

DIGITAL TOOLS A BOON FOR DIGITAL EDUCATORS

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ABSTRACT

Latest technologies can support and make learning as more interesting and painless to learners. Technological tools enable both educators and learners to send and receive information and make instant conversations like real-time classrooms. It also enhances educators' proficiency in teaching learning process. The present paper emphasizes on how the digital tools like Facebook, Twitter, Blog and etc, act as a gift for the digital educators in e-learning. Further, it discussed about how the digital tools are involving learners into learning activities.

Key words: Digital tools, Collaborative learning, Web 2.0, Social media, E-learning.

INTRODUCTION

Information and communication technology (ICT) operate as a changing agent in our contemporary society. All the fields are digitalized these days, among them education is not an exception. Technologies and internet connections provide various new possibilities for the development of educational technology. It can be used to develop new knowledge and skills in all kinds of educational fields (Liu, Wu, and Chen, 2013; Wentling, et.al, 2000; Shih, Feng, and Tsai, 2008). Students can learn faster and easier than before with the help of technology (Sarica, and Cavus, 2009). Web based technologies are more useful in e-learning. E-learning is one of the most exciting, dynamic and yet challenging field (Yang, 2013). The main aim of e-learning is to ensure an equal access of the materials to all learners in their learning process from the available resources and technology (Dalayeva, 2013).

Technology based collaborative learning is also find a significant place in e-learning. For the past six years, lot of research studies published in SSCI covered journals are related to technology based collaborative

learning (Keser, and Ozdamli, 2012). It indicates that technology supported collaborative learning creates a new environment for e-learning.

In addition, the participatory web technologies (Web 2.0), emerged in the form of social media offer wonderful collaborative learning platforms to learners at the present time (Yang, 2013; Kulakli, and Mahony, 2014). Social media like Facebook and Twitter is a group of internet based applications that built on the web 2.0. They can allows users to read, write, create, share, remix, and exchange the content to the web (Davis, Carmean and Wagner, 2009; Kaplan and Haenlein, 2010; Bicen, 2014). Several studies reported that positive affordances of social media in teaching and learning. For instance, a study reported that teachers used social media as a tool to read daily news and access resources to teach (Firat, Koksai, 2017; Manca, and Ranieri, 2016). Furthermore, the results of a study confirmed that students have positive attitude to use social media for learning (Espuny, Gonzalez, Lleixa, and Gisbert, 2011).

E-learning 2.0 differs from traditional e-learning. Instead of simply receiving, reading and responding to learning content in traditional e-learning, E-learning 2.0 allows learners to create content, and to collaborate with peers to form a learning forum and make discussions with distribution of content creation and responsibilities (Yang, 2013; Lee, 2013). Further, 2.0 tools like collaborative writing (wikis, Docs and Spreadsheets), media sharing applications (Flicker, Youtube and TeacherTube), and social networking sites (MySpace, Facebook and Friendster) foster and encourage informal conversation, dialogue, collaborative content generation and the sharing of information in learning process (McLoughlin, and Lee, 2010).

Web technology 3.0 is also glowing its light in e-learning like the morning sun. Web 3.0 is referred as the semantic web or the web of data is the transferred version of Web 2.0. Web 3.0 technologies and functionalities give rise to e-learning 3.0 (Hussain, 2013). Incorporating this technology in education can create a suitable learning environment by enhancing learner's cognition on reality whereas the virtual reality can replace the real world with a simulated one (Pattnayak, and Pattnaik, 2016).

Thus the present article focuses on the emerging digital tools in e-learning. The tools include blogs, e-mails, online quizzes and tests, instant messenger, internet call through skype, learning through mobile, QR codes, Facebook, Twitter and Games.

DIGITAL EDUCATORS AND E-LEARNING

Educator refers to a person who provides instruction or education to other people. Various technologies have affected individual's lives from different aspects especially in learning (Delialioglu, and Alioon, 2015). Therefore, digital educators are those who have effective utilization of technology for rich learning.

Learning with help of any devices such as computer, mobile, laptop, PDA, etc through internet is called e-learning or web based learning. E-learning is an ability of a system to transfer, manage, support, and supervise learning and learning materials by electronically (Normark, and Cetindamar, 2005). Researchers delineated that electronic devices can help the students to improve their basic skills, such as reading, writing, and increase their attention and interests in learning (Lopez, and et.al., 2013; Sarica, and Cavus, 2009). The main objective of e-learning is to improve high efficiency, effectiveness, engagement, satisfaction and motivation among learners. Further, effective e-learning environment encouraged transmission between students and teachers, cooperation among students, prompt feedback, time on task and active learning techniques (Shea, Pickett and Pelz, 2003).

