

Technology-Supported Online Writing: An Overview of Six Major Web 2.0 Tools for Collaborative-Online Writing

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Abstract

The emergent of the internet and the rapid development of information and communication technologies (ICT) envisaged a system capable of quickly transforming and modernizing the teaching and learning processes. The 21st century Web 2.0 technologies, such as *Edmodo*, *Google docs*, *Zoho writer*, *Blogs*, *Wikis*, and *Facebook* can be used in blended or virtually online learning classes, forums or courses. They play significant roles in promoting mutual interaction, collaborative platforms for communication and learning among people. This paper aims to give an overview of six major webs 2.0 technologies most capable of providing online writing in blended or virtual online classrooms. It was found that despite the enormous applications of Web 2.0 technologies in education, they are not formally enacted as part of the educational curriculum, though, they are widely considered as techniques that aid learning or used for social interaction purposes per se.

Keywords: Blended learning class, collaborative learning, online writing, Web 2.0 technologies, and Web-facilitated class

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1. Introduction

The application of technological tools in the fields of teaching and learning brings profound changes and intense transformations in the education system and facilitates the ways of learning interaction between teachers and students or between students and their peers. Moreover, different acronyms emerged in applied linguistics literature referring to the application of computer in language teaching and learning which historically started in the late 1950s to date, such as ‘computer-assisted language learning’ (CALL), ‘computer-assisted language teaching’ (CALT), ‘computer assisted language instruction’ (CALI), ‘computer-assisted language testing’, ‘intelligent computer-assisted language learning’ (ICALL), ‘computer-mediated communication’ (CMC), ‘technology-enhanced language learning’ (TELL), and ‘Web-Enhanced Language Learning’ (WELL). The last term is reference to applications of internet and other social-media sites to enhance or support language learning (Beatty, 2013, Warschauer, & Healey, 1998; Chappelle & Douglas 2006; & Higgins, 1995). By the same token, the title of the present study ‘technology-supported online writing’ suggests the application of web technologies in teaching and learning writing online.

In this case as Westwood (2008) claims that writing is no longer a paper-based activity, but it also involves a richer media such as multimedia platforms. Consequently, both teachers and learners use various social media sites as well as other technological tools invented in 21st-century which play essential roles directly or indirectly in the educational system. Moreover, with recent developments in information and communication technologies (ICT) have led teachers to create contemporary learning environment modernizing current teaching techniques, materials, methods as well as assessment tools (Ekmekçi, 2016). The pedagogical purpose of using technology in modern day classrooms is to enable students to acquire the skills that are required in modern-day academic life and digital world as well as future career. Apart of this, the use of modern technology in today's classroom can boost the learners critical thinking and analytic skills that are needed purposely for promoting thinking and skills of students by self-development (Ismael & Al-Badi, 2014).

The beginning of 21st century marked noticeable changes in the internet whereas it used to facilitate learning. According to Klobas (2006) Anne Clyde is one of the pioneers of using internet for virtual collaborative learning. “The World Wide Web-based services enabled people not just to read what was on the Web, but also to write to the Web, reached a critical mass, and new terms were coined to describe this new phenomenon (p.11)”. With the application of web-based technologies (Web 2.0) to education, students become more interactive and learning focused on more student-centered. Thus, students’ dependence on the teachers is reduced drastically. The philosophical goal of web-based (Web 2.0) technologies is to offer an effective learning environment for students by means of collaborative learning which then increase their academic performance (Su & Cheng, 2015).

Several studies pinpoint some benefit of using technological inventions especially those that are referred to Web 2.0 technologies. Some studies postulate 2.0 tools of having many advantages of utilizing the Internet for giving more grounded inspiration to learning among learners. The Internet permits cost-effective information services, blended or collaborative learning, more than has ever been imagined (Teehan, 2010; Woods, & Thoeny, 2011).

