

Acceptance Of Web 2.0 Tools In Higher Education

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ABSTRACT

Internet technologies such as web 2.0 while not designed especially for pedagogical aims. This new wave of internet technologies, sometimes mentioned as the “read/write web”, prepare online people with interactive services. Web 2.0 applications have many affordances that can make them practical in pedagogical settings. This article has two goals. First is to explain the benefits of the web 2.0 technologies, for example blogs, wikis, social networks, social bookmarking especially for teaching and learning purposes in higher education. The second goal of this article is to illustrate models and theories of behavior about acceptance and adoption of an innovation of web 2.0 as internet technologies. Therefore, the recognition of potential web 2.0 tools and user’s attitude and behavior to accept these technologies, it is essential to consider of both potentialweb 2.0 tools and models and theories acceptance are underlined.

Keywords: Web 2.0, Higher Education, Innovation, Acceptance

Introduction

Today, it is obvious that the utilization of internet technologies has meaningful effect on whole aspects of our lives. In the present landscape of education industry, especially higher education institutions have come to understand the ability impact of education utilization the internet in the classroom as section of the learning environment. Despite the many challenges yet to be overcome, internet technologies have additional value to traditional classroom knowledge delivery and have impacted the course delivery and design in many colleges and universities.

The web 2.0 phenomenon as internet technology is a created term, coined in 2004. O’Reilly (2005) introduced that web 2.0 is a term describing the mode in the use of world wide web technology and web make plan that goals to enhance creativity, information sharing, and, most notably, collaboration among user. These contexts had led to the promoted and progression of hosted services and web-based communities, for example, wikis, blogs, social-networking sites and folksonomies. After the first O’Reilly media web 2.0 conference in 2004 it became notable.

The advent of web 2.0 as a new wave of internet technologies in past few years they have more potential and many characteristics to further enhance the teaching and learning environment in higher education. With the use of this transition means, student no longer

access the web just to find and use course information, now they are more participation to connect different pieces of information and create new knowledge that could be shared with others. In addition, they can post journals, photos, movies and more with new collaborative means and a multitude of websites. However, this use has been primarily limited delivery of content, such as accessing course materials.

Web 2.0 Tools in Higher Education

The first generation of technologies, radio, TV, one way video conferences, E-mail, discussion forums etc., prepared a communication among users, despite some significant limitations of effective interaction and collaboration and users were passive consumers of material with this means. To complete the shortages of web1.0 and to prepare more effective on interactivity and collaboration, examination for the approaches of using Wikis, Blogs effectively, podcasts and social network in education has been started. The user's active participation in the content of generation process is main characteristic of these means that called web 2.0. In addition, it is important and underlined to studies of teaching and learning for quality learning in education about efficacious evolution of technology, significance of active participation, critical thinking, social attendance, collaborative learning and two way communications (Beldrrin 2006).

In this article, there a focus on the following four kinds of web 2.0 collaboration tools including blog, wiki, social networking and social bookmarks.

Blogs:Blogs are online diaries which allow users to generate, publish and arrange their own web pages that include dated content, comment, entries, discussion etc. in chronological order, without need of any technical skills (Alexander, 2006; Castenade, 2007). In the use of blogs people can publish data and knowledge which they collect from different sources and set up relation between them. Furthermore, Really Simple Syndication (RSS) and the possibility that user could provide comments on the information posted make blogs also a social interactive and collaborative software application (Petter et al., 2005).

They are begin utilized in several fields with different goals, because blogs are easily and flexible tools for using. Particularly, since blogs have many pedagogical advantages, number of research and studies in instruction usage of blogs increased. It is offered that blogs improve writing skills, support critical thinking with collaborative learning, make easy reflecting themselves, and prepare feedback and active learning (Seitizinger, 2006).The use of blogs are well fit to worked as online individual journals because they allow learners sharing files and resources and publishing on the internet and learners has ability of writing

of reader beyond classmates (Godwin, 2003). Student can use blogs as e-portfolios that save records of individual progression process, achievement and reflections (Lu, 2007).

Wikis: Leuf and Cunningham explained generations of the original wiki idea” a wiki is a freely expandable collection of interlinked web pages, a hypertext system for storing and modifying information-a database where each page is easily edited by any user with a form-capable web browser client” (Schwartz et al., 2004). With the use of wiki learner able to visit wiki, read information and add substance to wiki or update and arrange content (text, video, image, link, etc) or building of wiki (Augar et al., 2004). Wikis are as free open resource of internet tools that no one permits the generation of wiki pages and each person is automatically permitted to write, edit and publish (Fountain, 2005).

