and lead to chatroom support.

Programmes may consist of generic content purchased from suppliers, but most organizations prefer customized web-based modules developed either in-house or outsourced to software firms that produce material to a specified design. The content should be constructed in accordance with the following pedagogic principles:

- learners must be stimulated by the learning process;
- the programme and content should be seen to be intrinsically relevant, the method of presentation should be interesting, use should be made of graphics, animations, audio, interactive simulations, scenarios, case studies, projects, question and answer sessions and problem-solving activities where appropriate – the programme should not simply involve 'page turning';
- learners must be encouraged to respond to stimuli and should be engaged in the learning process;
- learners should understand their learning goals, preferably working them out for themselves but with help where necessary;
- the programme should be constructed in incremental steps and presented in 'bite-sized chunks' or modules, each with clear objectives and outcomes;
- learners should be able to plan their learning (self-paced learning);
- learners must be able to measure their own progress but should be given feedback as well;
- learners should be encouraged to reflect on what they are learning by reference to their own experience.

The content can be prepared with the help of authoring tools such as Macromedia (Authorware and Flash).

Delivery of e-learning

E-learning is delivered through websites and the intranet; CD-ROMs are also used extensively. Provision can be made for online coaching and discussion forums. The content can be delivered through PowerPoint, video and audio clips, drag and drop questions, PDF files, links to websites, and web-enabled forums and learning communities.

Blended e-learning

In a sense blended e-learning is balanced learning in that a balance needs to be struck between electronic learning, face-to-face learning and informal group learning through teams and communities of interest. An example of a blended programme is shown in Figure 39.1

THE BUSINESS CASE FOR E-LEARNING

E-learning can enable flexibility of access and interrogation of high volumes of diverse learning resources in different locations. It can speed up the learning process

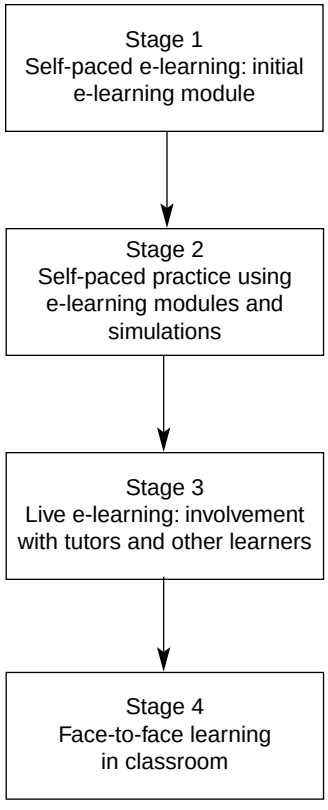

Figure 39.1 A blended learning programme

by as much as 50 per cent and focus on critical learning needs in the organization. The cost of training can be halved by decreasing the number of instructor hours. As stated by van Dam (2004):

> Self-paced e-learning can be taken *any time* and is therefore a just-in-time approach. E-learning can be taken *at any place* – in the office, at home or other locations, which eliminates the travel needs and costs. Skills acquisition and knowledge development will take place at *any pace* and *any path*, as the learning experience is solely driven by the participant, and therefore very personalized. *Anyone* in the organization can engage in e-learning and participate and share experience and knowledge in e-learning collaboration sessions.

DEVELOPING E-LEARNING PROCESSES

The main steps required to develop e-learning processes are described below.

Initial analysis

1. Define or re-define the human resource development strategy within the context of the organization's business strategy, external environment, culture and technologies.
2. Identify organizational learning needs – what should be invested in people in order to develop the intellectual capital of the organization, extend its stock of knowledge and skills and thus increase its organizational capability.
3. In the light of the above, assess the strengths and weaknesses of the present arrangements for developing people.

Scope for e-learning

4. Identify the overall scope for developing e-learning systems. The need to enhance present arrangements with a blended approach that uses complementary and mutually supportive methods of delivering learning also needs to be assessed.
5. Identify any areas in which e-learning might be particularly appropriate because there are well-established learning needs that can be met by electronic as well as more traditional means. Establish what specific opportunities technology offers to enhance knowledge. Establish the extent to which employees will have access to computers.

Development programmes

6. For each aspect of learning in which scope for e-learning has been established, produce a specification defining:

   – the learning need;
   – how e-learning will meet that need;
   – the learning system that should be used;
   – broadly, the content of the learning to be delivered;
   – how e-learning will blend with other forms of training;
   – the extent to which the programme is to cater for individual or group learning; and
   – who will be responsible within the organization for developing and delivering e-learning.

7. Decide on the extent to which learning systems, including the content of e-learning programmes, should be developed in-house, or purchased from outside suppliers. The factors to be taken into consideration will be:

   – the availability of resources within the organization to develop content;
   – the degree to which the material needs to be tailor-made to fit the organization;
   – the likelihood of suitable material being available elsewhere; and
   – the comparative costs of each option.

8. If it is decided that external suppliers should be used, identify possible organizations (on the basis of recommendations, as far as possible). The criteria for choice should be:

   – understanding of the requirements;
   – the learning methods employed (the pedagogic principles and theoretical perspectives from which the methods are derived);
   – the outcomes associated with the methods and how they will be measured;
   – suitability of learning material (fit with requirements); and
   – cost.

9. Select and train tutors and e-moderators.
10. Ensure that facilities for e-learning (computers, learning resource centres) are available. Take into account the possible need to provide guidance to users of learning resource centres on the use of the equipment.

Implementation

11. Prepare briefing material.
12. Ensure that everyone is aware of the facilities for e-learning, the part they and their managers will play, and the support they will receive from tutors and moderators.
13. Ensure e-learning arrangements are linked to other HR initiatives, eg performance management, career planning and knowledge management.
14. Launch e-learning, possibly starting with a pilot scheme in a department or a specific area of learning, eg IT.

Evaluation

15. Monitor and evaluate the performance and impact of e-learning.

Examples

B&Q

All the content of the B&Q e-learning system was produced as customized learning modules focusing on the needs of store-based employees. For example, the 'showroom' module, which deals with selling kitchens and bathrooms, uses both audio and visual components with options for different customer types. All modules are delivered in bite-sized chunks and provide learners with information on their progress.

Black & Decker

The blended programme for sales representatives consists of 16 self-paced e-learning courses, on-the-job training, classroom training and mentoring.

Prudential Financial

New starters take part in the Life Centre new starters' programme for seven weeks. Sixty per cent of the programme time is self-paced e-learning using simulations extensively, and 40 per cent is instructor-led classroom learning.

Unilever

Unilever operates a leadership development blended programme that balances online work with classroom sessions and coaching. A web-enabled community tool is used, which begins with a virtual, experiential module in order to develop the thinking and dialogue prior to the face-to-face programme. It continues to support virtual teamwork and encourages participants to engage in learning beyond the programme itself. Assignments and projects are used throughout the programme. These include individual projects focused on personal development and business improvement, and a team business proposal project.