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What is eLearning?

Introduction

eLearning is the use of electronic methods to impart technical or non-technical training. To this extent eLearning is not an IT industry term but it does involve the use of IT. The difference between training and eLearning, as an analyst with the Gartner Group puts it, is that one is “just-in-case” whereas the other is “just-in-time.”

eLearning has become a buzzword in recent times due to the number of companies that offer training from their Web sites (called Web Based Training). Another context where eLearning is often used today is in relation to Knowledge Management (KM). The Gartner Group, for example, believes that the merger of eLearning and Knowledge Management is inevitable. So while they launched Gartner Learning a few years ago, they are now discussing ways of merging eLearning with KM.

KM, by the way, is the storage of all those valuable bits of know-how that are not yet documented - from how to talk to a certain type of client to how to dress for a particularly difficult meeting. KM could also include storing the know-how that a franchisee has that does not get documented by the large corporation. Or it could be recording the salesperson’s experiences of how a new product is received by the market, the oohs and ahhs that are not easy to document in the product feedback form.

eLearning is in one of the following forms:

- Computer Based Training (CBT)
- Web Based Training (WBT)

Before I discuss each of these in detail below, let me address the terms Learner Management System (LMS) and Electronic Performance Support System (EPSS) which you may confuse with eLearning. An LMS is a support system for eLearning that assists in data tracking, recording keeping, and even content delivery. Therefore an LMS is not per se a form of eLearning. Similarly an EPSS is designed to provide online support to improve performance. Therefore while an EPSS may provide help or information related to the job at hand, it would not provide learning on how to do that job. To sum up, let me say that you should continue to look at CBT and WBT as the only two forms of eLearning.

CBT

Introduction

CBT or Computer Based Training is the term used to refer to any form of training that can be delivered via a computer to one individual. Typical CBT is packaged on one of the following media:

- CD-ROM
- Floppy
- IVD/DVD
- Any other storage device that can run on a computer

A term similar to CBT is TBT which stands for Technology Based Training. This is not the same as CBT as it used to be used as a collective term for the above mentioned packaging types as well as for video courses. But with the use of the Web, very little video is sold in packaged form making CBT the generally accepted term for this form of training.

Do also note that CBT can be either custom built to suit client requirements, or it can be available prepackaged and off-the-shelf. But larger value CBT orders obviously come from corporate clients who need custom solutions.

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CBT has been around for at least 20 years although some companies lay claim to have been providing computer based training in an office environment for longer than that.

Key elements of CBT are:

- User installed and user driven learning
- Packaging on media such as CD-ROM/floppy/IVD/DVD/Video
- Installation on common platforms
- No instructor/expert supervision required
- Individual chunks of learning available which could range from one to several hours in duration
- Content in the form of Course/Modules/Units/Topics/Lessons/Frames similar to books
- Multiple media should be used from text, graphics, audio, video, animation, simulations
- Interactivity is in the form of questions and answers, quizzes, simulations requiring learner inputs and so on
- Features such as navigation, book-marking, online help should be available
- Learner tracking possible through an administration module

Benefits

The key benefits of CBT are as follows:

- Anytime anywhere training not dependent on schedules and specific locations
- Learning at the learner's convenience and pace
- Pre packaged modules ensure consistent training across multiple learners and sessions
- Lesser dependence on instructors and instructor availability
- Highly cost effective as the same package can be used across multiple learners at the same or fractionally higher costs
- Online testing/quizzes
- Common content 'look and feel'
- Easy navigation and online help
- Personalized learning which tracks scores and suggests areas of improvement
- Enables simulated learning where "hands-on" with the actual software or environment may be expensive or dangerous for multiple learners (such as student pilots)
- Enables a company to provide geographically diverse customers easy access to its services
- Enables a company to give customers refresher or follow up training even after they have left the classroom

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Disadvantages

CBT's disadvantages are as follows:

- Highly individualized training can mean inconsistent results
- Lack of detailed and generally acceptable standards on what CBT should be (the AICC or Aviation Industry CBT Committee standards are de facto but not comprehensive enough)
- High rate of obsolescence for technical training especially for CBTs on software where versions can change rapidly
- Relies on traditional means of sales and distribution making the cost of distribution very high
- High lead time to develop and market
- High costs and effort required to update (CDs already in the market)
- Prone to packaging errors related to manufacturing

Level of Interactivity

CBTs can be highly interactive depending on their design. While the use of multimedia helps to some extent, interactivity is dependent on the quality of check-your-understanding questions, end-of-topic/module quizzes, course level tests, and assignments that are built in. It is generally accepted that the more interactive the CBT the more effective it will be in delivering training. This is why ineffective CBTs are also known as “page turners.”

WBT/Online Learning

Introduction:

WBT or Web Based Training is any form of online training delivered via the Web to individuals or groups. Typical WBT is delivered by training companies that develop their own Web learning content and tools, or by distance learning entities such as Online/Virtual Universities which may be extensions of training companies or actual universities.

Key elements of WBT/Online Learning are:

- Online registration
- Online payment processing and clocking of learning hours/sessions
- Online content delivery
- Online testing/quizzes
- Component based learning where typically smaller chunks of learning are used (a chunk could be anywhere between 10 to 30 minutes long given the connectivity constraints of the Web and the attention span of the Net user)
- Common ‘look and feel’ across content
- Easy site navigation
- Time/session independent training
- Personalized learning which tracks scores and suggests further training
- Additional online services to aid learning such as peer discussions/chats, e-mail, and q&a with experts/instructors

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Benefits

The key benefits of WBT are as follows:

- Anytime, anywhere learning where learners do not have to be present in the classroom
- The benefits of being in class without actually being there namely contact with faculty/experts, contact with peers, discussion groups, video of experts giving ideal solution
- The benefits of the World Wide Web namely access to related information from other people & sites, collaboration with multiple online learners
- Reduced development and distribution costs
- More training tools and materials available due to lesser dependence on specific platforms
- Lesser time to develop and market
- Updation time, effort, and costs are drastically reduced

Disadvantages

The key disadvantages of WBT are as follows:

- The dropout rate for WBT can be high as it is learner driven and progress is difficult to gauge
- Relies heavily on infrastructure such as connectivity and bandwidth which can be issues, especially in the Indian context
- WBT can miss out on key learning activities such as live interaction with peers and classroom discussions
- WBT can become monotonous as there are restrictions on the amount of multimedia elements, animation etc that can be provided over the Web
- Like CBT, WBT can be highly inconsistent and may lead to very different results
- Again like CBT, WBT suffers from a lack of globally accepted standards for development and technology, and look and feel

Level of Interactivity

WBT can be structured to be highly interactive. While the content may be simplified for delivery over the Web, the “learning experience” is enriched by adding case studies, research, and similar additional content outside of the actual WBT module. A popular structuring technique adopted by WBT companies such as NETg (www.netg.com) is by the use of learning objects which are individual chunks of learning, each meeting a specific objective and each containing a “pre-test” and “post-test” to ensure the objective is met. WBT can also be backed by interactivity with peers/instructors/mentors via e-mail, chats, and discussion groups to enrich the learning experience. This is a model followed by many online learning sites.

Conclusion

eLearning manifests itself through popular forms such as CBT and WBT, and there are other (less popular) forms such as video based training or live video (by satellite). Also the market for corporate eLearning is increasing (83% CAGR until 2003 by IDC’s reckoning) which puts it at \$4 billion in 2001. However there is a lack of standardization in the eLearning industry today, an issue which is driving initiatives being undertaken particularly in the US. But because of its inherent strengths and because it ties in with organizational training needs, eLearning is here to stay.