Wikis as impressive tools for learning and teaching are considered that they promote collaborative learning, prepare collaborative writing, encourage project based learning, improve creativity, support critical searching, and develop inquiry based and social constructivist learning (Cress&Kimmerle, 2008).

Social networking: Social networks such asfacebook, Friendster,badoo, tagged, etcare software that allows people generate individual forums and found a diversity of networks that connect him/her friends, family, and other colleagues (Lenhart&Madden, 2007). They are internet tools that encourage collaboration, information sharing, communication and interaction of people from various places who come together with a common need or goal, interest (Pettenati&Ranier, 2006; Brandtzaeg& Heim, 2007). As range of applications, Social networks as internet technologies are also familiar that in a web-based environment increase group interactions and shared spaces for collaboration, aggregates information exchanges (Bartlett-Bragg, 2006).

Application social networks as educational tools can be viewed that come from their affordances of data and information discovery and sharing, drawing and supporting networks of users and make easy connections between them, engaging people in informal learning and generate, expressive kinds of manner of acting and individuality seeking, while, promoting a range of digital illiteracies (Lee&McLoghlin, 2008).

Social bookmarking: Social bookmarks as internet sites permit people to store, describe, and share very many web addresses with others. User in their bookmark pages by subscribing can explore bookmark collections of others. In the use of bookmarking site that users are interested they could tag it using some words to aid others find it easily. Teacher

to facilitate collaborative information and data finding could use social bookmarking (Alexander, 2006). Teachers to save significant pages about title could generate a social bookmarking page. Learner with using book marking sites, sharing links, and uploading sources discovered could collaborate on team projects, while teachers could follow their students bookmark pages to acquire understanding on their research process and developments (Alexander, 2006).

Models and theories of behavior about acceptance of web 2.0 tools in higher education

As it is predicted that potential benefit of new wave of internet technologies, web 2.0 tools for higher education should make easy the acceptance process of these tools; diffusion, acceptance and adoption of innovations are active and many-faceted. While examining diffusion of internet technologies, web 2.0, in higher education, various dimensions such as teacher, student, media, cost, technology access, efficacy of users, social dimension, recourses etc. ., must be taken into consideration.

In an effort to realize determinants of end user's attitude and behaviors toward information technologies, many different models and theories have been developed, the theory of Reasoned Action (Fishbein&Ajzen, 1975), Theory of Planned Behavior (Ajzen, 1991), Technology Acceptance Model (Davis, 1989) and Decomposed theory Planned Behavior (Teylor&Todd, 1995).

Theory of Reasoned Action: Theory of Reasoned Action (Figure 1) is based in social physiological context, proposed by Fishbin and Azjen (1975). The main belief in the TRA is that behavior of acceptance an innovation is a personal's behavioral intention depends on attitude and subjective norms. In specific context of this construct is emphasis that sometimes behaviors can be done instinctive and peoples do not have volitional control for their all behaviors.

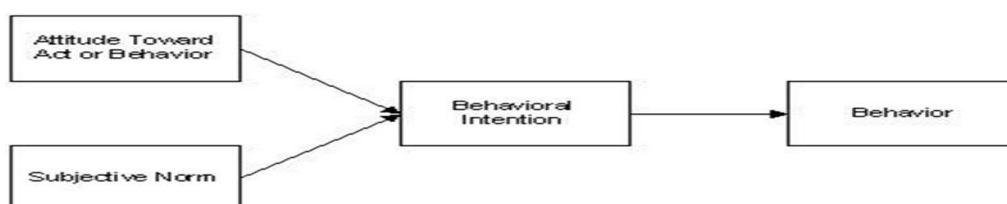


Figure 1: The theory of Reasoned Action (TRA) by Fishbin and Azjen, 1975

Technology Acceptance Model

Technology Acceptance Model (figure 2) is based on the Theory Reasoned Action, proposed by Davis (1989). It expressed that a personal's system use is resolved by behavioral intention. In this theory (TAM), Davis suggests that effect of other variables on technology adoption is mediated by two personal beliefs: Perceived ease of use (PEU) and Perceived usefulness (UP). UP refers to the degree to which a person believes that using the system would enhance his or her course performance. PEU is defined to the extent to which individual believes that a using the system would free of cognitive attempt (Davis, Bagozzi, &warshaw, 1989).

