Blended learning, online course delivery and MOOC

AlQuds Model for E-Learning Management System

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Session Objectives:

- **Is blended learning common?** How is it used? What are the challenges regarding ensuring quality but also assessing the impact of this?
- **For those with experience in e-learning and blended learning in particular,** how has this changed how courses are conducted and the resource/planning implications? How has this affected examinations for example? Learning materials?
- **Are some courses offered entirely online?** If so, what are some of the practices regarding examinations? What are the challenges? How is quality assurance done (internally but also nationally)?
- **For those with less experience in e-learning,** what are some of the institutional fears regarding issues such as resourcing this endeavor and quality assuring it? What is needed to surpass some of these fears and resistance?
Evolution of Education Technology

Internet: Greatest impact

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What happens online in 60 seconds? (2012 - 2014)

- 120 hours video uploaded
- 72 hours video uploaded
- 25+ hours
- 31 billion
- 20 billion messages
- 347 posts
- 1106 blog posts
- 50 billion messages
- 1380 blog posts
- 342,000 tweets
- 278,000 tweets
- 1.4 million
- 1.4 million
- 98,000 voice calls
- 216,000 photos
- 41,000 photos uploaded
- 694,445 searches
- 2 million searches
- 79,361 posts
- 2.5 million posts
- 204 million emails sent
- 168m emails sent
- Email
- Facebook
- Google
- Instagram
- Skype
- Twitter
- Wordpress

Picture by Centre for Learning and Teaching
3rd November 2014
E-learning for Education

What is E-learning?

The use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance

Rosenberg, 2001

E-learning is Internet-enabled learning

http://www.cisco.com

E-Learning can mean different things to different people:

• E-learning,
• blended learning,
• online learning,
• technology based learning,
• enabled learning,
• m-learning,
• hybrid learning,
• computer based learning,
• smart learning.
Terminology: e-learning, online learning, distance learning, blended learning, MOOCs, should be clarified.

- **e-learning** = *ICT based learning* generic expression for all learning based on *information and communication technologies (ICT)*
- **on-line learning**: learning delivered via the internet
- **distance learning** where the student is not physically present
- **blended learning**: Combining physical presence of student on campus with “content and instruction via digital and online media with some element of student control over time, place, path, or pace” (wikipedia)
- **MOOCs –Massive Open Online Courses**: variety of technologies and tools to support learning in different contexts

E learning in Europe: limited use, growing interest. 89% have strategies for e learning
Basic Definitions

New training (& learning) methods are emerging in the context of educational innovation:

- **‘Augmented learning’** refers to face-to-face contact between the instructor and students using a mediated approach (a use of a Personal Computer in the classroom with the augmented reality tools to enrich and/or enhance learning.)
- **‘Enriched’**: the web and the internet are used in class. **‘Enhanced’**: the teacher uses email to communicate information related to the course before and after the class.
- **‘Hybrid’, ‘Mixed’ or ‘Blended’** when some class sessions, tutorials, practical or other work are replaced by online self-study or self-paced activities.
Basic Definitions
E-learning: Blended mode

Chalk-and-board has long ruled the classrooms will not be eliminated.

Interactive Digital Content:
- on demand learning
- interactive

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Delivery mode will change

Growing student population
Increase in tuition fee
Lack of facilities and funding

More virtual universities
Cost effective solutions

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Changing learning methods and approaches

- Virtual university provides e-learning
- Traditional universities
  - technology enhanced learning (1-29%)
  - blending starts with 30% online up to 70% university.
  - Above 80% is online.
- Blended:  - Design
  - Delivery
  - Assessment
- Less than 50% blended without changing mission and vision of the University!
- More than 50% blended obligated to change and become more distance learning
Challenges and Requirements

- Some important points to consider:
  - teacher’s skills,
  - Student’s skills,
  - infrastructure.

Team to prepare online courses should consist of:

1) Social Scientists,
2) Educational Expert
3) Subject Matter Expert
4) Information Technology Expert
Virtual Learning Environment Components:

- Storage of contents
- Communication tools
- Quizes
- Forums
- Assignment management
- And more …
What is Moodle??

