



**Strathmore University**

**6<sup>th</sup> ICT Conference**

KICC 10<sup>th</sup> September 2005

# eLearning and the Revolution in the Educational Sector

Dr Joseph Sevilla

# eLearning Definition

- 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.
  - October: 2002: Stanford, Princeton, Yale and Harvard formed a Consortium.



# 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.



# Blended Learning for the Enterprise

- 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.

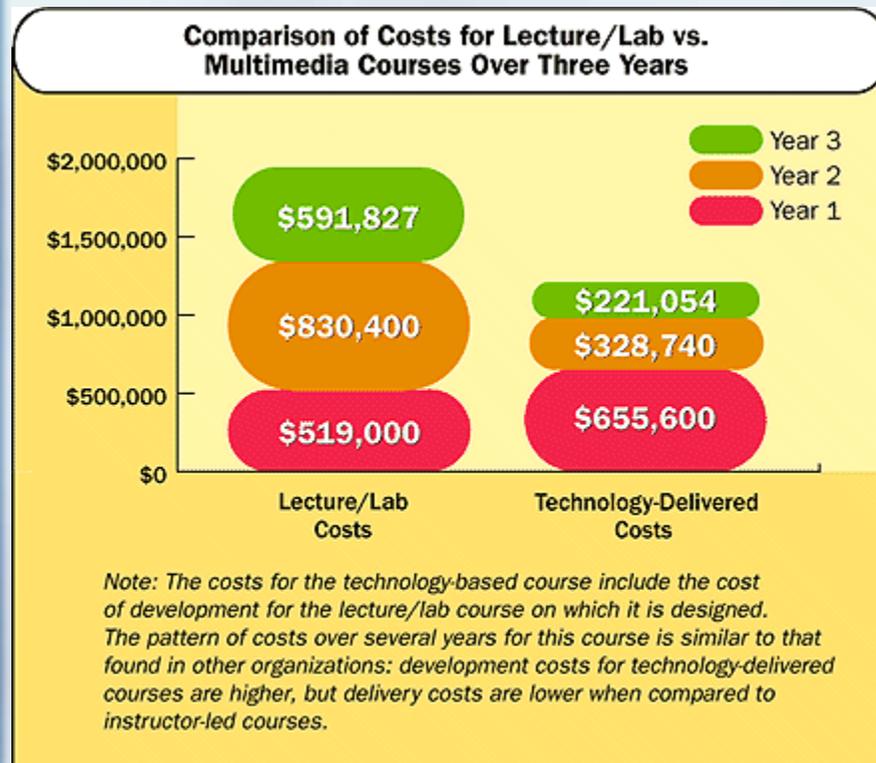


# eLearning Benefits

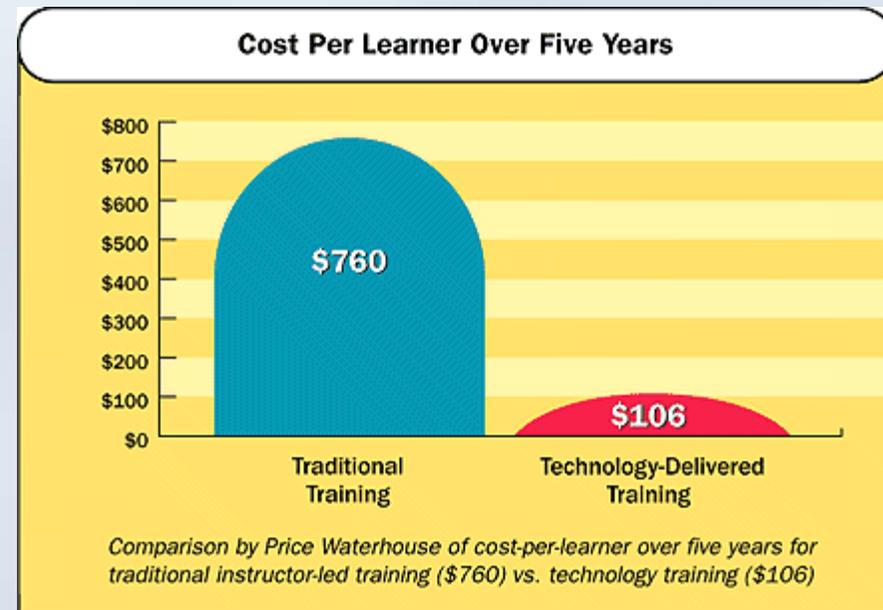
- **Just-In-Time Training**
  - Deliver knowledge on-demand, with up-to-the-minute information.
  - Learners can access training instantly at the office, at home, or on the road, 24 hours a day, seven days a week.
  - Education is available when and where they want (and need) it.
- **Efficiency**
  -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



Source: brandon-hall.com. "Return on Investment and Multimedia Training." (1995).



Source: brandon-hall.com. "Return on Investment and Multimedia Training." (1995).



# 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. PeopleComeFirst
- 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