2. Online Writing

Writing is one of the demanding language skills that require a high linguistic knowledge and grammatical background. The intricate nature of writing is that it is seen as ‘a process as well as a product’ which requires creativity, concentration, and determination from the writers (Connally, 2013). Writing especially by second language learners (L2) writing is viewed as very difficult skill to learn by L2 learners, which requires for systematic and comprehensive writing instruction (Langan, 2013; & Casanave, 2013). Studies of skilled writers illustrate well the complexity of the writing process (McCutchen, 2011). Learners are required to address content, organization, structure, and mechanics appropriately to convey meaning through writing simultaneously (Lee & Lee, 2013).

Online writing is part of online language learning (OLL). This can take place in Web-facilitated, hybrid, or fully virtual. The term online language learning (OLL) can refer to a number of learning arrangements: a Web-facilitated class, a blended or hybrid course, a fully virtual or online course. These are new language learning environment with online instruction delivery formats, along with the mix of the technological tools employed therein, overlap in many cases with the differences in nomenclature having more to do with the percentage of content that is delivered online (Blake, 2011). There is increasing evidence that technology, when properly infused and integrated into teaching and learning, has a significant positive effect on students learning process (Solomon & Schrum, 2007).

In the research context, information and communications technology (ICT) seems to be able to provide a cyberspace to conduct alternative writing instructions overcoming the restrictions of curriculum, syllabus, session times, and classroom interactions (Tai, Pan, & Lee, 2015). The American Council on the Teaching of Foreign Language (ACTFL, 2013) noted that technology has been used to both assist and enhance language learning. It is now rare to find a language class that does not use some form of technology (Parvin & Salam, 2015).

3. Web 2.0 Tools Used for Collaborative-Online Learning

Internet in the 21st century witnessed virtual changes with the rapid development of Social websites. Various terms are used researchers referring to social website tools supported learning such as learning management systems (LMSs), web 2.0 technologies, virtual learning environment (VLE) or course management systems (CMS), collaborative learning and blended learning classroom (Conradie, Moller, & Faleni, 2015; Ekmekci, 2016). In its broadest sense, social websites include any software tool that supports group interaction or collaborative platform for a group of users (Woods & Thoeny, 2011).

The common thing social software share is that they are tools that facilitate social interaction, collaboration and information exchange, group or mass communication. They also provide online social communities for small or large groups of users (Klobas, 2006). Meanwhile, collaborative learning is the mutual transformation process of individual internal cognition and social interaction (Li, 2014). The idea of collaborative learning is centered on Vygotsky’s (1960) socio-cultural approach which viewed learning as social interaction and knowledge co-construction (Wegerif, 2006). It seems to be an established procedure for proposing classes at University and the expansion of online activities induced a reflection on the best practices and

tools to be used during the e-learning classes (Hou & Wu, 2011). Such sites allow multi-users to publish share ideas, edit texts, or amend various ideas, debate, comment, on a post, negotiate or construct deep understanding concerning some phenomena (Yücel & Usluel, 2016).

The term Web 2.0 is 'is the new generation of the Internet' (Teehan, 2010) perhaps the most frequently used of web-based supported learning terms. It comprises all web platforms used by people to connect online make a collaborative participation (Kosalge, 2017). The term web 2.0 was first introduced by a team headed by Tim O'Reilly to mark that transitional stage of web-based technologies in the sense of advancement and transformation of web-tools and development of new social sites (Klobas, 2006; Woods & Thoeny, 2011; Ekmekci, 2016). The most frequently cited web 2.0 tools classified as social collaborative learning systems include Google docs, blogs, wikis, Facebook, and Edmodo, and Zoho (Klobas, 2006; Teehan, 2010; Woods, & Thoeny, 2011).

On the other hand, the term 'online learning' is an established procedure for proposing classes at University and the expansion of online activities induced a reflection on the best practices and tools to be used during the e-learning classes (Hou & Wu, 2011; Yücel & Usluel, 2016). Collaborative and cooperative didactic methods were tested and considered optimal for delivering courses (Parvin & Salam, 2015).

Furthermore, various researchers adopt the Unified Theory of Acceptance and Use of Technology (UTAUT) to investigate the effectiveness of web 2.0 technologies. The UTAUT is a useful framework that can be used to gauge information to the appropriateness and behavioral intention to use technological tools. Study of Venkatesh, Morris, Davis, and Davis (2003) using UTAUT indicates that majority of the participants showed behavioral intention to use technology.