- Moodle is a course management system (CMS) - a free, Open Source software package designed using sound pedagogical principles, to help educators create effective online learning communities (Moodle.org)

- Moodle is a free software e-learning platform (also known as a Course Management System (CMS), or Learning Management Systems (LMS), or Virtual Learning Environment (VLE))
  - designed to help educators create online courses with opportunities for rich interaction
  - Its open source license and modular design means that people can develop additional functionality (wikipedia)

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VLE at Al-Quds University

Welcome to Al-Quds University Course Management System (CMS).

All Users: To access your course as a teacher or as a student, you need to create an account on this system. You can do that on the signup page. If you experience any problem logging on to or using the system, or if you forget your password, please send an email to dsdepartment@alquds.edu.

Students: Students may need an enrollment key to access their class. This enrollment key will be provided to the students by the respective class teacher. To become familiar with this site please read "Student Guide to Using Moodle".

Teachers: If you are a faculty member wanting to have a course set up for you, please create yourself an account on this system through the signup page, then fill up this form giving us your login/user name, college, department, course name, and course number. We will set up your course for you and set up as the course teacher. To become familiar with this site please read "Teachers Guide to Using Moodle".

Please explore this site and provide your feedback.
Example of one of the courses

15 September - 21 September

Welcome to Advanced Database Systems (807580) course.

This week will be introduction and review the topics of the course and POST-RELATIONAL DBMS – SQL3.

You will find here an electronic copy of one of the reference books as well as a power point presentation of the lectures for this week. Also you will find a book that will guide you to a topic for choosing your term paper topic. I hope you will enjoy reading them.

You will have different tasks and activities to do this week please read the tasks required and try to do them.

Good luck in this course.

DBMS Comparisons with regard to the support of SQL3
Term paper topic
Course Outline
Prelim Book
Post-Relational Database Lecture Notes

22 September - 28 September

This week we will be introduced to the object oriented database model, its relation to the ER diagram, look at its constructs, ODMG Model, and Discuss some of the key features of the O2 DBMS.
Moodle Philosophy

- Social constructionist pedagogy
  - People actively construct new knowledge as they interact with their environment
  - Asserts that learning is particularly effective when constructing something for others to experience
  - Extends the above ideas into a social group constructing things for one another, collaboratively creating a small culture of shared artifacts with shared meanings
Static learning

- Static Course Material
  - Text pages
  - Web pages
  - Links to anything on the Web
  - A view into one of the course's directories
  - A label that displays any text or image
Interactive learning

- Interactive Course Material
  - Assignment
  - Choice (Poll)
  - Journal
  - Lesson
  - Quiz
  - SCORM
  - Lams
  - Survey
SCROM: “Sharable Content Object Reference Model”

- SCORM is a set of technical standards for e-learning software products. SCORM tells programmers how to write their code so that it can “play well” with other e-learning software.
- It is the de facto industry standard for e-learning interoperability.
- SCORM governs how online learning content and Learning Management Systems (LMSs) communicate with each other.
- SCORM does not speak to instructional design or any other pedagogical concern — it is purely a technical standard.
Social learning

- Social course material
  - Chat
  - Forums
  - Glossary
  - Wiki
  - Workshop
Features for teachers

- Logs
- Scales
- Grades
- The teacher forum
More on Moodle........


Example from Alquds University in Jerusalem/Palestine

- Directly connected to the Registration System
- Students are registered in the course automatically
- Teachers have their course in their portal

http://eclass.alquuds.edu
Number of Courses per semester by faculty

Semester/faculty

<table>
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<th>Science and Technology</th>
<th>Total</th>
<th>Arts</th>
<th>Admin. and Economic Science</th>
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Massive Open Online Courses (MOOCs)

- They are online courses
- Courses Free of charge. (but fees may be charged for certification)
- Designed for large numbers.
- Designed to encourage peer to peer learning.
- With no formal entry requirement
- No participation limit
- Meant to award completion certificates rather than course credit but this may not remain the case in future
Evolution of MOOCs

Source: Pierre GEDEON, Digital University, 2014
MOOCs are not only to provide more learning opportunities, but also to improve the learning experience.

