

Use of Sociable Networking sites as a Teaching tool in Online Classrooms

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Abstract - Blended learning has become an efficient teaching method, and it is being adopted by prestigious institutions of higher education all around the world. Blended learning combines face-to-face instruction with online resources for a more comprehensive education. Increases in the proportion of young adults enrolled in Haryana's universities can be noticed dating back at least a decade. They become extremely proficient in the use of the Internet, social media, and mobile devices. These days, including social media into blended learning is a must. The paper uses a well-known approach, Virtual Learning Environment (VLE), to improve upon e-learning generally. We use the Virtual Learning Environment (VLE) dashboard by integrating the Web-based Synchronized Multimedia Lecture (WSML) framework, which allows for the provision of an authoring tool to record the temporal and spatial relationships among the media involved and facilitate synchronise presentation across media access. This architecture is useful because it facilitates online classroom-style collaboration in real time between students and instructor(s). Incorporating features of web 2.0 and social media, a VLE allows users to hold meetings through video chat in real time and share and discuss media files with ease. The article's intended result is a social-media-based learning system that can be used in universities to spice up the monotony of conventional blended-learning settings.

Keywords - Virtual Learning Environment (VLE), Web-based Synchronized Multimedia Lecture (WSML), Blended learning.

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1. INTRODUCTION

The popularity and use of social networking services have skyrocketed in recent years. Still, research into the potential benefits of social media for learning is scant (Ryan et al, 2011). Social networking sites (SNSs) have been at the forefront of conversations revolving around the use of technology to assist and amplify educational endeavours due to their potential to encourage engagement, communication, and collaboration (Greenhow, Robelia, & Hughes, 2009). Despite the growing popularity of social software in academic settings, there is a dearth of empirical study on their function in supplementary education (Schroeder, Minocha, & Schneider, 2010).

With over 500 million monthly active users and an estimated growth rate of 105 percent between 2008 and 2009 (Facebook, 2010a; comScore, 2010), FacebookTM is clearly one of the most widely used SNSs today. Because of its widespread adoption

among university students, it has been recognised as a promising instructional resource. "Facebook TM is student-friendly, student-centered, and student-controlled," writes Bowers-Campbell (2008, p. 82), "the social character of Facebook TM welcomes involvement rather than mandating it." Furthermore, Charnigo and Barnett-Ellis (2007) state, "by studying new sorts of Internet services such as Facebook TM instead of hastily discarding them as ir-relevant, we might learn new ways to reach out and engage with a wider percentage of our [academic library] customers" (p. 31). This makes it an ideal opportunity to investigate the potential of social networking sites like Facebook TM for use in teaching. Our goal is to investigate how students' participation in social networks affects their use of social technologies to enhance their education.

Students' increased reliance on social media has prompted educators to rethink their approaches to instruction, but there hasn't been enough study of

how sites like Facebook and Twitter may be used as collaborative learning resources in the classroom.

Technology in the modern age is being used more and more frequently outside of the classroom as well. So, it's crucial to welcome the benefits of modern technologies and incorporate them into the classroom (1). E-learning, defined as a "learning process that takes place over the Internet and makes use of Internet technology in its many stages of development and delivery," stands to significantly enhance the effectiveness of education in the future. With its many benefits including adaptability, variety, assessment, openness, and so on, e-learning is poised to become the dominant mode of education in the 21st century. Today's models for e-learning rely on a foundation of infrastructure that dynamically allots the resources (such as computers and data storage) required for such endeavours. The health and success of the e-learning system is directly tied to the quality of its underlying infrastructure (2).

67% of students surveyed by the Educause Center for Applied Research (ECAR) (2012) on Mobile IT in higher education believe that mobile devices are important to their academic success and use their tools for academic activities, and they actively promote the use of mobile computing devices like cell phones, smartphones, and tablet computers in the classroom. Expanding the availability of mobile computer devices on college campuses may open up new avenues for students interested in using stability and social media as a teaching tool.