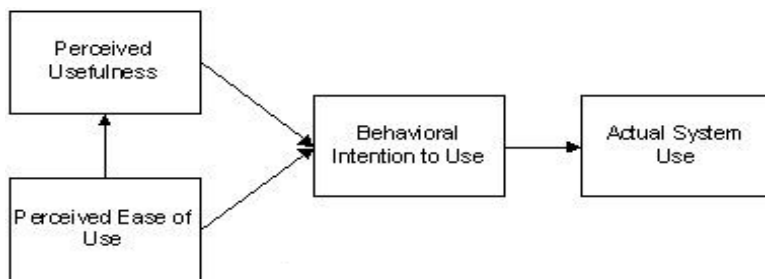


Figure 2: Technology Acceptance Model, by Davis, 1989

Theory of Planned Behavior

Theory of Planned Behavior (Figure 3) is basically founded from Theory of Reasoned Action (TRA) by Ajzen (1991), because of the limitation of TRA deal with behavior over which people incomplete volitional control. In accord with TPB, individual's activities are decided by their intentions, which are affected by their attitude, perceived behavioral control, subjective norm (Ajzen, 1991). The three antecedent in the theory planned behavior model are understand to be effect, both direct and indirect, on a different individual's behaviors through mechanism of effect behavioral intentions, and many survey deduce that the TPB is an efficient theory(Armitage&Connor, 2001).

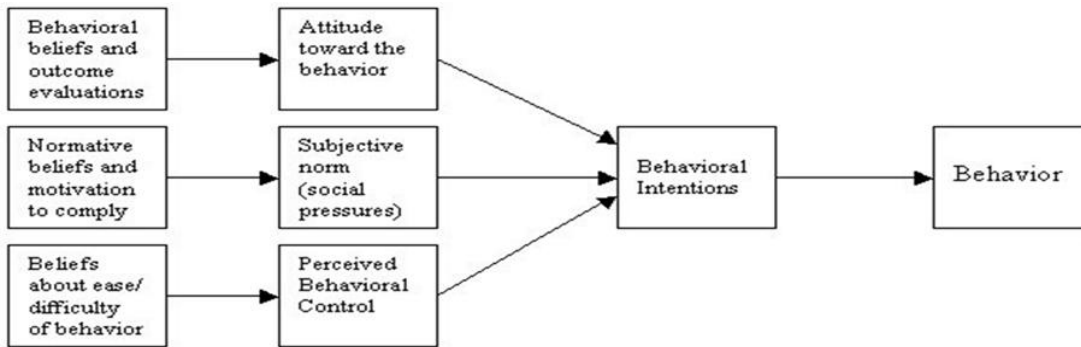


Figure 3: The Theory of Planned Behavior (TPB) by Ajzen, 1991

Decomposed Theory of Planned Behavior to understand user's intention to use web 2.0

The Decomposed theory of planned behavior developed of theory of planned behavior (TPB) that proved that actions are decided by a combination of people's behavioral intentions and perceived behavioral control (Ajzen, 1991). The decomposed theory of planned behavior, like the theory of planned behavior, posits that behavior is a direct determinants behavioral intention and both view behavioral intention as a determinant of attitude, subjective norms, and perceived behavioral control. In the decomposed theory of planned behavior extends this idea and assert that attitude, subjective norms, and perceived behavioral control are all decomposed into lower-level belief constructs (taylor&todd, 1995).using this model not only allowing us to better understand the antecedent's relationship, but also it allows us to more specifically examine factors that impact the adoption and acceptance and use of new technologies (taylor&todd, 1995).