Blogs

Blogs are increasingly used as an educational tool in recent time classrooms (Gokdas, and Kilic, 2014). Blogs provide opportunities for people to publish their thoughts, opinions, and feelings in an online environment (Deng and Yuen, 2011). Blogs have some features that discriminate it from a web page. The technological and functional features of blogs allow users to be used as an educational tool for reflective thinking (Farmer, Yue, and Brooks, 2007), collaboration, interactivity, etc (Gokdas, and Kilic, 2014). Additionally, it allows easy creation of a page, easy filtering of content for presentation by date or category, and it also allows the blog creator to invite and add other authors to the blogs (Nedeva & Nedev, 2010).

In addition, blogs help to create own post and make interaction with each other as well as the instructor (Williams, and Jacobs, 2004; Higdon, and Topaz, 2009; Neo, and Neo, 2010). Furthermore, studies explored that blogs are valuable tool in an instructor's armoury (Isakovic, and McNaught, 2013). Evidences also showed that blogs can help to improve literacy in learners (Downes, 2004) and used as a communication tool for teaching (Baldea, Maier, and Simionescu, 2015). Hence, undoubtedly it was proved that blogs are effective instrument in learning process.

E-Mail

E-Mail is another tool used in educational contexts. It acts as an effective and communication tool among learners as well as teachers. They offer an excellent way to interact with their teachers because of its usefulness and easiness (Rahman, Anwar, and Numan, 2008; Joshi, and Saxena, 2005; Sarica, and Cavus, 2009). For instance, the teachers can make video conversation with their students through hangout application in Gmail. In addition, teachers and students can integrate e-mail based activities into their curriculum with use of e-mail accounts like Yahoo, Gmail, Hotmail, etc, (LeLoup, and Ponterio, 1997). In the same vein, E-mails can also be used by teachers to facilitate the classroom activities (Lawrence, 2002; De Montes, and Gonzales, 2000), mentoring activities (Cook-Sather, and Mawr, 2007; Brown, and Dexter, 2002; Cascio, and Gasker, 2001), and collaborative activities (Grunberg, and Armellini, 2004; Davis, and Resta, 2002).

Many studies have reported that the e-mail provided many benefits to the learners in teaching and learning process. In a study it was analysed that the e-mails are used to deliver the course related information and assignment (Cascio, and Gasker, 2001; Boxie, 2004). Another study reported that e-mail is used to make learning effective, efficient, and encaging (Kim, 2008). Similarly, a research confirmed that the teacher can assign a debate topic and asks the students to discuss it via e-mail (Ramazani, 1994).

Facebook

Facebook is a dynamic tool to reach the students in the contemporary learning situation. It is one of the social media accessed by millions of people every day. According to recent statistics, 1,121 million number of users access Facebook in worldwide as of July 2017 (Statista.com, 2017). Among them, India claimed the first place with 241 million users. A study confirmed that Facebook used as a tool to write assignment and improve students communication skills (Buga, R., Capeneata, I., Chirasnel, C., and Popa, A, 2014). Likewise, another study explored that Facebook facilitated discussion environment among students (Lin, Hou, Wu, and Chang, 2014). Further, a study examined that Facebook is used as a platform to execute collaborative online learning activities (Llorens, and Capdeferro, 2011).

Twitter

Twitter is also a rising digital tool used for instant communication and content sharing among teachers and students in present learning environment. It enables both teachers and students actively and instantly participate and exchange views with each other on educational activities (Menkhoff, Chay, Bengtsson, Woodard, and Gan,

2015; Guzman, and Del Moral, 2013). In addition, students have shared and discussed about course materials posted by their teachers and interacted among themselves and with their teachers (Chawinga, 2017). Likewise, students' posts and discussions are supervised by their teacher via twitter (Ebner, Lienhardt, Rohs, and Meyer, 2010). Meanwhile, twitter provides most important educational strategy i.e peer feedback in the form of formative assessment for collaborative learning (Fernandez-Ferrer, and Cano, 2016). Finally, many studies predicted that the instructional and pedagogical benefits of twitter in classrooms (Dhir, Buragga, Boreqqah, 2013).

Skype

Skype is a new emerging technology and yet another communication tool for learners (Wu, 2005). Skype is an internet based application for online communication, which has been used in classes and affording many possibilities for teaching and learning (Messner, 2010; Blankenship, 2011; Foote, 2008). Additionally, it provides opportunities for the teachers and students to collaborate with each other anywhere in the world (Chhabra, 2012; Lee, 2013). Further, the teachers can offer mentoring and learning activities to the learners with help of Skype (Ponnachan, 2015).

Quick Response Code (QR code)

QR codes are rapidly gaining its place in recent development of teaching learning process. QR code is a type of matrix bar code or two dimensional code designed to be read by any smart phones with QR reader software (Kossey, Berger, and Brown, 2015). The code consists of black modules arranged in a square pattern on a white background (Shin, Jung, and Chang, 2012; Jamu, Lowi-Jones, Mitchell, 2016). The QR code was designed to allow its contents such as texts, images, URL links or other data to be decoded (Jupiter, 2011; Lee, Lee, and Kwon, 2011). Also it offers connect digital resources into printed text with QR codes and this will leads to motivate and engage the learners with different learning needs (Chen, Teng, and Lee, 2010).