2. REVIEW OF RELATED LITERATURE

2.1. E-learning

E-learning, or distance learning, is the process of acquiring knowledge and skills through the use of electronic educational resources. Learning is carried out through the information and communication system, whether it is networked or not. Even when advancements are made in devices and curricula, this typically entails educational experience outside of the classroom and in the classroom through technology (1). The rapid growth of Internet-based technology/innovations has resulted in many approaches to learning development, manifested in various forms of e-learning (4); E-learning systems are defined as learning technologies that use web browsers as a tool for interaction with learners and other systems, where the system works as a platform to facilitate teaching and learning (8).

2.2. Social Networking Sites

In this context, "social media" refers to any and all online communication and collaboration tools. Internet-based platforms that facilitate user-to-user interaction are collectively referred to as "social media," and they include social networking sites like Facebook and Twitter as well as video-sharing websites like YouTube. Social, political, and educational spheres can all benefit from the new modes of communication and cooperation made possible by these sites (9). It's now much easier for people to use social media tools to help them acquire access to diverse sources of useful information (10). Millions of people throughout the world rely on social media to stay connected with friends and family, find entertainment, and further their careers. One large demographic of young people who use the internet is students. Students' online activities have evolved from simple information research to include more interactive content production and dissemination thanks to the rise of social media. This shift has implications for the ways in which technology is used to facilitate instruction and student learning (11).

2.3. Blended learning

Blended learning, in which online resources are used in conjunction with conventional classroom instruction, is increasingly popular in higher education (12). Universities are spending a lot of money on e-learning systems because of recent advances in Internet technology (13). Both closed tools like learning management systems and open systems like social networking sites are available to teachers, who can make their own personal choice based on their own values. The importance of studying how educators decide whether or not to use new technology grows in tandem with the proliferation of such tools (12). The purpose of this research is to have a conversation about how to use a virtual learning environment (VLE) to facilitate online education.

2.4. Internet-based Service

Web services provide simple methods and well defined interfaces by utilising a collection of Internet-based modular applications. In addition to facilitating the use of standard protocols, it also facilitates the automatic communication between different operating systems or applications over the Internet (14). Use of computer and mobile phone access to online education is discussed in this article. According to a breakdown of key Internet protocols for online services provided by Sung (15), these are: Two or more service-providing applications can communicate with one another using the Simple

Object Access Protocol (SOAP); the Web Service Description Language (WSDL) is used to describe the service's functionality and ensure that all parties involved are on the same page; and UDDI (Universal Description, Discovery, and Integration) is used to make web services' content available to the public online. UDDI (Universal Description, Discovery, and Integration) is a web service that helps e-learning system stakeholders locate relevant e-learning services; (4) XML (Extensible Markup Language) is a data exchange standard that facilitates the transfer of information between various platforms. Data from several sources, including a structured database, multimedia files, and social media posts, can be combined into a single XML file with the help of web services in an e-learning system.

2.5 The Importance of a Virtual Learning Environment for Online Instruction (VLE)

Virtual learning environments (VLEs) exist on the internet, and their purpose is to make educational resources like games and quizzes more accessible to students and teachers (7). The most fundamental elements of a virtual learning environment (VLE) include the institution's website, search engines, electronic documents, electronic databases, electronic storage, electronic mail, instant messaging, video conferencing, and social networking. With a virtual learning environment (VLE), instructors can give students assignments that they can work on at their own convenience, and students can take part in both real-time and asynchronous discussions to further their understanding of course material (7). Different kinds of social interaction are typical in online virtual learning environments (16) due to their development over the past decade (17).

3. FORMULATING VIRTUAL LEARNING ENVIRONMENT (VLE)

In this article, we take a look at how the VLE framework is being used in North Sulawesi at STMIK Multicom Bolaang Mo:ngondow (MBM). A popular choice among North Sulawesi students, STMIK MBM opened its doors in 2003. This is an example of the term "Virtual Learning Environment" (VLE):

3.1. Process of Virtual Learning Environment

Five main parts make up the Virtual Learning Environment (VLE) design:

1. Access for lecturers;
2. The student as user and learner of the system;

3. Web service and social media tools;
4. The administrator, who oversees the entire learning process; and
5. The VLE itself, which is displayed in a dashboard and enables the integration of all students and lecturers.