3.1 Edmodo as a Tool facilitating Online Collaborative Writing

Edmodo is a free and secure learning platform designed by Jeff O' Hara and Nick Borg in 2008 for teachers, students, parents, schools, and districts, and is available at www.edmodo.com (Chada Kongcham, 2013). Edmodo is a form of web-based social learning application for teachers and students (Halm et al., 2012) commonly called 'Facebook' for the higher education, this is because its environment and features look similar to Facebook, but is much more private and safe because it allows teachers to create and manage accounts and only for their students, who receive a group code and register in the group, can access and join the group; no one else can participate or spy on the group (Jarc, 2010). Ekmekci (2016) defines Edmodo as an alternative assessment tool is embedded in a learning management system (LMS) called Edmodo which is a user-friendly and popular platform. The next section focuses on learning management systems in general and then Edmodo as an assessment tool is presented. The site provides a simple way for teachers and students in a virtual class to connect and collaborate (Cauley, 2012; Zain et al., 2016).

Concerning the interface of Edmodo is somewhat similar to Facebook. This enables the users of Edmodo to create a sense of familiarity among them. It is easy to use since most students have a Facebook account and to ensure that it is user-friendly. However, the difference between Edmodo and different SNSs is it is a social platform that allows for collaborative learning, whereas the students, facilitators, and parents, as well as guardians, can work together to convey or share content, get to homework and view grades. The greatest favorable position of Edmodo contrasted

with different SNSs is that it has the essential parts designed pedagogically for academic assessment and evaluation of students progressive achievement in learning tasks, for example, Quiz, Assignment, Poll, and so on. These features will truly aid learning by the group of people who were collected online when they are far from the grounds. Thus, they supported distance learning by the group of learners or blended class where students will still connect together when they back home to do some assignments or workout some learning task. Other than that, guardians can likewise see their kids' academic advance when the guardians sign in. With respect to the educator, they can get the measurements of appraisal promptly consequently decreasing their chance taken on the off chance that they needed to figure it physically. Borg and O'Hara trusted that a person to person communication adapted towards the requirements of understudies could profoundly affect how understudies team up and learn in their reality, as opposed to the school setting their educators experienced childhood in (Gushiken, 2013). Instructors have noticed that Edmodo even fortified the connections amongst understudies, and prompted a more grounded classroom group (Mills, 2011).

Learners can collaboratively share content, do the assignment together or submit their homework online. In addition, they can partake in quizzes or tests online whereas their facilitators can give instant feedback to learners. Other features of Edmodo include notes giving, alerts and polls for voting (Jarc, 2010). Therefore Edmodo can be seen as one of the famous web 2.0 tools, which is easy to use by learners and simple to set up by teachers or facilitators to manage online collaborative classes (Witherspoon, 2011).

Furthermore, the American Association of School Librarians in 2011 has recognized among the top 25 web 2.0 that aided collaborative learning as well as fostering the qualities of innovation and creativity in learning (Habley, 2011). These tools are in the category entitled "Social Networking and Communication" (Habley, 2011). Edmodo has more than 6.5 million users and hosts online conferences entitled Edmodo.com with thousands of participants (Flanigan, 2011).

3.2 Blog as a Tool Facilitating Online Collaborative Writing

A blog is a short form of web-blog. It is a social networking service and general informational site published on the World Wide Web which consists of discrete entries classically displayed in reverse chronological order. The blog is an asynchronous Computer-Mediated Communication (CMC) from the family of Web 2.0 technologies, a very useful tool for teaching online writing (Karlsson, 2015).

The rudimentary system and emergence of Blogs began in the late 1990s and widely used in the 21st century, which coincides with the advent of web publishing tools that aid the posting of content by non-technical users. The blog provides an interactive forum for users that leave comments and share messages (Boyd, 2006). Hajiannejad (2013) posits that blogs allow learners to share their personal thoughts and ideas, and to meet and interact with people around the world. Learners are exposed to authentic uses of the language, stimulating and challenging them in ways that traditional classroom experiences cannot. However, Blog remains primarily a form of the collaborative platform where the software supports communication from one author to many readers (Klobas, 2006).

