"ASSESSING THE WEB-BASED LEARNING BEHAVIOR OF INDIAN STUDENTS: A STUDY UTILIZING THE TECHNOLOGY ACCEPTANCE"

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Abstract

In the presence of great social diversity in India, it is difficult to change the social background of students, parents and their economic conditions. Therefore, the only option left for us is to provide uniform or standardize teaching learning resources or methods. For high quality education throughout India there must be some nation-wide network, which provides equal quality education to all students, including the student from the rural areas and villages. The one and only simple solution to this is Web Based e-Learning. In this paper we try to give some innovative ideas to spread the Web Based e-Learning (WBeL) concept in to the minds of young India along with various approaches taken or to be taken, associated to it till date beside Web-based learning there is often referred to as online learning or e-learning; Because of this online course content Includes. Debating forums are all possible through the Internet Email, video conferencing and live lectures via (video streaming). Internet Basic Courses Fixed as printed course materials Pages can also be provided. Using the Internet to access course material one of the values is that Webpages Hyperlinks to other areas of May contain Internet so that a wide range of web-based information can be accessed.

Keywords: Web based learning, instructional design model.

INTRODUCTION

India is a country of millions of youth minds, seeking knowledge to move ahead in contrary to their limit. This time is important for India to get prepare for the future hence requiring education in full fledge. Though, we have many schools, enough teachers and facilities for students and teachers. But the great variation in the quality of education is found due to some factors like social background of students, parents, different standards of teacher training programs, all teachers cannot deliver the same message to all learners. This fetches the need of WBeL—Web Based e-Learning.

The term Web Based e-Learning (WBeL) is proposed in this paper because it means its inner meaning for Web or World Wide Web—which is an easy media to convey data world-wide very smoothly, B for Based upon W media, e for electronic systems embedded with the W, while L for Learn some data or facts available in the W media Based electronic systems.

As we know that Internet is the ocean of knowledge, therefore it is better to open (introduce) this ocean to all students as early as possible in their life. This can be done by introducing or using Information Technology (IT) and related tools in school education or by using World Wide Web (WWW) as education delivery medium. The

WWW is used not only to disseminate information but it also provides a great opportunity to extend learning outside space and time boundaries.

The Web Based Education / Learning has the potential to meet the perceived need for flexible pace, place and face. The web allows education to go to the learner rather than the learner to their education. As per as India is concerned there are many problems that one will face to use IT in education like funds, infrastructure etc.

The modules are approximately one hour session that focuses on specific subject of training. Using WBeL the training can be brought right to your desktop. This makes technical training more convenient. During the live WBeL module, participants will have the ability to ask the instructor questions, get answers and interact with other students — all on line.

In this paper, we have discussed various innovative methods and challenges according to WBeL in India. In what follows, section 2 presents Indian approaches taken or to be taken on behalf of WBeL. Section 3 presents two new models faced by WBeL to be implied in India. Section 4 presents various instructional design models. Section 5 tells about online learning course development models. Section 6 gives the idea of the impact of technical writing in Wyble. Section 7 presents different advantages and disadvantages of WBeL. Section 8 concludes this paper.

Approaches taken and to be taken

India has a strong educational infrastructure, particularly in the higher education sector with more than 13, 500 colleges and above 250 universities. To cope up with these huge increasing number of education systems we require a strong WBeL system indeed. This section presents the scenario behind this system as already existing and for the near future thoughts has and will be implied on India, respectively.

Present scenario

In this portion of paper, we present some approaches already taken in account of establishment of WBeL in India so far.

Edusat: -

From the use of satellite in the early 1970s to the present interest in a dedicated SATellite for Education (EDUSAT) India has considered education as a primary force for development of the nation. This project has got tremendous success in India during last few years to motivate Indian conventional education to a new era of Hi-Tech education.

Netvarsity: -

The country first online educational enterprise also came with the private initiative, when the National Institute of Information Technology (NIIT Limited) started Netvarsity in 1996.