With the Web-based Synchronized Multimedia Lecture (WSML) technology, we implement the VLE dashboard (18). When paired with static HTML pages and other forms of textual media, the WSML system enables the integration of dynamic forms of media such as images, graphs, streaming audio/video, and animated navigation events. The Web Services Markup Language (WSML) allows for simultaneous displays and media integration (19). There are three servers that make use of the WSML framework, and they handle things like serving HTML pages, playing audio/video, and hosting events, respectively. Before a professor can use media in a presentation, they must be saved to the AV server. Recording and storing relation events on the event server is a function of the authoring tool, which is used to document connections between media items and navigation events using a global timer. The XML-formatted learning materials can be rendered by the VLE developer using JavaScript and dynamic HTML for display in a web browser. It's not always easy to upload large media files, as we need a stable internet connection and a lot of bandwidth to do the rendering.

To name a few parts of the WSML system framework:

1. An audio/video encoder, for archiving and playing back instructional media;
2. To log the time and date in the temporal information logger, we need a second timer.
3. The logs of navigational events include a spatial information activity log that synchronises audio and video with an XML page;
4. Event detector, follows the teacher's lead;
5. Lecture notes in HTML format, a static web page prepared by the lecturer;
6. A document parser, which takes a static HTML page and converts it into an XML file for storage in a spatial information extractor;
7. The spatial information extractor aggregates data in XML format from various external sources (student portal, search engines,

online documents, databases, IM, video conferencing, and social networks) and instructor events.

Instructors and students can work together in the same virtual space by accessing the VLE from any Internet-connected device, such as a desktop computer, laptop, smartphone, or tablet. Through a dedicated web service page, the VLE dashboard was also able to collect article data from social media platforms including Facebook, Twitter, and YouTube.

3.2. Recommendation: Socially Distribute This Link

What follows is a depiction of how VLE handles shared links: (1) Instructors and students alike contribute to the learning process via social media by sharing links to articles they have written. The administrator must first determine if the content of the links being shared is suitable for educational purposes; (2) if so, the administrator will then issue a notification, and both students and teachers will be able to access the content (s). Keeping track of the time is an integral component of online participation and serves as proof of attendance for both the instructor and the students. This allows the professor to track which students actually read the assigned materials. For students to be actively engaged in the learning process and benefit from the advantages of a mixed-mode learning environment, in which some course materials and instruction are only available online, they must engage in some form of online activity (20). (21).

Forums, social media post embedding, video and audio for educational purposes, and even student assignments and quizzes can all be found in the VLE, where students and teachers can interact. It is the responsibility of the admin to check the validity of any articles that will be distributed to students or teachers. The administrative function also included monitoring of the social media training process.

4. DISCUSSION

4.1 Use of Social Media as a Teaching Tool

E-learning has arisen as a means to provide knowledge to professionals in a more adaptable, user-friendly, and learner-centric format (22). Using a hybrid approach that combines online courses with in-person instruction and social media, students can ask questions and get answers just as quickly as they would in a typical classroom setting (21). Individuals may hold a variety of views on the topic of social media consumption. Certainly, it is impossible to go into exhaustive detail about every facet of students' social media use. Existing media have many potential

applications for improving educational settings (21). Many research have looked into how Facebook may be used to build and sustain relationships (11). Most of what has been written about using social media to enhance the classroom experience at the university level emphasises the positive effects these platforms can have on instruction and student outcomes. However, these gains will not materialise if neither students nor teachers make efficient use of the resources in question [20].

