INTEGRATING E-LEARNING INTO HIGHER EDUCATION

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Abstract:

The paradigm shift from teaching to learning is rapidly gaining force and credibility, thus leaving prominent international institutions of higher education worldwide with no choice but to meet the challenge by integrating online learning within their curriculum. This strategic move towards e-learning has been largely facilitated by the rapid expansion of information technology namely, the power of the Web and the increasing access to the Internet. The implications of the online learning for students, faculty and institutions are profound and are affecting the fundamental educational values. Online learning is transforming the conceptual as well as the physical dimensions of the learning equation and creating new realities within the landscape of the teaching/learning milieu. This new learning environment requires new attitudes, new terminology, new methods of delivery, and new means of assessment supported by congruent and accommodating technological infrastructure that enables e-learning to fulfil its potential and make it possible for universities and institutions of higher education to assume their leading role in the post 'chalk and talk' era.

In addition to an extensive review of relevant literature, this exploratory study draws on the personal experience of its author with e-learning while teaching at one of the pioneer universities in the field of distance learning. The paper argues that the time has come to embark on a major shift in focus aimed at developing and implementing a more practical and coherent e-learning environment in our universities and institutions of higher education. The need for such a shift in focus becomes more imperative in light of the new perception of e-learning as an instrument of reform intended to develop independent and resolute individuals capable of dealing with uncertainty, and using acquired knowledge in a constructive manner that goes beyond scoring high marks on quizzes and passing school examinations.

Key Words: teaching/learning, traditional education, alternative education, Blended eLearning approach (BeLA), on-line/e-learning

ملخص:

إن النقلة النوعية من التعليم إلى التعلم التي يشهدها قطاع التعليم العالي أخذت <mark>وبسرعة تكتسب</mark> قوة ومصداقية، مستفيدة من التطور الكبير في تكنولوجيا المعلومات وانتشار الشبكة العنكبوتية، حيث لم يترك هذا الواقع الجديد لمؤسسات التعليم العالي خيارا سوى قبول التحدي من خلال دمج التعليم عبر الشبكة العنكبوتية ضمن مناهجها الدراسية. لذا فان عمق الآثار المترتبة على تبني التعلم الإلكتروني لا يقتصر على الطلبة وأعضاء الهيئات التدريسية والمؤسسات التعليمية، ليطال القيم الأساسية لمجمل العملية التعليمية فضلا عن الإبعاد الفيزيائية لمعادلة التعليم / التعلم كبناء البنية التحتية التكنولوجية لملائمة طبيعة المرحلة. إن هذه الحقائق الجديدة تتطلب مواقف وسياسات جديدة وأساليب متطورة في التدريس والتقييم لتكون منسجمة مع بيئة واقع التعلم الالكتروني لتمكن الجامعات ومؤسسات التعليم العالي من تحمل مسؤولياتها والقيام بدورها الرائد في بناء الإنسان في مرحلة ما بعد الطبشورة والسبورة.

اعتمدت هذه الدراسة الاستطلاعية بالإضافة إلى استعراض شمولي لعدد من المؤلفات ذات الصلة على تجربة غنية للباحث مع التعلم الالكتروني أثناء فترة عمله في إحدى الجامعات الرائدة في مجال التعلم الالكتروني والتعليم عن بعد ولقد خلصت الدراسة إلى ضرورة اتخاذ رؤية أكثر شمولية ووضع فلسفة التعلم الالكتروني نصب أعين صانعي القرار في جامعاتنا ومؤسساتنا التعليمية. إن الحاجة <mark>لمثل هذا التوجه</mark> يصبح أكثر إلحاحا في ضوء التصور الجديد الذي يرى في التعلم الالكتروني أداة إصلاح وتطوير تمكن الطالب من التعامل مع حالة عدم التيقن التي هي من ابرز سمات هذا العصر وكذلك من استخدام المعارف المكتسبة بطرق <mark>بناءه</mark> تتجاوز تسجيل درجات عالية في الاختبارات واجتياز الامتحانات المدرسية التقليدية.

1. Introduction:

On-line learning is the future of education. Those trapped in the world of the chalkboard and textbooks may be left behind as education advances into the 21st century (Canning-Wilson, 2000).

A critical reading into contemporary issues of the universal educational landscape suggests that a university or an institution of higher education without a creative pragmatic e-learning program is a vulnerable institution and is distanced for an inevitable "educational bankruptcy". While traditional education was *"designed by people from a world that used to be, for a world that will be no more"* (Handy, 2007, p. 9) one can, likewise, argue that e-learning is being designed by people from an emerging world for a world that is yet to be. Today, distance/e-learning education has become firmly established and continues to grow, and there is increasing recognition that distance education provides an equivalent, if not greater, value to the face-to-face mode of delivery through different experiences (Kretovics & McCambridge, 2002). Under this collaborative model, learners are connected to other learners, instructors, and to the content of their programs - thus expanding their learning horizon and enhancing their intellectual capacity (Matheos, Rogoza, & Hamayil, 2009). A 12-year meta-analysis of research by the U.S. Department of Education of more than 1000 studies concluded that "…online learning has been modestly *more* effective, on average, than the traditional face-to-face instruction" (Means, Toyama, Murphy, Bakia, & Jones (2009, p. 51).

The demand for higher education is expanding exponentially throughout the world. According to the World Bank, it is expected that by 2025 as many as 150 million people will be seeking Higher education (Goddard, 1998). In parallel, e-learning is rapidly becoming one of the dominant paradigms for the global teaching and learning formula (Goodfellow & Lea, 2007, p. 9). What differentiates e-learning from traditional education is its focus on setting priorities that meet the dynamic changes taking place in all aspects of life, not the least is the new information age economy (الفريح، 2002). The information age economy stipulates initiative, collaboration, diversity, and requires a rethink and an honest look into the way universities go about creating leaders and transforming businesses.