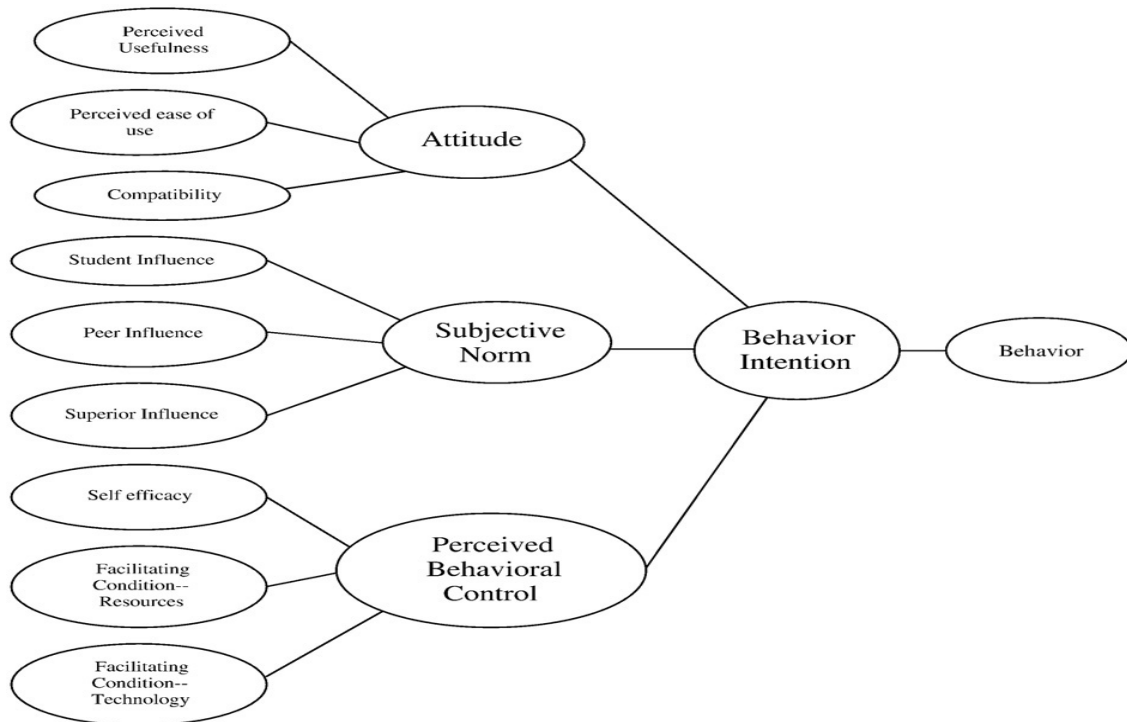


Figure 4: Decomposed Theory of Planned Behavior (DTPB), (Taylor and Todd, 1995)

Attitude is defined to the extent to which a personal favors the behavior being tested (Ajzen, 1991). This model focuses on three attitudinal parts: perceived usefulness, perceived ease of use, and compatibility. Subjective norms defined to social pressures that make a personal act a special behavior (Ajzen, 1991). Different social groups might have various attitudes relate to the adoption of a particular technology (Taylor&Todd, 1995). Perceived behavioral control accounts for conditions where personal perform not have perfect control over their behavior and are made of two parts (Ajzen, 1991). The first is self-efficacy thinking the individual comfort with use technology (Bandura, 1982). The other parts includes facilitating conditions (Triandis, 1979) thinking the availability of sources such as money, time, and other resources needed to use the technology.

Student and lectures are as users of web 2.0 technologies in higher education. A survey instrument for using the decomposed theory of planned behavior as theatrical framework to survey user's attitude and behavior can be questionnaire. This questionnaire as survey instrument focus on items reconnaissance comfort level with web 2.0 technologies (blogs, wikis, social networking software, social bookmarking), actual utilization of specific web 2.0 tools in the teaching and learning environment, and attitude toward particular web 2.0 technologies. In addition, the instrument can be consist of a series usage a five point likert scale to examine factors that influence student's and faculty's intention to use web to technologies in their education. All survey items are including in figure 4.

Conclusion

The use of web 2.0 as a new wave on internet technologies has significant potential to support and enhance in teaching and learning environment in higher education. In the past few years, for benefit organizations are using internet technology such as web 2.0 to promote work collaboration. For example, Motorola has more than 2600 internal blogs and wikis to promote information sharing within the organization (Dearstyne, 2007). Now it is up to teachers and students utilize these new technologies to efficiently support and enhance their education. On the other side, one of the significant ways of acquire productive outcome with these technologies, is personal's acceptance and to realize determinants end user's attitude and behaviors toward knowledge technology that there has been many different models and theories in this filed. It can be suggested that several dimension of acceptance process is illustrated by problem of the research together with the effect of method used. Surely, it well understands that all dimensions of a question cannot be managed with only one single study. But the need for depth studies and more comprehensive about attitude and behaviors toward adoption of innovations is also clear therefore, it can be proposed that employment from various theories and research methods will make strong the studies in this area.

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