

Review

Role, objectives, requirements and activities of eLearning units in traditional universities

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It could be said for certain that eLearning has become an issue for the office of each university president, in view of the enormous benefits of incorporating it into a university system. The proliferation of eLearning in recent years has been imposed on the universities who would want to adopt some kind of eLearning to establish a committee or a unit for integrating and administrating it. Unfortunately, after reviewing documents and sites of dozens of these university units, confusion is apparent in establishing these units as well as poor knowledge of how to deal with the issue of eLearning. This paper provides a brief introduction to eLearning unit (eLU), addressing some sites of eLUs in previous studies, proposing a road map and a structure to integrate eLearning project, illustrating the needed staff of eLU, summarizing the relations of eLU with other university units, and finally, listing its main tasks and activities.

Key words: eLearning unit, eLearning committee, project, eLearning initiative.

INTRODUCTION

eLearning has the potential to enhance and support the university learning and teaching. Recently, most of universities are trying to integrate and adopt initiatives of eLearning to its systems by establishing a unit of eLearning to direct and supervise it in view of the enormous benefits that could be gained.

When reviewing sites of these units, confusion is apparent in establishing these units, as well as poor knowledge of how to deal with the issue of eLearning due to the subject modernity, and lack of specialists and scarcity of studies dealing with this complex subject that has impact on the educational process.

Generally, there is no common definition for eLU. Upon exploring these units, you would find a brief description of their works. eLU could be defined as an academic and administrative unit established by universities to oversee some kind of eLearning and to manage the process of designing electronic courses (eCourses). eLUs could be found with many labels, and could be part of a wide unit;

e.g.:

1. Center or unit of eLearning,
2. A committee, team or group of eLearning,
3. Center or unit of eLearning and continuing education or lifelong learning,
4. Center of eLearning and,
5. Center or unit of eLearning and open education,

Problem statement and approach

The aim of the research is to investigate how to establish eLearning units in traditional universities, as well as declare their role, requirements and activities. The main contribution of the research is the development of a road map and a structure, to help the universities in integrating and adopting eLearning.

The research followed a case study approach and data collected mainly from documents of eLUs in traditional universities on their web sites as well as observation during establishing eLUs in Palestine Polytechnic University (www.ppu.edu) and Palestine Ahliya University (www.paluniv.edu.ps).

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Limitation of study

eLearning specialized units can be found in traditional, open and virtual universities, as well as in companies to educate and train their staff. It can also be found separately providing paid services in training and education. Nevertheless, this paper will focus on studying eLUs in traditional universities.

Previous studies

Due to the relative newness of the eLearning subject, there is a clear scarcity of studies dealing with eLUs, and most of what could be found is abstracts in their Web sites. Here are some of them:

1. eLU at Pennsylvania State University, <<http://elearning.ag.psu.edu>>.
2. eLU at Southern University, <<http://web.subr.edu/index.php?id=532>>.
3. eLearning Development and Support Unit at University of the Western Cape, <www.uwc.ac.za>.
4. eLU at University Malaysia Sarawak (UNIMAS), <www.calm.unimas.my>.
5. eLU at Mansoura University, <<http://mansvu.mans.edu.eg/indexen.php>>.
6. eLU at University of King Faisal, <www.kfu.edu.sa/en>.
7. eLU at Palestine Polytechnic University, <http://elearning.ppu.edu/>
8. eLearning Centre at Islamic University of Gaza, <www.iugaza.edu.ps/elearning>.

THE ROAD MAP - STRATEGIC PLAN

In order to succeed, adopting any eLearning solution requires a preparation of an eLearning strategic plan (ESP), which covers a number of years. ESP will provide an obvious starting point for the activities, priorities and policies necessary to ensure the application of eLearning initiatives effectively and appropriately. Consequently, it identifies the objectives of eLearning and explains the steps that would achieve those objectives. Moreover, it identifies requirements and needs necessary for the implementation of eLearning solutions successfully and develops an estimate budget.

In general, the plan provides a "road map" of what must be done in order to build and integrate eLearning. It is better to be a short-or medium-range, that is, between 3 and 5 years, and then re-study it after the expiry of the term, in view of the rapid ongoing changes in the elements of eLearning.