The primary objective of this paper is to debate the pros and cons of non-traditional education, namely e-learning, as a viable alternative to traditional education. Furthermore, the paper seeks to explore the impending contributions that e-learning can render to the Palestinian educational milieu and at the same time to identify major obstacles that hinder the integration of e-learning into higher educational institutions in Palestine. The paper attempts to answer the following questions in order for it to achieve its objectives:

- To what extent do contemporary views of both traditional and non-traditional education diverge?
- What are the current and future trends in the global educational landscape?
- Is there a universal tendency for paradigm shift from teaching to learning?

- What are the main attributes and the common challenges to effective implementation of e-learning in general and in Palestine in particular?
- Is e-learning a viable educational alternative for everyone?
- Is there compatibility between means of delivery and assessment techniques that are employed to evaluate the performance of learners enrolled in e-learning programs?
- What can be done to preserve the credibility and to safeguard the integrity of the e-learning process?

The paper is organized into five main sections including this introduction. The second section broadly examines the traditional and non-traditional education environment, and considers various approaches to the teaching/learning process. It also pays particular attention to the current realities and predicted future trends pertaining to the educational process. The third section emphasizes the relevance and the importance of e-learning to the Palestinian educational system, it contemplates key attributes of online learning and examines main challenges facing the development and the implementation of an active e-learning environment in our universities. The aim is to create awareness and provoke intellectual debate among scholars regarding the introduction and subsequently the integration of e-learning into our institutions of higher education. The endeavour in the fourth section is to gain insight into the e-learning process by reviewing key components of the e-learning formula. Of particular interest are: course content and design, means of delivery, and assessment techniques. The final section concludes by restating that e-learning is not simply a trend, it is rather "the future of education" (Canning-Wilson, 2000) and the shift in paradigm towards virtual classrooms and cyber-learning is inevitable.

2. Traditional vs. Non-traditional Education:

Higher education is currently in the midst of major transformation that spans the entire educational process. It is evident that the direction of change is moving away from traditional education, and toward alternative non-traditional education.

2.1 Theoretical models of teaching/learning

Methods of teaching and learning can broadly be divided into traditional passive and non-traditional participatory methods. Along these lines, Kolitch and Dean (1999) proposed two theoretical models of teaching: *transmission and the engaged critical models.* The *transmission model* is based on the conventional view of knowledge as a set of facts and figures to be memorised and recalled for examination purposes. The transmission model is teacher-centric, wherein the instructor supposedly possesses

and/or produces knowledge and passes on information in person to the learner who is expected to digest and comprehend delivered information. Basic ingredients of this traditional teaching model are: the teacher; the classroom; and assessement by means of paper and pencil quizzes and exams.
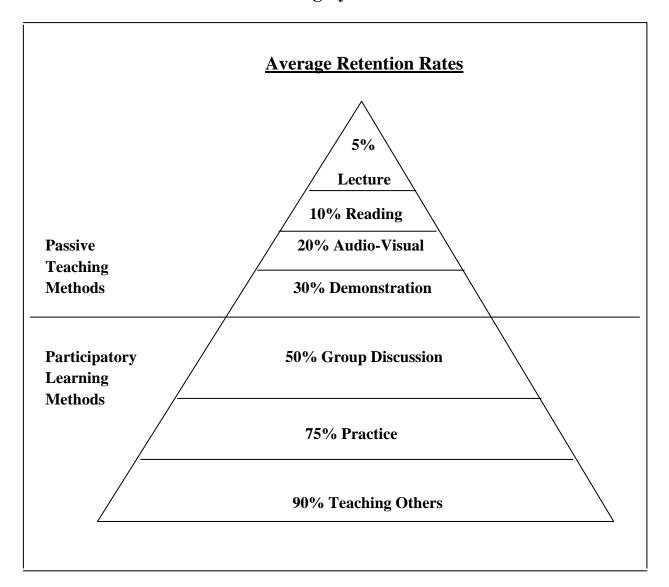
The second model is *the engaged critical model,* which is based on the premise that learning is "a process of knowledge construction and critical thinking" (Wilks, 2005), where both student and instructor participate in an active and creative discourse aimed at building dynamic partnership between both stakeholders. The objective is to create and subsequently assimilate customised knowledge through shared experiences. Unlike the transmission model, the critical model is learner-centric wherein the instructor is seen as a facilitator and the student as a partner who is actively engaged in building knowledge. Generated knowledge is delivered unconventionally through virtual classrooms, using assessments that align with this form of online learning.

Despite the fact that an increasing number of renowned universities and educational institutions are taking firm moves towards the promotion and implementation of on-line teaching and learning culture, Wilks (2005) explains that more time is still needed in order to eliminate the practices of traditional classroom teaching. He further maintains that achieving comprehensive integration of content and process to meaningfully engage students in the online education is still an academic endeavour.

The learning pyramid (figure – 1), developed in the early 1960s by the National Training Laboratories in Maine, offers an accurate interpretation of *the transmission* and *the engaged critical* models of teaching. The top component of the pyramid represents the traditional view of teaching where the instructor is doing most of, if not all, the work while students are passive listeners, readers, viewers and/or observers. A typical student retains generally 5% to 30% of given information - depending on the applied method of delivery. On the other hand, the bottom part of the pyramid preserves the perception that students are partners in the learning process rather than merely recipients of convenient information. Students are able and encouraged to raise questions, discuss ideas and experience by doing. Such a participatory learning model entices students to be actively engaged in developing and sharing knowledge, thus enabling them to achieve a much higher rate of retention. On the average, students comprehend and retain between 50% of shred information when they participate in group discussions and 90% if they assume responsibility and teach others (Palloff & Pratt, 2009).