Many empirical studies suggested that QR codes have the potential to be used in the teaching and learning process. The findings of a study revealed that students were actively involved by working collaboratively with peers and very enthusiastic and motivated to know the content embedded in the QR codes (Saprudin, Goolamally, and Latif, 2014; Rikala, and Kankaanranta, 2014). In addition, Law and So (2010), have noticed that the QR codes can guide the students through the self assessment process. Also, a study indicated that the students used QR codes to send questions, comments and suggestion to the teacher during the lecture (Al-Khalifa, 2008). In the same vein, another study revealed that QR code integration in computer course has a positive effect on the academic achievement of the students (Bal, and Bicen, 2016). Further, a study showed that QR code integration in

learning will enhance motivation, communication, collaboration and critical thinking of the students in the classroom (Mehendale, Masurekar, Nemade, and Shivthare, 2017).

Learning via Mobile technology

Learning via mobile technology is gaining its importance in recent years (Ko, and et.al., 2015). Mobile learning or M - learning is one of the widespread and emerging trend in technologically rich learning. Mobile learning is defined as, learning that occurs when learners have access to information anytime and anywhere via mobile technologies to perform authentic activities in the context of their learning (Martin, and Ertzberger, 2013). Mobile learning is also defined as any service or facility that supplies learner with general electronic information and educational content that aids in acquisition of knowledge regardless of location and time (Lehner and Nosekabel, 2002).

Mobile learning allows the people to learn whenever and wherever they want with their mobile devices such as laptops, tablets, PDA, and smart phones (Khan, and et.al, 2015; Korucu, and Alkan, 2011; Sarica, and Cavus, 2009; Koole, McQuilkin, and Ally, 2010). Mobile devices are highly portable and give flexibility in learning at any time and any place (Traxler, 2007; Sarrab, Elgamel, and Aldabbas, 2012; Iqbal, and Qureshi, 2012; Althunibat, 2015; Hyman, Moser, and Segala, 2014). In addition, mobile learning provides learners with greater flexibility by accessing just-enough, just-in-time and just-for-me contents (Peters, 2007; Rosenberg, 2001), which enhances learning effectiveness and efficiency.

Besides, Mobile technology opens the door for a new kind of learning. Mobile learning significantly improve student attitude when compared with computer based instruction (Martin, and Ertzberger, 2013).

Gamification

Gamification is not a new one but implementation of games into education. Generally games are most attracting and liking force for young age learners. Especially digital age learners mostly addicted to games playing in mobile devices. Games can be defined as a form of play with goals and structure (Maroney, 2001). Also, games are supporting to active learning, experiential learning and problem based learning (Oblinger, 2004). Additionally, games can promote motivation, engagement and learning (Gillern, and Alaswad, 2016). There are two kinds of games such as entertaining games and commercial games which offer opportunities to participate actively. Entertaining games provide engaging activities and commercial games develop problem solving ability and literacy skills (Gee, 2003).

Gamification is referred to as the use of game elements and game design techniques in non game applications to engage learners and to shape certain behaviors (Marcos, Dominguez, Navarrete, and Pages, 2014; Simoes, Redondo, and Vilas, 2013; Sua, and Cheng, 2013; Muntean, 2011; Deterding, 2011). Some well known game elements are points, levels, badges, achievements, leader boards and virtual gifts (Bunchball, 2010). Studies also suggested that use of game elements in the classroom can enhance the classroom environment (Yang, 2012).

Many researchers suggested that gaming design help the teachers to integrate game elements in learning activities (Haksu, and Young Yim, 2012; Erenli, 2012). Research studies pointed out the effectiveness of gamification in e-learning (Marcos, Dominguez, Navarrete, and Pages, 2014; Dominguez, and et.al., 2013; Urh, Vukovic, Jereb, and Pintar, 2015; Clark, and et.al., 2011). A study indicated that gamification promotes behaviour changes in order to increase participation in peer tutoring sessions, which is reflected in their pass percentage (Decker, and Lawley, 2013). Finally the result of a study indicated that teachers' attitude towards gamification in teaching is positive and high (Marti-Parreno, Segui-Mas, and Segui- Mas, 2016). Therefore, gamification might be used as a tool by the teachers as a regular basis in teaching learning process.

CONCLUSION

Today majority of the individuals has an aware of web technologies and begin to use them in their daily life. Likewise, digital technologies put forward new opportunities and developments for teaching and learning. Also, they fabricate innovative communication platforms for teacher educators to share their thoughts and experiences and collaborate with their students through digital tools like social media. The digital tools act as an instrument for active and joyful learning of the students. Moreover the higher education institutions were started to utilize digital tools like Facebook, Twitter, and etc in developed countries (Kulakli, and Mahony, 2014). In developing countries like India, it takes its baby steps. Therefore the teacher educators and educationalists should consider the present situation and prepare themselves to utilize the digital tools in their teaching. It will lead students to reach destination of educational goals using ICT as a vehicle.

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