There are many studies about the necessity of ESP to adopt eLearning initiative in universities, such as Sharpe (2006), Auckland (2008), Bristol (2005), MacKeogh (2009) and Mohammad (2008).

eLearning strategic plan, ESP

Here are the main phases:

Phase I: Formatting the project committee

The university needs to form a joint committee consisting of various university experts in sectors, e.g. IT, planning and development, education and instruction, multimedia, media and public relations.

They give the authority to ask help from all university levels, to view the infrastructure and all university resources.

Phase II: Developing a strategic plan

Setting the vision, mission and goals: This part is done after exploring the visions of university constituents as well as surveying the eLearning and related IT university staff, about the main objectives of integrating and adopting eLearning initiative to the university system. It needs:

1. Determining the desired vision, or overall objective of the project.
2. Clearly defining eLearning vision which needs to be understood by the constituents of the institution and incorporating into the institution's strategic plan (OBHE and WCET, 2008).
3. Setting the project goals to be achieved by the university.

Bridging the gap (Where are we?, what do we want?):

This part deals with three sectors: infrastructure, skills and content in term of their existence and needs. It could be realized by:

1. Surveying the current situation (Where are we?): It aimed to find out the current state of affairs. This step includes the following:
 - a. Infrastructure:
 - I. Surveying the physical infrastructure of ICT, e.g.; PCs, servers, and networks.
 - II. Surveying the available software and systems.
 - III. Surveying the available Internet connections, speed and coverage of the university buildings.
 - b. Skills:
 - I. Surveying the skills of IT among the lecturers and university staff. The key point here is to check their ability to use PC and internet.
 - II. Surveying the skills of eLearning among the lecturers

and university staff to check the experiences in eLearning issues.

c. Content:

- I. Surveying the available eLearning content.
- II. Surveying the available eContent -eResources.

2. Determining the project requirements (What do we want?): This study is strongly influenced by the vision and objectives of the project. It is based on sectors of infrastructure, skills and content. The main points to be considered are:

- a. Possibility of using current resources or updating available resources.
- b. Identification of new requirements.

This study discusses the software requirements in general. Another comprehensive study will be realized in the third step.

Realizing the following studies

1. A study of the adopted eLearning, as well as its level of integration: This study is to answer the following questions:

a. What type of eLearning approach intended for realizes? By the proportion of online used in eLearning, there are three types:

I. Enhancing approach: The IT is used to support, facilitate and enhance the face to face (f2f) learning by using web-based technology and it can reduce up to 24% (Kaminskaya, 2006).

II. Blended approach: It mixes traditional and online learning, consequently, substantial portion of content is delivered online; typically it can reduce 25 to 74% (Itmazi, 2008).

III. Online approach: It uses the virtual learning, which can be realized without any need to f2f meeting, however, it could has some f2f meeting, e.g. for exams, but more than 75%.

b. How will eLearning be delivered? By the way of content and activities delivery of eLearning, there are two types:

I. Synchronous eLearning: Means that all students and instructor are logged on at the same time and communicate directly and virtually with each other. "Synchronous eLearning events include live web-casts, chat rooms, application sharing, and whiteboard sessions (Kapp, 2001).

II. Asynchronous eLearning: In this model, the communication between participants does not occur

simultaneously. "Learners can thus take courses at own pace. Courseware is normally available 24 h per day, 7 days per week" (Fallon, 2003). Examples of this model includes, taking a self-paced course, discussion group.

c. Will this type of eLearning be applied as independent program such as obtaining a degree of Bachelor where all of its courses presented through eLearning, or it will be applied to specific courses?

2. A study to identify the needed software infrastructure: Determining the needed software is more difficult than determining the needed hardware: e.g. PC devices, networks and equipments. This study has to determine the following:

a. eLearning platform: This item has a close relationship to the aforementioned, because some platforms appropriate for types of eLearning more than others. This item necessitates to identification the following:

I. Type of eLearning platform: Learning management system (LMS), learning content management system (LCMS), virtual learning environment (VLE) etc.