Figure 1:

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The learning Pyramid

Average Retention Rates

Passive Teaching Methods

- 5%
- Lecture
- 10% Reading
- 20% Audio-Visual
- 30% Demonstration

Participatory Learning Methods

- 50% Group Discussion
- 75% Practice
- 90% Teaching Others

Source*: National Training Laboratories, Bethel, ME (1960, cited in Palloff & Pratt, 2009, p. 19)

Palloff and Pratt (2009, p. 18) point out that in addition to providing "information about the progression of activities that contribute to knowledge acquisition and retention", the activities of the lower levels of the pyramid can be used as effective and authentic assessments that contribute to the perpetuation of acquired knowledge. Instructors, therefore, need to focus their attention and efforts at the lower levels of the learning pyramid while designing course activities intended to increase knowledge retention rates and provide means for assessments that align with specific forms of teaching.

2.2 Current and future trends:

The University of London was the first university to offer distance-learning degrees, establishing its external program in 1858. Since then, the distance-learning voyage has come a long way. Universities and institutions of higher education are increasingly capitalizing on the rapid advancement in information technology, namely the Internet, to extend the scope and enhance the quality of their curricula.

Nearly 4 million students were participating in on-line learning at institutions of higher education in the fall of 2007 compared with about 3.5 million students during 2006. The need to bring education to the increasing number of education seekers indisputably will grow. The influx of future university students definitely will exert enormous pressure on available physical as well as human resources. Future students are most likely to have less time on hand to spend in classrooms without giving up job or family – as the need to pay for their education will force them to spend more time at the workplace. These factors, amongst many others, do not only justify, but also necessitate the search for an alternative to the traditional classroom face-to-face education.

Experts foresee a vivid future for e-learning as online education is rapidly presenting itself a viable alternative that offers courses cheaper and at times convenient to the learner. Canning-Wilson (2000) reported that authorities in the field predict that "over 50% of the student population will be educated using online learning and/or technology" within the next few decades. They further envisage that the average class size will be in excess of 1,000 students and "that these learners will be taught in virtual classroom by an expert in his or her field of knowledge" (Khaleej Times, 2000, cited in Canning-Wilson, 2000). As a natural outcome to the surge in demand for online learning, experts depict a gloomy future for traditional teaching and expect the job of the classroom teacher to be one of the top 5 jobs eliminated by the end of the 21st century (CERT Insert Page on On-Line Learning, 2000).

3. Alternative Education:

Non-traditional 'alternative' education denotes the process by which learning is conducted using means that are not limited to face-to-face classroom lecturing. Alternative education takes many forms: "credit for life experience, credit by examination, by independent study, through intensive courses, correspondence courses, learning by telephone, by exchange of tape cassettes, and much more" (Bear, 1981, p. 8).

Bear (1981), a strong advocate of non-traditional education, discussed three major problem areas with regard to traditional teaching and traditional degree programs and concluded that:

1. *There may be little connection between degrees earned traditionally, and on-the-job performance.*

2. *There is much evidence that a vast number of students are spending huge amounts of time being trained for jobs that simply do not exist.*

3. *It may well be that the cash investment in a traditional college education is extremely poor investment, (Bear, 1981, pp. 21-22).*

Traditional educational programs and methods of instruction based on face-to-face lecturing have also been criticized for their ineffectiveness in helping students to develop leadership skills and abilities (Bridges & Hallinger, 1997; Costello, Burnner, &Hasty, 2002; Palmer & Major, 2004). Ruhe and Zumbo (2009, p. 154) explain that in this new global environment, university graduates must have and master new skills such as "accessing information, selecting relevant information and incorporating pertain information into credible work documents", and remarked that face-to-face traditional education does not allow or encourage the achievement of such a developmental goal.

3.1 Non-traditional education[1]:

The internet revolution of the past two decades, have modernized education with online classes; real-time cameras; video conferencing; chat rooms; bulletin boards; smart board technologies; CD Rom software; Internet software; and interactive tools; web based screencasting bring the learner and the learning process to an even greater understanding and advantage than ever before in the history of education (Canning-Wilson, 2000).

Distance education and e-learning are the most frequently used terms to describe the non-traditional teaching/learning environment: Distance education is an inclusive term, broadly used to characterize the "physical separation of teachers and learners" (Schlosser & Simonson, 2006, p. 65). Zimbler (2000) contested the myth that distance education faculty members are advantaged by having a lighter teaching load than their counterparts who only teach face-to-face. Her research showed in addition to spending more time on designing and updating course materials, on the average a faculty teaching distance education classes has to deal with larger classes with all what that entails in terms of assessments and other administrative responsibilities.

E-learning, on the other hand, is a term used to describe the distinctiveness of an e-learning program delivered on-line or through the Internet. Some institutions of higher education have adopted on-line learning as the norm and employed traditional

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[1] E-learning is usually linked to distance and flexible learning, but can also be used in conjunction with face-to-face teaching, in which case the term 'blended learning' is largely used.

face-to-face teaching to complement e-learning. E-learning could be delivered using synchronous or asynchronous technologies. Synchronous online delivery is applied where all participants are available at the same time using instruments such as telephone, video, and Web conferencing. Synchronous activities involve the exchange of ideas and information with one or more participants during the same period of time. In contrast, asynchronous online delivery is more appropriate in situations where participants need to access course materials based on their own schedule at their convenience (time and space). Audio and videocassettes, voicemail/fax, electronic mail, blogs and discussion groups are the instruments and the means by which course materials can be delivered to students. Asynchronous activities therefore allow participants to engage in the exchange of ideas or information without having to be present at the same time (1424،المبارك هـ 1423 ،الموسى
؛هـ 1424 ،والحامد العويد ؛ هـ).