In an effort to provide an effective avenue for learning EFL via online writing, Bakar and Ismail (2009) studied the effectiveness of blogs in developing students' ability to write constructively. They found that students had positive attitudes about blogging and that social interaction helped students improve their writing skills. The students' level of proficiency in English was intermediate with some basic knowledge of computer skills. The students created their group blog and began the discussion in class. In order to participate in the discussion, they collected information from the Internet. The study questionnaires were distributed at the end of the semester.

3.3 Google Docs as a Tool Facilitating Online Collaborative Writing

Google Docs is a free web-based tool that looks like an online version of Microsoft Word that offers collaborative features which can be used to facilitate online collaborative writing. Blau, and Caspi (2009) state that Google Docs is another digital tool that includes the functions of blogs and wikis. It is a free web-based tool offered by Google that combines features of word processor and spreadsheet, presentation, form, and data storage service (Suwantarathip & Wichadee, 2014). It enables users to create, edit and store their documents online (Thompson, 2008). Meanwhile, it provides an extensive revision history of document edition which can help users to view documents as it appears over a time. An author can choose to revert to an earlier version. The Google Docs application permits access from any personal computer (PC) and facilitates the capacity to work together by offering a report to others as watchers or associates, or by distributing it on the web (Conner, 2008).

Moreover, Google Docs as web-based tool categorized under web 2.0 technologies, is very easy and fast to develop. It is a well-suited tool that can facilitate online collaborative writing that combines peer editing with cooperative grouping and small group. Sharp (2009) construes that the collaborative editing tools allow for collective editing of a document simultaneously by individuals while they can see the changes made by others in real time. This special feature of Google Docs makes 'a powerful program' that can aid collaborative writing especially, in the language learning classes. It is important as the learners can share documents and keep them online, that can be accessed anytime. Chinnery (2008) posits that Google Docs is a productive web 2.0 technology that offers a productive design of learning activities in creatively collaborative context. For instance, an instructor might post a text, intentionally replete with errors requiring his or her students to correct. On the other hand, students can easily collaborate to edit or peer-edit their writing using annotation bottom called 'editing trail' in Google Docs. Another editing feature in Google Docs is called 'chain storytelling', it is a special feature that allows for collaborative construction of story initiated by the teacher or facilitator whereas each learner will be asked to contribute in completing the story. Thus, we can say that Google Docs allows learners to work together on a common task without restrictions they are imposed in a traditional face-to-face contact (Conner, 2008; Perron & Sellers, 2011).

Furthermore, Google Docs is a web-based learning tool which helps to implement the learner-centered approach in a collaborative learning environment. In the same token to Wikis, Google Docs empowers collaborative learning which allows for peer editing of documents an archive composed by different users, and by proposing changes through remark composing, without altering with the content of the document (Suwantarathip & Wichadee, 2014). As Oxnevad (2013) states that document sharing using Google Docs provide students with opportunities to

receive immediate feedback. Meanwhile, learners can collaboratively create online materials that reflect what they have learned previously and their current learning experience by demonstrating associations between their previous knowledge, the course content, and their own encounters.

Since Google Docs is put away on the web, learners can work at school and at home from any PC with an Internet association, and they will probably return to their work in the event that they know another person will remark on it. To embed a remark, learners simply show some content in the body of the report and the remark will show up on the correct side of the page. At that point, they can tap on any remark and watch the featured content in the report change color to quickly pinpoint the suggested revision. Comments are smart and they disappear after the issue has been addressed by the author so students feel a sense of accomplishment as they work their way through the suggestions of their peers. In addition, Google Docs provides support for collaboration in real time so students and teachers can have a virtual mini-conference about the work in front of them from any location if the timing is right.

Again Google Docs allows for synchronous changing and remark composing and spares variants of the record, choices that bear the cost of collaborative learning. The Educational Edition of Google Apps is free; it was assembled particularly for schools, colleges, and charitable associations, and does not require downloading new programming or purchasing equipment (Oishi, 2007). Sharing substance utilizing the application is extremely straightforward, may encourage joint effort, permits peer audit of scholastic materials, and bears aggregate age of information (Blau, & Caspi, 2009).