Teaching shoppe: -

After what NIIT started in 90s some other private farms came in to the market with a new concept to open up Teaching shoppe (TShopee) for the benefit in the field of school level education and for preparing students for competitive examinations like the medical and engineering entrance tests.

NTFITSD: -

After what NIIT started in 90s some other private farms came in to the market with a new concept to open up the real impetus for e-learning came from the National Task Force on Information Technology and Software Development (NTFITSD) constituted by the Prime Minister of India in 1998. The Task Force report presents the master plan that India has in place as a long-term policy for capacity building of institutions, human resource development in IT related areas, and use of ICTs in education.

VCI: -

The Indira Gandhi National Open University (IGNOU) responded to the recommendations of the Task Force with its Virtual Campus Initiatives (VCI) in 1999. Since then a number of such initiatives (Table-1) are in operation in the country.

Instructional design models for WBeL

At the root of Instructional Design and/or Instructional Design Models, is a systematic process that Instructional Designers should follow in order to achieve the creation of efficient and effective instruction. Or more simply put, Instructional Design (ID) is a framework for learning. This framework asks the Instructional Designer to assess the desired outcomes of the learning and begin to apply an ID model that is most appropriate to assist in achievement of these desired outcomes. Despite some ID models being quite generic in nature, they are incredibly popular and capable because they present a very effective, yet general, model to build various types of instruction to meet different objectives in learning.

Below we will see a variety of popular models listed. These items do not attempt to outline the specifics of any Instructional Design model, but rather serve to convey the variety and possible application of these models to your specific instructional task. As you may notice, or soon come to learn, most of these models can be modified to meet your specific needs. Their systematic frameworks allow you to borrow from their strengths and retrofit several models to meet your differing needs.

On line learning course development models

The choice of a particular approach to the development of an online-learning course is based on several factors including the academic tradition and resources available to the organization. Institutions that are dedicated to online and distance education have tended to adopt a more collaborative course team approach. Conventional campus-based educational providers, on the other hand have tended to adopt a lesser collaborative approach. In any event, the development of an online-learning course comprises a new experience for many. It calls for new skills such as in e- moderation and some de-skilling as well (i.e., shedding off of old lecturing habits). Old habits die hard, and when faced with circumstances that render some of ones previous experience irrelevant there is quite a lot of uneasiness, loss of confidence, disillusionment, hostility, and at times ithdrawal from the activity altogether.

Wrap around model

This model of online-learning relies on study materials, which may comprise online study guides, activities and discussion wrapped around existing previously published resources such as textbooks or CD-ROMs etc. This model represents a resource-based approach to learning, as it seeks to use existing material that is relatively unchanging and is already available online of offline. Such courses, once they are developed, can be taught or tutored by persons other than the course developers. Collaborative learning activities in the form of group work, discussion among peers, and online assessments may be supported by computer conferencing, or mailing lists. Unfortunately, quite often, these online learning elements tend to be added to the course and do not form an integral part of the assessment requirements of the course.

The integrated mode

This model is closest to a full online-learning course. Such courses are often offered via a comprehensive learning management system. They comprise availability of much of the subject matter in electronic format, opportunities for computer conferencing, small group-based collaborative online learning activities, and online assessment of learning outcomes. For the moment though, some of the subject matter content will be bestaccessed offline in already published textbooks and other sources. The learning and teaching in these courses takes place in the computer conferences, in which the prescribed readings and the assigned tasks are discussed. Much of this learning and teaching activity is fairly fluid and dynamic as it is largely determined by individual and group activities in the course. To some extent, this integrated model dissolves the distinctions between teaching and learning in favor of the facilitation of learning.

The role of technical writing in e-learning

Many companies today are looking for the most cost-effective way to train their employees. By utilizing elearning, companies save money by lessening employee travel expenses and limiting employee time away from work. Computer-Based Training (CBT) and Web-Based Training (WBT) are two solutions. CBT training traditionally involves use of a CDROM; in many cases online help is directly available with this approach. WBT is training delivered via the Internet.