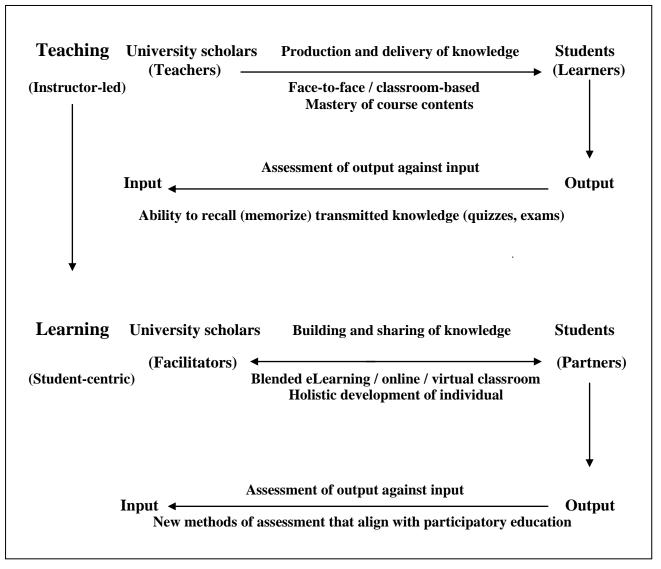## 3. 2 The shift from teaching to learning:

Teaching, by and large, is identified with the face-to-face delivery of available knowledge to students in a traditional classroom setting. The philosophical underpinnings of teaching is the awareness that there is a body of knowledge that students should understand if they are to be considered educated, and that students must have a solid grasp of foundation knowledge in order to absorb and digest new knowledge. Learning on the other hand is a participatory educational process based on the premise that learning should link intellectually stimulating content to real-world contexts and that learning experiences should "be true representations of life itself" (Peters, 1993, p. 57). This inclusive view of learning entails that students should be active partners in building and assimilating knowledge (figure – 2). Learning therefore puts more emphasis on developing creative thinking mindset amongst students in order to enable them think independently and prepare them to use shared knowledge in a constructive manner.

As figure – 2 indicates, the shift from 'instructor-led' teaching to 'Student-centric' learning approach leads to a fundamental change in learning methodologies, modes of delivery and assessments practices. Universities therefore are to rethink their methods of teaching and reassess the adequacy of their infrastructure and its ability to cope with such a profound shift in the teaching/learning environment, and to ensure the implementation of management structure that is capable of supporting the progression of reform activities.

Teaching approach presumes that the university lecturer is at the core of the teaching process; the lecturer is the expert and the authority that possesses the knowledge and the information needed to be passed face-to-face to the students who are passive learners. Students are assessed on their ability to memorize transmitted knowledge and prove their ability to recall such information through scoring high in a range of quizzes and exams. The learning approach on the other hand suggests that the students should take charge of their studies and form partnership with their lectures

Figure 2:

The shift from teaching to learning

Teaching   **University scholars**   **Production and delivery of knowledge**   **Students**
                (Teachers)   **(Learners)**

(Instructor-led)   **Face-to-face / classroom-based**
                               Mastery of course contents

                            Assessment of output against input

Input   **Output**

Ability to recall (memorize) transmitted knowledge (quizzes, exams)

Learning   **University scholars**   **Building and sharing of knowledge**   **Students**

                  (Facilitators)   **(Partners)**

(Student-centric)   **Blended eLearning / online / virtual classroom**
                             Holistic development of individual

                            Assessment of output against input

Input   **Output**

New methods of assessment that align with participatory education

3.3 Attributes of e- learning:

Literature is laden with arguments and discussions that largely embrace affirmative view of distance education and offer strong endorsements for e-learning. The primary objective of utilizing e-learning is to enhance the quality of the learning process and to transform the learning experience of students from being passive recipients of knowledge to that of being active partners in building knowledge. E-learning therefore is being challenged to "demonstrate that there are other, better, more productive, more self-satisfying, more cost-effective, and more efficient ways of enduring the educational experience". In addition to offering courses cheaper and more convenient to the learner (الكعود و دركزني، 2010), e-learning is potentially capable of providing a range of significant benefits for its users and stakeholders among (قواسمه وشماء، 2007) which, are the following:

- **Convenience and flexibility:** e-learning enables learners to overcome the time and space constrains, thus make better utilization of time and space bonds. Learners are neither constrained by a specific time nore restricted to a certain place in order to physically attend classes. Alternatively, they can pursue learning sessions at time and place most convenient for them without compromising the educational quality or rigor.

- **Accessibility:** talented and highly competent instructors can share their knowledge across borders, allowing students to attend courses across physical, political, and economic divides. Recognized experts in their respective fields have the opportunity of making information and course materials available internationally to interested individuals at minimum costs 24 hours a day, 7 days a week.

- **Effectiveness:** e-learning can also be used to complement traditional education (Blended e-Learning) thus enhances and enriches the teaching experience (Matheos, Rogoza, & Hamayil (2009). Furthermore, the use of the internet for information research and communication with other students and faculty provides valuable experience with technology skills critical to business in the digital age (الموسى،423 1 هـ)

- **Increased interaction and improved performance:** interaction with other learners and the sharing of information and perspectives promote reflective thinking. Research has shown that students' interaction with their peers and instructors can yield a positive impact on learning. The online environment can also help students do well in their studies through regular participation in the discussion groups which helps increase motivation for completing requisite readings and assignments in a timely manner. Moreover, increased exposure to the material is most likely to increase retention (Itmazi & Tmeizeh, 2008).