3.4 Zoho Writer as a Tool Facilitating Online Collaborative Writing

Zoho Writer is Web-based office productivity application categorized as one of the popular web 2.0 technologies based on word processing tools. Zoho Writer is another web 2.0 technology introduced by Chinese based technology which 'enable multiple users to collaboratively edit the same document stored on a Web server synchronously with nothing but a Web browser at any time from anywhere' (Shen & Sun, 2011). Godwin-Jones (2008) describes Zoho Writer as is a web-based tool that enables editing, documenting and assessing writing online. It offers automatic production of online text, document templates, and direct blog posting from within the editor. In fact, most of the editors are specifically designed for creating posts to blogs or social networking sites. Zoho Corporation provides free Wiki service to support the full performance of potential value of collaborative learning (Li, 2014). The editable features of Zoho Writer provide learning efficiency to learners more than the traditional design process of websites (Li, 2014).

In Educational setting on the web office apparatuses like Zoho Writer and Google docs additionally, give methods for offbeat correspondence for numerous clients (Hodges & Hunger, 2011). Tutors can set collaborative online course. By doing that, they can without much of a stretch satisfy the errand of students clients and investigation course of action, pull in understudies to do application hone by direction on learning, apply different application segments to satisfy community oriented educating amongst understudies and educators and submit an appraisal of examination reports between understudies instantly; besides, understudy site hit and premium degree on segment can be straightforwardly gained through page activity measurements and investigation capacity to idealize the assessment of instructors on shared learning outline.

3.5 Wiki as a Tool Facilitating Online Collaborative Writing

Wikis is one of the One of the most popular Web 2.0 technological tools used in education especially in higher education. It plays significant roles in promoting communication and interaction among students or between students and teachers (Cilliers, 2017). Wiki sites allow for co-authored of editable and accessible files by a group of users. Wiki files are flexible and allow simultaneous editing via the web browser. They allow for writing online a text in collaboration (Biasutti, 2017). Klobas (2006) construes that wikis refers to web-based tools that enable collaborative communication among the internet users in both large scales like in the case of wiki-based encyclopedias, and small-scale as in the case of wiki sites managed by close users taking on collaborative projects in their particular area of interest. The first wiki was the Portland Pattern Repository, developed by Ward Cunningham in 1995 (Teehan, 2010).

The word wiki is derived from the Hawaiian word that means quick. This term is applicable if we look at the basic principle of the wiki as a Web site that can be quickly created (Teehan, 2010). As a collaborative site, wiki contains "web pages designed to enable anyone who accesses it to contribute or modify content, using a simplified markup language" (Mitchell, 2008, p. 1). Wikis can be the most effective internet tools used for educational purpose 21st-century era where world become a social global village in which people can collaborate interact via the internet (Teehan, 2010). Wikis are amazingly web-based collaborative tools that make use of 'a simplified format language', quick to create with 'no special software or web skills are required' (Allwardt, 2011). Whereas the basic word processing skills are enough for users to create or manage a wiki site (Heng & Marimuthu, 2011).

A wiki is a web-based tool that encourages online collaborative writing among the group of students. Using wiki site students can create editable file providing new information concerning ones are of interest or matter of discussion. The information displayed on a wiki is content oriented that is the is made based on the content rather than chronology as in the case of other social sites in web 2.0 categories like Blog and Facebook (Chao & Lo, 2011; Slotter, 2010). Furthermore, the wiki is considered as a significant collaborative tool that enables the students to actively participate in the content creations process, promote critical thinking, collaborative learning, and communication (Beldarrain, 2006; Usluel & Mazman, 2009).