With the development of e-learning technologies technical writers have become more in demand. They have an increasing role in the design, development and implementation of training. It is vital for a technical writer to have good writing skills, but equally important, they must have the ability to produce, test, and implement their materials using sophisticated software.

Ever since the concept of schools and classes was adopted by communities to facilitate education, the tradition of face-to-face interaction has prevailed. A classroom with one or more teachers and students, with both groups meeting physically and synchronously in real time, has been the common practice. However, with the advent of computer technology and the Internet, the traditional setup of learning is evolving into a form mostly referred to as "e-learning." E-learning is the term given to a kind of instruction and learning system in which the students and the teacher, or whoever is involved in the interchange of information, do not meet physically,but rather are separated by time, distance, or both. This separation is bridged with the help of communication technology, including the Internet and emergent educational technologies. E-learning may or may not be in real time. A more formal definition of elearning is "the delivery of a learning, training or education program by electronic

means. E-learning involves the use of a computer or electronic device—in some way to provide training, educational or learning material" (M. M. Maneschijn.

This paper reports on an assessment of the learning of e-learning systems used in two universities in the Kingdom of Saudi Arabia (KSA). The framework used for this study is the IS Success/Impact Measurement framework pioneered by DeLone and McLean (1992) and later extended by Gable, Sedera, and Chan (2008). Based on the adaptation of this framework to the e-learning area, the assessment criteria include depth of learning, pace of learning, student productivity, and student satisfaction. The significance of this work is that itprovides a new form of system evaluation based on empirically derived evidence, which will guide the next phase of evolutionary development.

Saudi Arabia was chosen as the site for this research because it is one of the fastest-growing countries in the world in terms of e-learning (CITC, 2010) and it has unique educational opportunities based on its particular cultural operating environment. Moreover, CITC data show explosive growth in the number of Internet users in the KSA, from a mere 200,000 in 2000 to 4.8 million in 2006. The number of students enrolled in institutions of higher education has also increased significantly in recent years (CITC, 2010). As a result, many of these institutions have turned to e-learning systems as a means to broaden and enhance student access to their courses and subjects.

Reflecting this trend, a growing number of studies have been conducted on e-learning in KSA. Many of these studies have focused on identifying the key factors that differentiate online education from face-to-face learning, analysing the in-principle advantages and disadvantages of online courses or developing strategies to achieve a suitable online learning environment (Alshehri, 2005). To date, however, little attention has been paid to the issue of assessing the existing e-learning environments that have been set up in the country. Indeed, relatively little research has been done regarding the evaluation of e-Learning systems in general (Aceto, et al., 2007; Wang, Wang, &Shee, 2007). Responding to this gap in the literature, this paper relatesthe results of a qualitative study on the impact of elearning systems on student experiences of learning in two different Saudi universities. The next section of this paper provides a review of the literature related to e-learning and specifically to e-learning systems in Saudi Arabia, as well as to the IS Measurement Model (Gable, Sedera, & Chan, 2008). This is followed by a description of the methodology adopted for this study and then an analysis and discussion of the data are provided. Finally, the paper concludes by summarising the outcomes of the study and theirimplications for the impact of e-learning system on learners in the Saudi context.

Consideration of the IS-Impact Measurement model

An e-learning system is one of the many types of Information System (IS) (Wang et al., 2007). In the context of e-learning and e-learning systems, there have been a number of studies on the effectiveness of web-based learning compared to traditional classroom learning (Zhang & Nunamaker, 2003). However, there has been little research carried out on the evaluation of e-learning systems themselves or their effectiveness.