Furthermore, the findings of a recent research conducted by the U.S. Department of Education found that higher education students in online learning environments generally performed better than those in face-to-face courses (Means, *et al.,* 2009). It is also observed that e-learners are generally more inclined to select courses that are relevant to their needs, thus are more motivated to complete their programs of study.

3.4 Challenges and issues of concern:

Discussions and arguments thus far have been centered on the need for a shift in focus towards e-learning by accentuating the many positive returns that e-learning is expected to bring about. However, it is crucial to present an objective analysis of the issue under investigation in order for the discussions to gain credibility. The endeavour to implement an e-learning environment is often faced with many challenges and impediments.

- The issue of capacity building is one of the main challenges faced by the majority of countries aiming at integrating e-learning into their institutions of higher education. Developing and designing effective e-course is a demanding undertaking as it requires in addition to the skills and competencies of the instructor, his/her dedication and generous investment in time and energy (Mitchell, Basiel, & Commins, 2006; 2009،الأحمر).

  Critics believe that the apparent lack of interaction and the absence of face-to-face contact (eye contact, body language and voice tone) between instructors and their students in an online learning environment runs the risk of disadvantaging students and depriving them from direct interpersonal relationships with their instructors/tutors (Bourner & Flowers, 1997; Cooper, 1999; Palloff & Pratt, 1999; Lakie, 2005; 2010،اطميزي). Furthermore, critics voiced their concern that extramural students are not receiving equivalent instructions to their internal peers and cannot hear questions and discussions at the time of lecture delivery, thus they are experiencing a less than ideal learning environment (Londrie, 2008).

- Having access to the Internet is a basic stipulation that must be met in order for students to effectively engage in e-learning. Students without adequate and proper access to the Internet are certainly disadvantaged and their course work is most likely to endure the negative implications due to the inability to access the Internet.

- The availability of cheap, customised assignments raises ethical concerns, which could consequently undervalue the education system and compromise its integrity if these services are left without proper regulatory control. This genuine concern about the authenticity and originality of students' work will be pondered in more details in section 4.3

- The volume, the quality and the relevance of available information on the net are of a major concern to online learners. The unregulated and uncontrolled access to the Internet where anyone with basic knowledge of know-how can publish unfiltered and unsubstantiated information amounts to be a major problem that requires the attention and the collective collaboration of all stakeholders. The excessive amount of posted information on the Internet often works against the interest of e-learners and researchers as locating relevant and reliable information becomes more difficult. Instructors therefore are urged to set the standards and to emphasise to their students in unambiguous and uncompromising terms that only high quality references such as preferred journals, books and trusted Web sites are accepted.

- There is always the risk of shift in focus from the aim of building and delivering rich and quality knowledge to the emphasis on maximising the number of enrolled students in order for universities and other institutions of higher education to optimise their financial return (Weigel, 2000).

- Brabazon (2002), amongst other scholars, drew attention to potential difficulties while venturing to accommodate certain courses within an e-learning program, especially natural sciences courses where lab hours are required. However, the fact that e-learning is more appropriate for some academic disciplines than others does not undermine its significance as an empowering instrument that enable students to benefit from the versatile engagement with the concepts, interpretations, and theories of their field.

Needless to say that instructors and staff members need to have comprehensive understanding of the content of their courses and be highly skilled in the use of advanced computer applications that relate to educational technology. Furthermore, educators regardless of their whereabouts will need to "be more aware of the theoretical and practical aspects of teaching … [and] to build further awareness of how teaching methodologies, learning strategies, and learning may be altered based on this new medium of online education" (Canning-Wilson, 2000).

3.5 Is e-learning a viable option for everyone?

Despite the widespread appreciation of the valuable attributes of e-learning, and its great potential in reforming the conceptual and the practical aspects of the educational process, some intellectuals have raised genuine questions regarding the universal suitability of e-learning and whether it is a credible option for everyone.

The underlying assumption of the vast majority of e-learning literature is that students have to be active learners and assume responsibility for their own learning. Knight (1996) argues that students can no longer be passive about their learning, and maintains that e-learning will be of a great benefit to both students who belong to the

conventional and non-conventional school of learning; evidently, active learners will be greatly advantaged by the technological augmentations and improvement in infrastructure that an e-learning environment is likely to bring-about. On the other hand, students who are used to being given knowledge as a set of facts and figures and later tested in view of that will soon realize that this new learning environment offers no place for passive learners. Thus, they would be encouraged to adapt and benefit from the many opportunities made available by the online learning environment.

Michailidou and Economides (2003), keen advocates of e-learning, maintain that the development of a virtual learning environment would motivate students to participate in the educational process. Virtual learning provides "an active, independent, student centred and tutor facilitated engagement, which enables communication with other students and tutors" – a feature that is unlikely to be manifested within the traditional classroom setting.

While Hawkes and Cambre (2000) endorsed this view and explained that in order to gain results, students must take responsibility for their own learning, Kershaw (1996) did not totally agree with this analysis. He pointed out that not all students will intuitively become attentive, conscientious, self-motivated individuals and that "success in fact depends on the level of interaction between students and lecturers that is required to stimulate good results". Likewise, Brabazon (2002:142) examined students' ability to adequately learn online, and pointed out that "many students require a higher level of discipline" than provided by the online learning environment.