II. License of eLearning platform: e.g. open source or properties (commercial) platforms.

b. The need for other related software.

c. Source of platform and related software, which could be one or more of the following:

I. Developing some of these systems by the university computer center.

II. Demanding from software companies to develop some systems.

III. Purchasing ready systems or obtaining OSS.

3. A study to determine source of eContents and e-activities: Content and activities could be found in multiple forms from many different sources. This study has to determine the source of eContents and e-activities; whether they are developed at the university or purchased, or shared with other partners.

4. Study about the courses type to be developed into eCourses:

Upon eLearning objectives, this study will explain:

a. Which types of traditional courses have to be developed to eCourses, e.g.:

I. All university courses,

II. University elective or required courses,

III. Courses of specific college,

IV. The priority criteria of developing courses.

Identifying the steps necessary to establish eLU and determining its staff: This part explains how to establish an eLU and to determine qualifications and number of its

staff.

Identifying the course developing procedures: This part explains the following:

1. Conversion procedures from conventional courses to eCourses.
2. Quality assurance of eCourses and eLearning standards.
3. Methods of evaluation.
4. Procedures for award and remuneration.
5. Determining the intellectual property rights.

Sex: Designing plans of awareness and training

The following plans will be at the university-level.

A comprehensive awareness plan: Actually, getting employees and prospective students and instructors to use eLearning is a challenge on its own (Cowley, 2002). Resistance to change is often determined by the degree of confidence that others have in the new vision. This confidence is significantly impacted by how much information and understanding there is around what this 'new product' will look like. People need to be able to 'see' where they are going (Pasian, 2006). Overcoming resistance to change is to inform teachers, learners and university staff, about the eLearning benefits better.

A comprehensive training plan: The university staffs who accomplish the tasks necessary to fulfill the vision of eLearning and to be trained to do their jobs the right way; otherwise, they become the barriers to progress. For academics training, there is a Handbook from ETF (2009) that could help in training teacher in eLearning from design to implementation.

Setting a timetable for the project: The timetable will show every step with its schedule during all the period of the project.

Setting the estimates budget of overall project: The estimates budget has to take into consideration all direct costs as well as indirect costs of adopting and executing eLearning program during the period.

Developing an evaluation plan: The overall aim of the evaluation is to ensure that the eLearning program and its strands result in outcomes with clear benefits (JISC, 2004). In addition to ensure that every part of eLearning program is running as planned. The plan needs to explain the procedures of continuous feedback with many ways: Survey, questionnaire, ranking etc. as well as methods of maintenance and modification.

Structure of the plan

Figure 1, shows a structure of the main phases of the

ESP.

ELEARNING UNIT

eLU and the ESP

The eLU treats the ESP as its road map. In fact, eLU and its activities is the application part of ESP, and usually eLU begins its work upon the completion and approval of the plan. The role of eLU is not restricted to realizing the application explicitly of ESP, but it also includes designing some sub-plans and realizing some studies.

The project committee ends its main task after plan approval. However, it is highly recommended to keep the committee as an advisory and assessment committee to ensure the effectiveness of eLU and its commitment to the ESP outlines.

Staff of eLU

Based on the size and vision of eLearning project, the number of individuals of eLU staff may vary; designing eCourses within online approach needs more specialists than designing eCourses within enhancing approach. Moreover, designing eCourses which will be delivered via synchronous method needs more specialists than designing eCourses which will be delivered through asynchronous method. Furthermore, large-sized project needs more specialists than small-sized project, and so on. The size, scope and vision of the project are clarified in the eLearning strategy plan in many stages.

The following roles and responsibilities in Table 1, has been stated as a guide for medium-sized eLearning project which may offer blended eLearning approach. Accordingly, the small-sized project can set some multiple roles to an individual, while the large-sized project can divide a role to more specific sub-roles. A detailed study found on Badrul (2006).

eLU relations

The diversity of eLU activities, which was made clear in this research, forces the director of eLearning to build clear and consistent relationships with the rest of the university centers and units in order to be able to work properly and achieve the objectives of the ESP, particularly because part of its activities overlap with other university units.