In order to assess the effectiveness of e-learning systems in use in two universities in the KSA, the IS-Impact Measurement model (DeLone& McLean, 1992) was selected because it takes into account the success of educational systems by measuring multiple dimensions of the information system (Cao & Elias, 2009). Importantly, the IS-Impact Measurement model does not involve any financial considerations of information system success, an aspect which makes it a more reliable model for application to the educational arena(Cao &

Elias, 2009). In addition, dimensional theory (Gable, et al., 2008)was used to uncover the issues that would be used to measure the IS success/impact. Furthermore, Gable et al. (Gable, et al., 2008) stated that this model should cover the maximum environment that may affect the quality of using any system like the e-learning system. We have reviewed a number of models that are relevant to using the techniques and technology in e-(1992) IS Success m -Impact model (2008), to find the most appropriate model for this research. We found that the DeLone and McLean IS Success model is the most cited model in IS research.
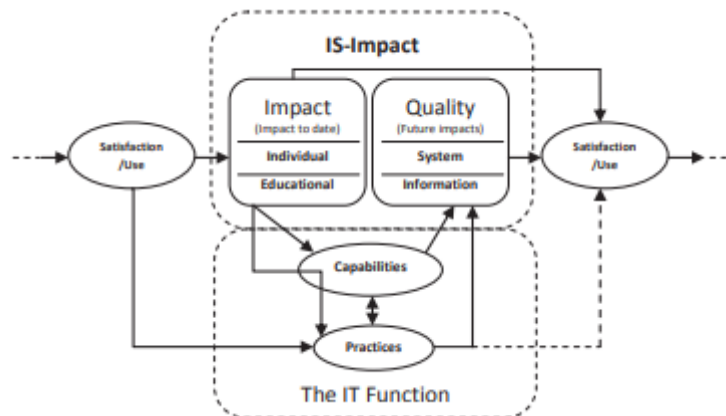
Figure 1.1 Modifying the IS Measurement model

OBJECTIVE

1. To explore Web-Based Learning behaviors among Indian students by analyzing their dependency towards online Schoolwork practices.

2. To Evaluate the acceptance of technology in the Educational Landscape by assessing their Utilization of technology.

RESEARCH METHODOLOGY

Students at a public university in Eastern India participated in a survey that was administered both offline and online. The purpose of the study was to explore how students perceive social media as a tool for collaborative learning in higher education. Indicators of students' relationship with instructors and peers, elements pertaining to student involvement, the assertion regarding the possibility for collaborative learning through social media, and characteristics of academic performance were all borrowed from earlier research for the purpose of this one. The practice of sharing information on the internet was derived from this remark.

The indicators of all of the factors stated above are evaluated using a standard seven-point Likert scale with an anchor, where 1 indicates strong disagreement and 7 indicates strong agreement. The level of interaction between students and their peers was measured by using four different indicators. The sample item "using social media in class allows me to discuss with the teacher" was used to measure the level of interaction between students and teachers. The level of engagement between students and teachers was measured by using three different indicators. I had the impression that my comments were taken into consideration throughout this session; four measures were utilised to evaluate the utilisation of social media for collaborative learning. My academic performance has improved as a result of my use of social media to cultivate a student-lecturer

relationship with my instructors; the behaviour of online knowledge sharing was evaluated using five symbols; collaborative learning experiences in social media environments are superior to those in face-to-face learning environments; the academic performance of students was evaluated using five signs. The guidance that we received from other coworkers who are active on social media had a significant impact on the expansion of our experience.

Procedure and measurement

It was decided to collect a convenience sample of three hundred and sixty undergraduate students from a public college located in Eastern India. A variance-based structured equation model (SEM), which is a latent multivariate strategy that provides the contemporaneous estimation of structural and measurement models that do not fit parametric assumptions, was utilised in order to test and evaluate the proposed research model. A confirmatory factor analysis (CFA) was carried out in order to determine whether or not the criteria of discriminating and convergent validity, which are commonly recognised, were met. It is recommended that the loading be at least 0.50 for each and every indicator. Furthermore, it must be statistically significant at the 0.05 level in order to be allowed.