Cooper (1999) pointed out that students' perception and response to e-learning are not homogeneous and diverge according to each student's skills and abilities to study independently. Therefore, it is crucial for universities and institutions of higher education to be aware of the differences in students' reaction to the changing paradigm of learning while designing their courses in order to account for the diversity in learning styles (الموسى، 1423 ه)

3.6 E- learning in Palestinian universities:

The rationale for incorporating e-learning into the Palestinian higher education is compelling. It has been argued that in addition to the common attributes of e-learning discussed earlier in section 3.3, the implementation of a comprehensive e-learning program in Palestinian universities provides a practical solution to the many challenges facing the educational movement in the country: travel restrictions, arbitrary curfews, indiscriminate checkpoints and frequent closures make movement between and within the West Bank, Jerusalem and the Gaza Strip extremely difficult and consequently "limit both staff and student mobility and lead to disruption of courses" (Mitchell, Basiel, & Commins, 2006). In such a volatile environment where

students are often prevented from reaching their universities and attending their classes, e-learning becomes a necessity and not an option. Furthermore, the increasing numbers of high school graduates who qualify and seek to pursue their university education are faced with lack of facilities and inadequate infrastructure which limit the intake capabilities of Palestinian universities and reduce their ability to absorb larger numbers of students (إطميزي،2010). This is contrary-to the expectations that the worsening economic condition in the Palestinian territories, evidenced by higher rates of unemployment estimated at 44%-74% (WB, 2006), would have adverse impact on the aggregate number of students pursuing university education in general.

Realizing the role of e-learning and its relevance to the Palestinian educational circumstances prompted several Palestinian universities to shift their focus towards e-learning. Alquds Open University (QOU), by and large, is the largest provider of higher education in Palestine where it serves more than 60,000 students comprising just over 40% of the undergraduate students in Palestine (MoEHE, 2007; 2008; Matheos, Rogoza, & Hamayil, 2009). QOU teaching/learning approach is based on a traditional correspondence model complemented with face-to-face lectures. However, the university is acting upon the recommendations of a comprehensive evaluation funded by the World Bank and the European Union to integrate distance, open, and e-learning into its teaching/learning program "aimed at moving from a correspondence model to a blended learning environment" (Matheos, MacDonald, McLean, Luterbach, Baidoun, & Nakashhian, 2007).

Other Palestinian universities implemented a variety of teaching/learning approaches ranging from face-to face and traditional correspondence methods of teaching to distance and e-learning methods of learning. However, a recent study conducted by Itmazi and Tmeizeh (2008) to explore the experiences of the main Traditional Palestinian Universities (TPU)[2] has concluded that "there is not any evidence about any use of BeLA at the academic programs in TPUs to offer some e-Courses".

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[2] Traditional Palestinian Universities (TPU) are:
1. Al-Quds University (QU), www.alquds.edu,
2. Palestine Polytechnic University (PPU), www.ppu.edu
3. Islamic University of Gaza (IUG), www.iugaza.edu.ps
4. Birzeit University (BZU), www.birzeit.edu
5. An-Najah National University (NNU), www.najah.edu
6. Hebron University (HU), www.hebron.edu
7. Arab American University, Jenin (AAUJ), www.aauj.edu
 8. Bethlehem University (BU), www.bethlehem.edu
9. Al-Azhar University of Gaza, www.alazhar.edu.ps
10. Palestine Technical University (PTU), www. ptu.edumoot.com

The endeavours to develop and implement e-learning programs at the Palestinian universities and institutions of higher education are still bounded with various barriers and obstructions. A large segment of Palestinian educators and students alike are still cautious in their approach to e-learning education. This is evidenced by their resistance to change and reluctance to attempt new teaching/learning methodologies that do not align with a traditional classroom setting. Forming a partnership type of relationship between lecturers and their students wherein students take an active role in the learning process is not a common practice at our universities. Other barriers to the integration of e-learning into higher education in Palestine include:

- Palestinian universities lack proper infrastructure, financial resources and human capital needed to integrate e-learning into their teaching/learning programmes (Mitchell, Basiel, & Commins, 2006; WB, 2006).

- Palestinian universities, by-and-large, resemble larger traditional high schools where students are expected to attend lectures and be tested accordingly to assess their recollection of transmitted information. Students enrolled in e-learning courses at some Palestinian universities are arguably disadvantaged compared with both attending traditional institutions and those pursuing on-line learning at renowned institutions of higher education: they neither have the advantages of face-to-face education nor the benefits and advantages attributed to e-learning.

- The conventional wisdom being entrenched in the Palestinian educational culture that university education is a point in time suitable mainly for the 18 - 24 years old traditional students, who see in university education merely a passport for employment, does not help the cause of e-learning. Adult employed students, on the other hand, are the ones most likely to utilize the conveniences of e-learning without having to give up their jobs. Excluding this group of population from the educational process undoubtedly will limit the scope of e-learning. Having an adequate and proper access to the Internet, which is a condition for engaging in e-learning activities, is another hurdle in the way of disseminating an online learning culture throughout the Palestinian institutions of higher education. The frequent power cuts that Palestinian households, businesses and educational institutions are often subjected to do not advance the case of e-learning-based educational system.

- A recent survey conducted by the Palestinian Central Bureau of Statistics (PCBS, 2009) revealed that while 51.1% of households in the West Bank have computers, only 27.2% of the households have access to the Internet. Findings also show that 32.7% of individuals aged 10 years and over use the Internet. These results are comparable with findings of Gaza household survey. The rate of households in Gaza that have computers is 45.6% and 30.9% of the households have access to Internet. Findings indicate that 31.5% of individuals aged 10 years and over use the Internet. These statistics are comparable with the 28.3% of the Middle East population having access to the Internet. However, a preliminary comparison with the world Internet usage statistics reveals that

these figures are far below than those of developed and other developing countries; Europe at 50%, North America at 74.2%, and Oceania / Australia at 60.4% (World Internet Usage Statistics, 2009)[3].