Based on vision of eLearning project, university privacy and other discussed issues in the ESP, the relationships between eLU and other units in any university could be built. Here, we will list the most relevant units; mentioning type of relationship leaving the details for each university:

1. Computer center (CS): The infrastructure of eLearning

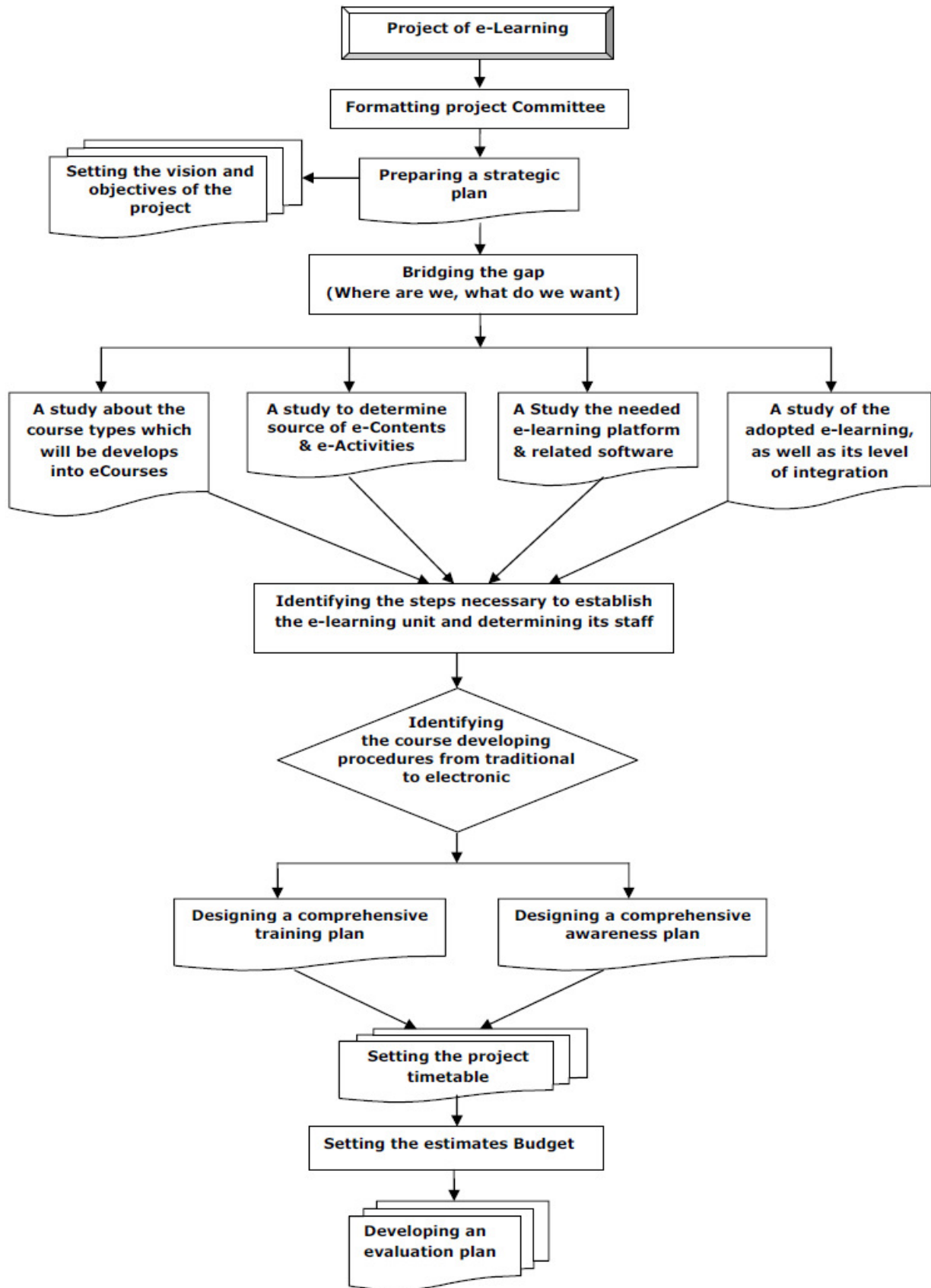


Figure 1. Structure of ESP.

