eLearning and the Revolution in the Educational Sector

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eLearning is any learning that uses ICT
- Computer aided instruction, use of ICT, Internet.
- Making full use of the wide range of pedagogic opportunities provided by ICT.
- A very wide term encompassing many different implementations.
Categories of eLearning

- **Courses**
  - VLEs (Educational Virtual Learning Environments) or (LMS) Learning Management Systems) like WebCT, Blackboard and Moodle.

- **Informal learning**
  - Google, Blogs, Wikis, On-line Communities.

- **Blended learning**
  - Blended learning: classroom (or face-to-face) and online learning.

- **Knowledge management**
  - KM involves the process of identifying, indexing, and making available (in various formats) knowledge generated within the daily activities of an organisation.

- **Delivery type falls into two broad categories:**
  - Synchronous delivery (real-time)- streaming, conferencing, and archived presentations
  - Asynchronous delivery (delayed time) through the use of LMSs, collaborative spaces, and discussion boards.
In Higher Education

- It encompasses blended learning as well as distance learning
  - ICT is used as a communications and delivery tool between individuals and groups:
    - to support students.
    - to improve the management of learning.
- Provides accessibility irrespective of time, space, lecturer availability.
- Cross-sector multi-disciplinary approach; technology based but not an exclusive field of the ICT experts.
  - From being technology led to focus in pedagogy to support diversity and flexibility in HE.
  - ICT is the vehicle not a product.
In Higher Education

- More learner based, student focused and flexible system.
- Institutions are struggling to normalise eLearning as part of the HE process.
- Adopted by a large number of Universities worldwide (WebCT: over 2,500).
  - Open courseware initiative launched by MIT in April 2001.
In Higher Education

- Be more effective in delivering knowledge:
  - Every learner learns at his/her own pace.
  - Every learner learns at his/her own time.
  - Every learner learns at his/her own location.
- Make the learning experience more effective and enjoyable.
- Achieve greater learner participation:
  - eLearning provides a higher level of motivation.
- Proven method that improves learning, performance and grades.
  - Research results consistently demonstrate superior benefits of eLearning.
In Higher Education

- It has been criticised for being technology led, with a focus on providing materials driven by the availability of new technologies rather than the needs of learners.
- It has recently focused more on the learner and enabling students and other users to develop more independence in learning and to share resources.
- This change matches the developments in pedagogy and the increasing need to support diversity and flexibility in HE.
What is Offered

■ Students are able to:
  ■ access information, resources, tutor support, expertise and guidance.
  ■ communicate with other students effectively wherever they are.
  ■ check and monitor their own progress and achievements to enable personal and professional development.
What is Offered

- Teachers are provided with:
  - tools for course design to enable better communication between them and their students, giving feedback and targeted support.
  - access to information about the materials available, and support for continuous improvement.

- Subject communities are able to share materials in ways that enhance their ability to produce customised high quality courses.

- Institutions are able to build appropriate infrastructure and resources support for learning functions.
VLEs (Educational Virtual Learning Environments)

- Newer platforms, both commercial and non-commercial (open source) have been developed that integrate a wealth of useful facilities such as:

  - **Static Content:**
    - Course Syllabi/Outline.
    - Manuals, books on line.
    - Course notes, examples, assignments.
    - Additional teaching materials including multimedia.
    - Exam guidelines, past papers, etc.
    - Internet links to relevant resources.
    - Glossaries.
VLEs (Educational Virtual Learning Environments)

- **Dynamic Content:**
  - Virtual one to one lecturer supervision.
  - Journal, notice-boards/announcements.
- **Student to student interaction:**
  - Chat, forums and discussion groups.
  - Group projects.
- **Tools to monitor progress:**
  - Assignments, self-assessment quizzes.
  - On-line examinations, automatic grading.
  - Surveys.
- **Workshops.**
Can be described as a learning program where more than one delivery mode is being used with the objective of optimising the learning outcome and the cost of program delivery.