Needless to say that these obstacles are by no means to undermine the significance of e-learning or to weaken the resolve to establish an e-learning culture and integrate e-learning into higher education in Palestinian universities.

4. Key Dimensions of E-Learning[4]:

The main challenge of a theoretical e-learning framework is "how to design educational systems where technology is in service to values and supports diverse learners and learning contexts" (McCombs& Vakili, 2005, p. 1583) and to provide a resource base that drives and supports effective practice and flexible learning.

4.1 Online course design:

Designing any course depends primarily on the program, the teacher, the quality and standards of the course offered, and the technology being used. Pallof and Pratt (2009) explain that a good course design begins by answering crucial questions regarding the purpose of the course and analysing the needs and capabilities of the audience that the course is intended to serve. The basic components that comprise any course design are referred to as the objectives, outcomes and competencies:

- Objectives: What students will *learn*, generally at the end of a unit of study

- Outcomes: What students will be able to *know or do*, generally at the end of a course

- Competencies: How students *demonstrate knowledge or skills acquisition,* generally at the end of a program of study (Pallof & Pratt, 2009, p. 6).

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[3] For more comprehensive information on the world Internet usage statistics, please visit: www.internetworldstats.com/stats.htm

[4] This section draws heavily on the work of Palloff & Pratt (2009), and the practical experience of the author of this paper with e-learning while teaching at the College of Business at Massey University, New Zealand.

A good course design also aligns competencies with outcomes and subsequently with measures of assessments regardless of the mode of delivery being face-to-face, online, or a combination of both methods (Buzzetto-More & Alade, 2006).

However, the design of a coherent e-course that meets high standards and results in a high level of student engagement and participation is key concern that must be methodically addressed. E-course content should include a variety of contemporary learning resources that are well integrated with other course materials. Contents must be professional, neutral and communicative to accommodate learners from diverse cultures and various backgrounds (Canning-Wilson, 2000). Furthermore, online instructors and facilitators must ensure that they have the basic technical knowledge, technical support and technical requirements crucial to hosting an online course (Itmazi, 2010).

4.2 Effective delivery:

How to effectively communicate and deliver online course content to respective audience is equally important as the design phase itself. WebCT and Moodle are two sources of e-learning that largely dominate the online learning landscape[5].

WebCT (Web Course Tools) is a web-based course management system that provides an integrated set of tools for both developing and delivering courses online. WebCT was originally developed at the University of British Columbia in 1995 with the aim of advancing student academic performance through the use of web-based learning environments. The product is sold to universities and other institutions and used in many campuses for e-learning. Instructors can add discussion boards, mail systems and live chat, along with content including documents and web pages to their WebCT courses. Any student that has an Internet connection at home or elsewhere, can access the WebCT site for the course he/she is enrolled in - at any time. In 2002, over 10 million students in 80 countries used WebCT. The latest versions of this software are now called Webcourses (Wikipedia, the Free Encyclopedia).Since the creation of the WebCT, the world's first widely successful

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[5] For more on WebCT and Moddle, visit www.en.wikipedia.org/wiki/E-learning and www.en.wikipedia.org/wiki/Distance_education

course management system for higher education in 1995, a large number of competitors have emerged such as: ANGEL LMS, Atutor, Blackboard, Claroline, Desire2Learn, University junction, and most notably Moodle.

WebCT has been criticized as being difficult to use – a criticism somewhat reflected the flexibility of the system. While other systems present a single way of organizing or adding course material, WebCT offered several options with more of the structure left to the individual instructor. The flexibility of the product did not offset the inconveniences of not being user friendly. Among other shortcomings, WebCT is being viewed as an expensive commercial product. Furthermore, the new version released in 2008 requires active users to purchase new licence and calls for significant changes to the existing version (Wikipedia, the Free Encyclopedia). These factors coupled with the attractiveness of Moodle prompted Massey University, which has been using WebCT as a framework for integrating its internal and distance teaching, to opt for change to Moodle.

Moodle (An acronym for Modular Object-Oriented Dynamic Learning Environment) is free and open-source online learning software. Moodle is an Open Source Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). The software is used by universities and other educational institutions as well as in the business sector all over the world. As of April 2011, Moodle has over 41 million users in more than 4 million courses in 213 countries and supports more than 75 languages (Moodle Statistics, 2011).

The educational community capitalise on the many capabilities and attributes of Moodle software package to produce Internet-based courses and web sites. It has become very popular among educators around the world as a tool for creating online dynamic web sites for their students. The focus of the Moodle project is to provide educators with practical yet easy to use tools to manage and promote learning.

The many positive features of Moodle enable users to use the systems in various ways and in different situations:

- Moodle can be used as a platform to conduct fully online courses, or simply to complement face-to-face courses (known as blended learning).

- While Moodle can be used in organizations that account for hundreds of thousands of students, a single user also can use the system.

- In addition to using Moodle as a means to deliver course content to students and assess learning using assignments and quizzes, Moodle can also be used to bring together individuals and groups with similar interests around their subject matter.

Moodle also has import features for use with other specific systems, such as importing quizzes or entire courses from Blackboard or WebCT (Wikipedia, the Free Encyclopaedia). Massey University has changed Moodle's name to "Stream" to better reflect the university vision and aspirations for online learning.