Demographic analysis

With just 49.2% of the students participating in this poll being male, the bulk of the students were between the ages of 15 and 20 (71.7%), making up 50.8% of the total. At this point, it is important to highlight that the majority of students attending BBAU, which accounts for 53.9% of the total, were enrolled in at least one to five academic pages in order to expand their knowledge, broaden their awareness, and gain access to more material. Forty-six percent of students utilised social networking sites for one to two hours each week in order to participate in group projects and connect with teachers located all over the world. There are several social networking sites, such as LinkedIn, SlideShare, YouTube Channel, and Researchgate, that provide the potential of online collaborative learning. This type of learning provides a platform for students and faculty members to engage in activities that are related to learning. In terms of material access and communication with the members of the faculty, the various academic pages that were followed accounted for 44.4% of the total.

Table 1.1 Demographic Profile n = 360

Table 1 Demographic Profile n = 360		
Variables	Subgroups	Percent
Gender	Male	49.2
	Female	50.8
Age	15–20	71.7
	20–25	18.3
	25–30	5.8

|		
	30–35	4.2
Qualification	Intermediate	60.0
	Graduate	22.8
	Post Graduate	13.3
	Other	3.9
No. of facebook friends	None	36.1
	1–200	30.0
	200–400	13.1
	400–600	20.8
Number of academic groups joined	None	25.6
	1–5	53.9
	6–10	14.2
	11–15	1.9
	Above 15	4.4
Number of educational paged followed	None	13.9
	1–5	44.4
	6–10	20.8
	11–15	11.4
	Above 15	9.4
A frequency of social media	1–5 h/week	46.1
	5-10 h/week	24.2
	10–15 h/week	17.2
	More than 15 h/week	12.5
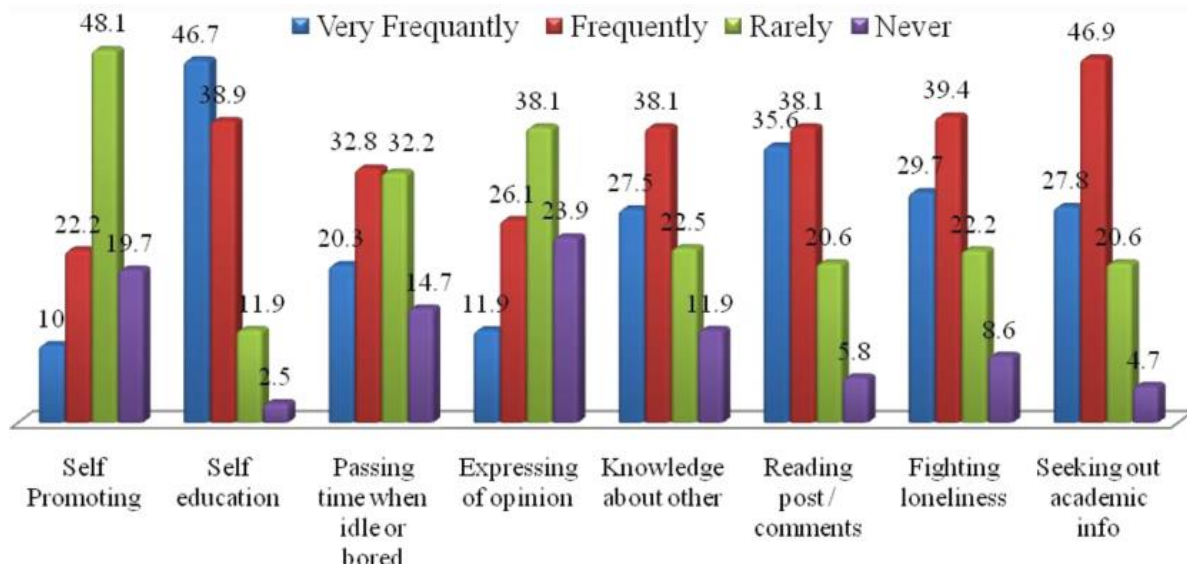
Figure . 1.2