Table 1. Role and individual responsibilities within eLU.

Director	Directs eLU and supervises all of its activities and process, confirms the eLearning detailed sub-plans of the strategy plan and ensures that every part is realized within the schedule
Multimedia specialist	This position may entail more than one individual; sub-specialization includes: Audio and visual creating, developing graphics, 3D animations and simulations, photographing and video-graphing, etc.
Programmer	This position may entail more than one individual; programming e-lessons, designing web site interface, maintaining and making backup for server and database
Subject matter expert	He could be individuals within unit staff, or from university academic staff; developing eContents, e-activities and reviewing existing e-materials for accuracy
Instructional designer	Provides consultation on instructional strategies and pedagogical issues. This position may entail more than one individual; responsibilities include:
Evaluation-reviewing specialist	Reviewing e-materials for clarity, consistency and correct writing text Reviewing quality (may be individual from quality assurance unit) Reviewing the adopted eLearning standards e.g., SCORM Reviewing design and methodology
Systems administrator	Administers LMS server, user accounts, network security, admission, schedules, etc
LMS specialist	Coordinates the instructional and supports staff for eCourses, integrates all pieces of eLearning within LMS, provides software-related technical help

can be set with cooperation with CS. The cooperation sector could be hardware; e.g. PC labs, servers, workstations, and other computer peripherals, accessories as well as Local and international networks, also it could be in software; e.g. operating systems, LMS, multimedia...etc. It well known, that some positions in eLU could be found at CS, e.g.: programmers, server admin etc.

2. Digital library (DL): Much eLearning recourse comes from DL.

3. Quality assurance unit (QAU): All university activities including eLearning must be approved from QAU, which help eLU in putting standards and review eContent and e-activities of eCourses. One of evaluation-reviewing specialists' positions in eLU might be found in QAU.

4. Research unit (RU): Some of eLearning tasks are participating in eLearning researches which need to cooperate with RU.

5. Education unit (EdU): Because of the fact that eLearning is a kind of learning, it needs to ensure that this kind has pedagogical sound, so the EdU can help eLU in the instructional theories and review the eContent and e-activities of eCourses. One of eLU positions could be found in this EdU.

6. Multimedia center (MC): eLU needs a direct relation to MC if it found as a separate unit. One of eLU positions could be found in MC.

7. Other units: eLU can build relation to other University units e.g.: Public relations unit, planning unit, and academic development unit

Tasks and activities of eLU

The main task of eLU is managing and supervising all the eLearning activities in the university. In the following, we list the most important activities:

1. Managing the unit.
2. Supervising unit websites, e.g.:
 - a. Unit site: Include a variety of sources, e.g.:
 - I. News and announcements.
 - II. Instructions and evidence.
 - III. Studies and research on eLearning.
 - IV. Training documents.
 - b. Site of eLearning courses (eLearning platform)
 - I. Installation of the eLearning platform (e.g. LMS)
 - II. Follow-up courses, recording the participants and assigning teacher to eCourses.
 - III. Customization platform to serve the university case.
 - IV. Creation of an eLearning forum.
 - V. Overseeing the development of eCourses.
3. Providing a service to all trainees and trainers.
4. Preparing and presenting books, manuals and documents, including:
 - a. Training documents on how to use eCourses: For students, lecturers and administrators.

- b. Awareness of information.
 - c. Identifying information of the unit, including brochures.
 - d. Documents about eLearning pedagogical issues.
5. Implementation training workshops.
 6. Cooperating internationally, regionally and locally in the research, projects, conferences and workshops concerning eLearning.
 7. Evaluating eCourses.
 8. Activating a research groups in techniques and pedagogic of eLearning.
 9. Sharing and exchange with other partners of eLU in other universities.
 10. Setting the preferred standards of eLearning.
 11. Making awareness.
 12. Offering eLearning services may be as a business - to educational institutions (universities, colleges, schools), which include:
 - a. Installing and hosting LMS (eLearning platforms).
 - b. Supervising and training.
 - c. Designing ESPs.
 - d. Carrying out studies and research on eLearning issues.
 - e. Providing eLearning consulting and recommendations.
 - f. Publishing periodical, magazine and journal of eLearning:

CONCLUSION

Adopting high-quality eLearning at university is a complex process. It requires a variety of competencies at every stage of the integrating process. The literature on the subject so far suffers from confusion and poor knowledge.