At the simplest level, a blended learning experience combines the offline and online forms of learning, where online learning usually means "over the Internet or Intranet," and offline learning happens in a more traditional classroom setting.

Organisations have reported exceptional results from their initial blended learning initiatives.

- Learning objectives can be obtained in 50% less class time than traditional strategies.
- Travel costs and time have been reduced by up to 85%.
- Acceleration of mission-critical knowledge to channels and customers can have a profound impact on the organization's top line.
eLearning Benefits

- **Cost-Effectiveness**
  - Corporations can save a significant amount of money by cutting travel, instructor, and administration expenses.
  - According to statistics, e-Learning can save 40% to 80% of training expenses.
  - Moreover, with the flexibility of learning time, employees do not incur productivity losses or miss important calls by attending training classes.

- **Learner Control**
  - Asynchronous e-Learning is an individualised self-paced learning approach.
  - Learners can control their own learning speed and path according to their learning styles.
eLearning Benefits

- **Just-In-Time Training**
  - Deliver knowledge on-demand, with up-to-the-minute information.
  - Learners can access training instantly at the office, at home, or on the road, 24 hours a day, seven days a week.
  - Education is available when and where they want (and need) it.

- **Efficiency**
  - Effective e-Learning applications can reduce traditional classroom time by as much as two-thirds.

- **Measurement**
  - With a Learning Management System, it is easy to monitor progress, and produce detailed usage reports.
  - With the ability to create assessments, you'll know what employees have learned, when they have completed courses, how they have performed, and their levels of improvement.
eLearning Benefits

Comparison of Costs for Lecture/Lab vs. Multimedia Courses Over Three Years

- Lecture/Lab Costs:
  - Year 3: $591,827
  - Year 2: $830,400
  - Year 1: $519,000

- Technology-Delivered Costs:
  - Year 3: $221,054
  - Year 2: $328,740
  - Year 1: $655,600

Note: The costs for the technology-based course include the cost of development for the lecture/lab course on which it is designed. The pattern of costs over several years for this course is similar to that found in other organizations: development costs for technology-delivered courses are higher, but delivery costs are lower when compared to instructor-led courses.


Cost Per Learner Over Five Years

- Traditional Training: $760
- Technology-Delivered Training: $106

Comparison by Price Waterhouse of cost-per-learner over five years for traditional instructor-led training ($760) vs. technology training ($106).

Top 10 Benefits of eLearning

1. Cost savings
2. Anytime
3. Anywhere
4. Scalable
5. Tracks users
6. Self-paced
7. Participative
8. Consistency
9. Multimedia delivery
10. Self-assessment
Top 10 Cost savings in eLearning

1. Trainer accommodation
2. Trainer travel
3. Trainer subsistence
4. Learner accommodation
5. Learner travel & subsistence
6. Classrooms
7. Equipment
8. Off-the-job time
9. Print costs
10. All of the above repeat costs
Top 10 VLEs (Educational Virtual Learning Environments)

1. WebCT
2. Blackboard
3. Moodle (free)
4. E-college
5. SunGard
6. Sakai Project (free)
7. Desire2Learn
8. uPortal
9. Jenzabar
10. LearnWise (UK)
Top 10 LMSs (Learning Management Systems)

1. Saba
2. TotalLMS
3. Meridian KSI
4. Pathlore
5. Plateau
6. PeoplesFirst
7. Oracle iLearning
8. Peoplesoft
9. SAP
10. THINQ
11. KnowledgePlanet
Top 10 Groups to convince in eLearning

1. Senior management
2. Middle management and sponsors
3. IT management
4. HR management
5. Internal trainers
6. External trainers
7. Learners
8. Union
9. Suppliers
10. Existing and other e-learning groups
Top 10 Problems in implementation of eLearning

1. Bandwidth
2. Cultural resistance
3. Lack of interaction
4. Lack of engaging content
5. Integration
6. Measuring ROI
7. Firewalls
8. No standards
9. Browser problems
10. Accessibility