RESULTS

Several assumptions are represented by the route coefficient in Fig. 3, which is an illustration of the variable par connection. The coefficients of standardised partial regression, which are sometimes referred to as β (beta) coefficients, provide an indication of the quality of the multivariate connection that exists between the latent variables in the model. It came as a surprise that seven out of the seven hypotheses that were proposed were accepted. These hypotheses accounted for 78% of the variance in students' academic performance, 60% of the variance in their interactions with teachers, 48% of the variance in their interactions with peers, 43% of the variance in their behaviour regarding the sharing of knowledge online, and 79% of the variance in students' engagement. When additional characteristics are included, it is shown that social media collaborative learning has a substantial link with teacher interaction (β =.693, P < 0.001). This suggests that social media has a direct influence on the level of communication between students and teachers. On the other hand, it is worth noting that there exists a statistically significant positive association between the utilisation of social media for collaborative learning and the interaction between peers (β =.704, p as low as 0.001). This shows that college students who utilise social media for collaborative learning engage in high amounts of contact with their classmates and other members of their academic community. The anticipated rise in peer contact is 7.04 percent, and there is an inferred increase of 10 percent in the usage of social media for educational reasons.

Table 1.2 SEM fit indices

Table 5 Hypotheses based on the results		
Hypotheses	Path coefficient	Accepted?
H1: Use of social media for collaborative learning is positively associated with interactivity with teachers.	.693***	Yes

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H2: Use of social media for collaborative learning is positively associated with interactivity with peers.	.704***	Yes
H3: Use of social media for collaborative learning is positively associated with online knowledge sharing Behavior.	.583***	Yes
H4: More interaction with teacher leads to higher students' engagement.	.450***	Yes
H5: More integration with peers ultimately leads to better student's engagement.	.210***	Yes
H6: Online knowledge sharing behaviour is positively associated with the Students' engagement.	.247***	Yes
H7: Student's Engagement is positively associated with the student's academic performance.	.972***	Yes
Source: Computed and compiled by researchers on the basis of a questionnaire		
*** = p <.001		
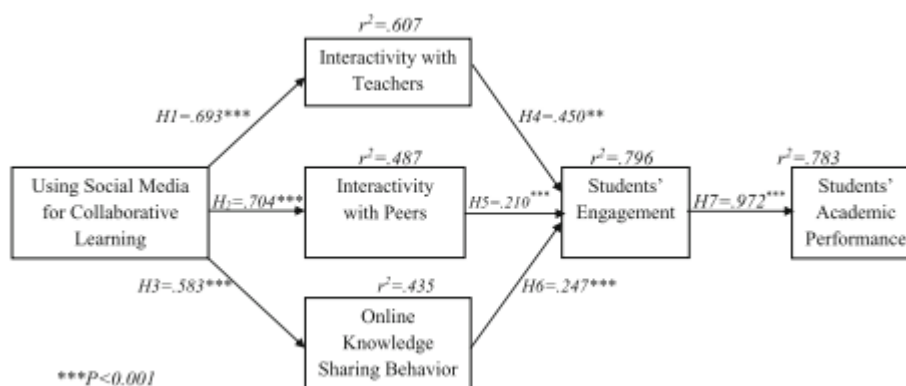
Figure 1.3

CONCLUSION

WWW is a global network and gives the concept of global classroom where any number of students can interact with each other at any time. Goodbye classes, goodbye books and goodbye teachers are all possible with the WBeL. WBeL is an interactive experience with access to on line tutors and can be done from any computers once you have your password. WBeL has become popular amongst educationists because of its inherent strengths and advantages it provides to the instructional process such as, the ability to have multimedia documents, the hypertext/hypermedia capability, WWW network basis, allowing for distance learning.Access is through web browsers such as Internet explorer and Netscape Navigator. With Web Based Learning, training is organized in the form of modules.

We made an effort to present some information in this research on the several approaches to WBeL in India as well as two new models, CSIES and MBES, that have to be imposed on it. Our goal was to make the Indian education system more web-based and, as a result, more complex. In addition, we discussed the advantages and disadvantages of WBeL, in addition to other topics such as instructional design strategies, the development of online learning courses, and the impact of technical writing. Over the past few months, we have been doing research on other aspects of WBeL and its relationship to Indian society.

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