Many traditional universities were tried adopting the subject without adequate studies, costing these universities more time and effort and perhaps a project failure. This paper aims to clarify the adoption procedures with flexibility of each university according to their privacy and vision.

The proposed structure of the eLearning strategic plan explained in this paper provides a clear approach for adopting and integrating eLearning imitative to traditional universities. In addition, the paper provides explanation about the roles, responsibilities and tasks of eLearning unit.

REFERENCES

- Auckland (2008). eLearning Strategy - V0.4, The University of Auckland, Oct. 1. Available: http://cad.auckland.ac.nz/content/files/eldd/elearning_strategy.pdf
- Badrul K, Vinod J (2006). ELearning—Who, What and How? Sage Publications. DOI:10.1177/097325860500100104, March 1. J. Creative Comm. 1(1): 61.
- Bristol (2005). eLearning Strategy 2005 – 2010, The University of Bristol, approved by Education Committee on October 13, available: www.bristol.ac.uk/esu/elearning/elearningstrategy.pdf
- Cowley J (2002): eLearning Adoption & Marketing, Cowley J et. al. Elearnspace, October 27, Available at www.elearnspace.org/Articles/elearningadoption.htm, viewed on March 5, 2010
- ETF (2009). ELearning for Teacher Training: From Design to Implementation. Handbook for Practitioners, MEDA-ETE regional project. MEDA-ETE-Project Team ETF. European Training Foundation, ISBN: 978-92-9157-569-5, doi: 10.2816/82694, www.meda-ete.net
- Fallon C, Brown S (2003). eLearning Standards: A Guide to Purchasing, Developing, and Deploying Standards-Conformant ELearning. Fallon CRC Press, p. 252.
- Itmazi JA, Tmeizeh MJ (2008). Blended eLearning Approach for Traditional Palestinian Universities. IEEE Multidisciplinary Engineering Education Magazine, ISSN 1558-7908. Vol. 3(4). December. (Online Version) www.ewh.ieee.org/soc/e/sac/meem/index.php/meem/article/viewFile/45/45
- JISC (2004). Evaluation Strategy for ELearning Programme, JISC, 18, June 16. Available at www.jisc.ac.uk/media/documents/funding/2004/08/apxe_learning_evaluation_strategy_2.pdf, viewed on March 5, 2010.
- Kaminskaya E (2006). Teaching with Technology: A Case Study Of Online Faculty Development at The University Of Central Florida, Int. Res. Exch. Board, University of Central Florida.
- Kapp KM, Latham WF, Ford-Latham NF (2001). Integrated learning for ERP success: A learning requirements planning approach, Contributor Carol A Ptak, CRC Press, p. 368.
- MacKeogh K, Fox S (2009). Strategies for Embedding eLearning in Traditional Universities: Drivers and Barriers, MacKeogh Elect. J. eLearn. Volume, 7 Issue 2, (pp147 - 154). Available online www.ejel.org/Volume-7/v7-i2/MacKeogh_and_Fox.pdf
- Mohammad EE (2008). Framework for ELearning Strategy in the Egyptian Universities, IADIS International Conference eLearning, Amsterdam, July 22-25.
- OBHE and WCET(2008). The Evolving Academic eLearning Endeavour: The Impact of Using Technology in Learning and Teaching - Final Report, The Observatory on Borderless Higher Education, WCET March, available at www.obhe.ac.uk/documents/view_details?id=10
- Pasian B, Woodill G (2006). Plan to Learn: Case Studies in eLearning Project Management, Canadian eLearning Enterprise Alliance (CeLEA). 2006. eBook available at www.celea-aceel.ca/Content/Documents/Document.ashx?DocId=1945, Viewed on March 5, 2010.
- Sharpe R, Benfield G, Francis R, (2006). Implementing a university eLearning strategy: levers for change within academic schools. ALT-J. Res. Learn. Tech. 14(2): 135-151, DOI: 10.1080/09687760600668503