4.3 Adequate and proper assessment techniques:

For assessment to be effective and inclusive, it must be embedded in and aligned with the design of the course (Angelo & Cross, 1993). Donnelly and McSweeney (2008) emphasised the fact that assessment is only one component of the overall curriculum; to be effective, good assessment techniques must fit the context and be aligned with the course aims and learning objectives. "An individual question is never inherently good, but only of high quality appropriately set within a well-planned curriculum" (Ibid).

4.3.1 Issues of concern:

Serious considerations must be given to the assessment methods to be implemented before hosting an on-line academic course. Issues of genuine concern to the assessment process include: form of assessment, academic honesty and test security.

The appropriateness of traditional assessment methods to the online learning classes is being questioned. Tests and quizzes have traditionally been used for assessing student performance in face-to-face traditional teaching environment. However, these forms of assessment on their own are deemed inadequate and inappropriate to assess learner performance in an online learning environment because they do not reflect the true capabilities of online students.

Academic honesty is another genuine concern that on online course designers and practitioners alike must address. Concerns about the increased potential of cheating since the instructors have no control over the test setting, thus are not able to monitor students taking tests (Palloff & Pratt, 2009). Unlike the traditional classroom setting, where the teachers have physical presence amongst their students and can monitor them taking the exam, the on-line classroom does not offer such trait. There is no absolute assurance that the enrolled student is actually the one who is completing the work. Moreover, there is always the possibility that students intentionally or unintentionally will plagiarise by not giving credit for using others' work (words and/or ideas).

4.3.2 Safeguarding the integrity of e-learning:

When designing the course, online teachers must devise further safeguards into the materials and tests in order to maintain the credibility of online courses and preserve the integrity of the educational institutions and the trustworthiness in their degrees and certifications. The following propositions are potentially capable of providing practical measures to safeguard against possible shortfalls in the assessment process of online courses.

- The use of multiple techniques of assessment: McVay (2002) argued that the use of multiple means of assessment is a distinguishing feature of good pedagogy, and suggested the use of multiple measures of assessment to ensure that the results of the course work are a true reflection of the capabilities and perceptions of the online students. Palloff & Pratt (2009, p. 40) endorsed this view and maintained that "a variety of assessment techniques should be employed to effectively assess student performance online". Giving higher weight to controlled (protected) final exams, when using multiple means of assessment, is likely to reduce the possibility of cheating, and to minimise the damage should cheating occur.

- The design of online exams, with the view that these exams are take-home exams, where students are able to use books and other resources to complete the exam. The rationale underlying this approach is that students will be tested for knowledge and not for a recollection of information that they have merely memorised, thus forcing them to research the subject and prove they have done the work. Major and Taylor (2003, cited in Palloff & Pratt, 2009, p. 42) argue that in real-life students will be challenged to apply what they have learned rather than to reproduce the knowledge that they studied at university.

- The use of specialized software specifically designed to detect plagiarism such as My Drop Box, Plagiarism and Turnitin[6] software. Turnitin is being utilized effectively by Massey University – New Zealand to discover plagiarism. It is important to note that plagiarism is not limited to online learning, it also occurs in face-to-face classes.

- The arrangement for controlled exam sitting where final exams are held at a common location or at the university campus in order for professors to directly supervise the exams. Special arrangements for supervised final exams can be made to enable students located in different countries to sit the exam at various centres around the world such as embassies and educational institutions.

5. Conclusions and Implications:

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[6] Turnitin: Online plagiarism-detection systems, checks the essays for dubious amounts of copying by comparing it to its massive database of submitted essays and scouring the Internet. A custom, colour-coded originality report (similarity index) is created, with source links, for each paper. Turnitin is an effective tool for i) detection (Hard evidence), ii) deterrence, and iii) teaching.

9Interpreting the report needs an academic eye to ascertain what has been fairly used and what has been either over quoted or deliberately borrowed without acknowledgment.

Literature suggests that the traditional means of education and assessment will soon be something of the past as distance learning and online courses become more available to students at minimal cost and at their own convenience.

This paper emphasised the need to adopt a holistic approach to integrating e-learning in university education by means of the amalgamation of academic rigor and state-of-the-art technology. The aim is to develop competent individuals capable of facing contemporary and emerging issues and to anticipate and assertively respond to imminent challenges without being manipulated or influenced by critics and/or external forces. The paper maintained that the shift towards e-learning is a firm stride towards the realization of such a developmental ambition.

While the paper has contemplated the attributes of e-learning and its potential to enhance and support the traditional learning system, it also took stock of the challenges and the concerns that must be accounted for throughout the process of devising and implementing inclusive e-learning programs. It specifically addressed core dimensions critical to the success of any online educational framework such as course content and design, delivery and assessment and raised questions as to why the phenomenal e-learning culture is yet to take place in our universities and institutions of higher education.

The paper reiterated that in order for an educational institution to survive and have a presence, it must meet the challenge by integrating online learning within its curriculum. The achievement of such an aim requires the collective collaboration of all stakeholders in order to create a conducive environment that enables the conception and the development of an e-learning culture in Palestinian universities and institutions of higher education.

However, in the meantime, Palestinian universities are encouraged to embark on a practical Blended eLearning approach (BeLA) that combines the best of traditional, face-to-face, methods of teaching and the numerous benefits of online Learning. By doing so, Palestinian universities can overcome some of the acute obstacles imposed by the Israeli occupation, and solve some of visible infrastructural problems such as lack of competent human capital and shortage in financial resources. Furthermore, the gradual integration of both traditional and nontraditional educational systems provides Palestinian universities with invaluable experiences that enables them to easily make the shift towards e-learning - when it is time to do so.

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