Examples: MIT OpenCourseWare
Stanford Branch of MOOCs
  - Udemy [http://www.udemy.com/about](http://www.udemy.com/about)
  - Coursera [https://www.coursera.org](https://www.coursera.org)
edX (Harvard and MIT) [https://www.edx.org](https://www.edx.org)
Example: Moocs for refugies, (Discover Palestine)
MOOCs list [https://www.mooc-list.com/](https://www.mooc-list.com/)

The initial push for MOOCs did not come from the universities, but rather from individual (young) faculty members well acquainted with the technical and business world of information science and the media, who launched companies such as Coursera and Udacity outside of the university.
Example: Moocs for refugies, (Discover Palestine)

Clarity about Model:

What is taking place at the moment is that university leadership and industry are seeking possibilities to get involved in distance and e-learning, but without having yet a clearly defined idea of the economic or educative model to be followed.

The two most crucial issues at stake are currently:
- the question of the business model,
- The issue of awarding credits.

But in whatever way MOOCs may develop in the long run, the fact that they currently get so much attention and cause controversial discussions gives hope that this might inspire a much broader debate on learning and teaching in higher education that seems long overdue.
How MOOCs work?

- **Course design and management (4 Scenarios till now)**
- **Funding:** Producing a MOOC can be quite costly, as it usually requires a large production team. It has been estimated, that over the past months, some 100 million USD in funding has been directed toward MOOCs. Harvard and MIT alone have apparently invested 30 million USD each into edX. It is said that Coursera has attracted 22 million USD in venture capital.
- **Who are the students?**
Course design and management: (Scenarios)

- The institution concludes a contract with a company (e.g. Coursera).
  - It launches an open call among its faculty members and invites applications.
  - A limited number will be selected (note that so far these courses cost money, and do not generate income).
  - The course is produced in collaboration with a Coursera professional team;
- A consortium of universities may set up a company to serve their specific purposes (as in the case of edX);
- Companies would have no contractual relationship with a university, but with individual scholars (or other experts) to provide course content – which is the case of UDACITY and probably also for UDEMY (which advertises itself as a portal for facilitating courses);
- Theoretically, any individual academic could start a MOOC.

The basic technical means are a camera, internet access and a computer with the necessary software. The question, however, is whether it would attract enough followers to justify the capital “M”.

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MOOCs in US and Europe

- Interestingly, MOOCs have been mainly successful in the US, and so far very few universities in other parts of the world participate.

- It has been pointed out that one driver for MOOCs is to cut costs, given that the cost of higher education in the US is today five times higher than in the 1980s. Thus, this new approach could save money both for institutions:
  - regarding campus facilities, and
  - probably also teaching staff,
  - and also students, who may accept MOOCs in return for paying lower fees.

- There are many open questions concerning the potential interest in and take-up of MOOCs in Europe, in particular given the importance of public funding and different policies on tuition fees.
Funding/Business strategies

- certification (students pay for a badge or certificate)
- secure assessments (students pay to have their examinations invigilated, i.e. proctored)
- employee recruitment (companies pay for access to student performance records)
- applicant screening (employers/universities pay for access to records to screen applicants)
- human tutoring (as opposed to automated) or assignment marking (for which students pay)
- selling the MOOC platform to enterprises to use in their own training courses
- sponsorships (third-party sponsors of courses)
- tuition fees.

(see e.g. http://www.gilfuseducationgroup.com/coursera-will-profit-from-free-courses)
Who are the Students?

A survey carried out among the participants of a Coursera course:

- half of them were working professionals, many of them enrolled elsewhere in education.
- Other smaller groups were school pupils and the unemployed.
- Interestingly, close to 40% of participants signed up because they were curious about the topic,
- another 30% wanted to sharpen their skills, and
- only 18% were aiming at a better job.
Motivation for MOOCs

• MOOC providers make the point that students come from all over the world. Both Coursera and UDACITY claim that most of their students reside outside the US (74% for Coursera)

Three issues related to geography and access:
• the digital gap between the developed and developing world,
• the issue of relevance and applicability of knowledge in other parts of the world and
• the fact that, so far, MOOCs have not been considered as a means of addressing problems in a particular region or city