3.6 Facebook as a Tool Facilitating Learning

Regarding the role of Facebook in facilitating English as a second language (ESL) or English as a foreign language (EFL) learners' learning, especially at university levels, studies emphasized that by using Facebook, learners can create new groups or join existing ones as online communities (Ellison, Steinfield, & Lampe, 2011; Razak, Saeed, & Ahmad, 2013). They can also observe the activities of these groups to which they belong through the track feature (Lampe, Wohn, Vitak, Ellison, & Wash, 2011). Learners can also engage in creating learning content and sharing it with a potentially global audience (Duffy, 2011). Another feature of Facebook is the commenting facility through which learners can comment on one another's post. Being integrated into classroom-based courses, Facebook can assist ESL learners in their writing process (Haverback, 2009; Majid, Stapa, & Keong, 2012).

There is also an extensive use of Facebook among learners as part of their out-of-campus or university practice of English (McCarthy, 2013; Vandoorn & Eklund, 2013). Facebook enables EFL learners not only to learn that language but also its culture (Mitchell, & Chandra, 2012). Yet, there are several aspects of weaknesses of such SNSs including learners' gradually diminished participation and control of their learning (Grandzol & Grandzol, 2010), distraction caused by many other posts and comments irrelevant to learning, and learners' tendency to use short forms and abbreviations that might affect their writing (Yunnus, Salehi, & Chenzi, 2012). This suggests that learners' use of Facebook for learning will not ensure effective learning without instructors' facilitation and other peers' support in the learning activities.

4.0 The Implications of the Study

The use of the Internet in the 21st century is pervasively trending with applications of more social sites coined as Web 2.0 technologies in educational and business contexts. Under this brand online document collaboration tools such as Google Docs, Zoho Writer, Edmodo, blog and many others are becoming increasingly popular, especially in educational settings. However, this is not free from back tack implications. This is one of the reasons why still web 2.0 technologies are not formally enacted in most of the curriculum. One of the challenges with web 2.0 technologies is that some of them cannot replicate a face-to-face traditional collaborative learning. For instance, Wiki pages can be made to look like blogs pages, but they don't come out of the box with all the pages needed to automatically write and publish blog entries. Blogs are usually focused on one-to-many communication, but wikis are more oriented to many-to-many communication about shared content (Woods, & Thoeny, 2011).

Another implication of using web 2.0 technologies is time management. As Allwardt (2017) states that among discussion group participants, time management was the most problematic issue reported. Some students may be frustrated when some members of the group were inactive until just before the due date approached and that group members did not reply to their postings in a timely manner.

Managing sites might be confusing to inexperienced students that have less expertise on the computer. In this case group coordination and management, individual feedbacks may be difficult by peers or tutors in the case of some collaborative tools. Complicated to get the appropriate sites for consumptions we advocate for the use of mind maps as an accessible notation for describing web 2.0 and we suggest tutors adopt the Unified Theory of Acceptance and Use of Technology (UTAUT) to investigate the effectiveness of web 2.0 technologies prior to their selection of tools.

Dealing with the negative effects of the online collaborative tool: Towndrow and Kannan (2002) argue that the "negative experiences in using collaboration tools are not always technological in nature" (p. 78). They suggested that 'collaborative online experiences, individuals, irrespective of specific task objectives, collaborate best when they start on the basis of shared knowledge and interests. This precondition can be met in two ways: (i) when online collaborators build on the edifice of prior face-to-face working relationships; and (ii) when inputs from collaborating partners are balanced in terms of vision and effort'.

5.0 Conclusion

The aim of taking this overview was to give an overview of six major web 2.0 technologies most capable of providing online writing in blended or virtual online classrooms. Internet users were busted in the 21st century whereas various social media sites popularly known as Web 2.0 technologies have prevailed in almost every aspect of people life, business, economic and more especially the educational endeavour. The concentration on this paper was centered on the application of six of the popular web 2.0 tools that support online collaborative writing. The tools included in this paper include: *Edmodo, Google Docs, Zoho, Blogs, Wikis, and Facebook*. As observed in this paper, various social sites that are classified as Web 2.0 can be used for different purposes, however, they all allow for online interaction by either closed group's user, or public groups of users of that have access to the internet.

Therefore, the recent call for more insightful investigation of web 2.0 technologies such as wiki, blog, or Facebook from the participants' contributions to these communities suggests the importance of exploring how online learners, especially those who are still new members, describe their learning experience from the perspective of their membership level after a period of time.

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