One defining feature of personalised platforms is an uneven distribution of data. With the advent of Web 2.0, social network users can now take advantage of consolidated hubs. Web users connect with and learn from one another via public online social networking sites, much as they would in a real-world setting. Web 2.0 is all about bringing people together and encouraging them to work together by sharing information and ideas. This quality is valued more highly than merely participating in a public debate. In Web 2.0, the emphasis is on content generated by users, and the communication between users is not necessarily directed toward a specific end. Since "Web 2.0" has become so popular so quickly, there will soon be a new wave of e-learning that integrates with the world of social media. Several tools made possible by social networking platforms have numerous applications in education.

Users, according to (Howe, 2006), see the web first and foremost as a service delivery platform. These are the two most notable characteristics of the Web 2.0 era. As an excellent illustration of the Groundswell phenomenon (Li & Bernoff, 2008), Facebook serves dual purposes as a service delivery platform and a repository for groupthink. Facebook emphasises the individual user as the hub around which data is organised. Attractive because it increases people's capacity to communicate and form social connections with one another, Web 2.0 and social networking technology paves the way for the emergence of new communities of practise based on shared interests and goals.

4.2. The Effect of Social Media on Education

Both good and bad results can be obtained when using social media for educational purposes. The creator of an e-learning system needs to think about these consequences.

4.2.1 A beneficial result

Students can create, manipulate, and share information online, communicate and exchange opinions, connect with each other, establish social

networks, and create communities for diverse purposes with the use of WSML and social media, all while participating in educational online communities. Students can connect with others in their field of study and take part in the creation of new knowledge through the use of social media. Students have the unique ability to gain knowledge from their fellow classmates in the online learning community (9). When assessing their own learning, students tend to look at the big picture rather than focusing on minute facets of their own course material.

A good judgement of learning is not primarily determined by whether instruction took place in a traditional classroom, online, or some combination of the two, nor by the specific technology used. When reflecting on their academic experience as a whole, students rarely factor in the pedagogical style of their instructors. Instead, they share their global outlook and/or how they felt about the course as a whole (23). Students can improve their interpersonal and communicative skills through the usage of WSML and social media. Moreover, students may instantly retrieve course content and access information thanks to the comfort of constant connectivity provided by web access and social media platforms. Students mostly utilise social networking sites for educational purposes because of the ease with which they can engage with and receive support from classmates, as well as easily locate and share knowledge (11).

4.2.2. The negative effects

When compared to in-person communication, online exchanges lack non-verbal clues, which can limit how much is really communicated. Misunderstanding is another drawback, since it arises from a lack of emotional interchange, a failure to convey tone of voice, body language, and eye contact, and the absence of other crucial elements that are present in face-to-face conversations. This set of barriers can be broken down with the help of WSML and social media. Learners could not feel that their peers are available or that the medium was regarded as accessible at times when they need it, especially when there are technical difficulties, especially in producing A/V content (21). However, there is no evidence to suggest that repurposing social media for educational purposes will automatically increase students' motivation and interest. One reason why some individuals love using social media is because it allows them to pursue their own unique passions while also maintaining connections with their friends and family. Incorporating the tools they use every day, such as social networking, is something students actively seek out in today's educational environments.

5. CONCLUSIONS AND PROSPECTS FOR FURTHER STUDY

Many educational institutions throughout the world are investing resources towards the expansion of e-learning. Students can take advantage of the progress in technology in a number of ways, and e-learning is one of them. Important in the deployment of e-learning in the VLE is the role of lecturers and administrators and the support to progress web technologies. Facilitating efficient two-way article sharing between professors and students. The purpose of administration is to double-check the accuracy of the articles that are sent out to professors and teachers before they are sent on to students and classrooms. Articles selected for inclusion in an e-learning system can help ensure that its intended functions are being met.

One of the most successful e-learning strategies, Virtual Learning Environment (VLE) with WSML enables students to gain all the benefits of online learning while simulating the experience of learning in a traditional classroom. Using an e-learning system in a new way is necessary because today's students are millennials who grew up with the Internet, social media, and smartphones. For this generation, which has grown up with the Internet and social media at its fingertips, the tried-and-true methods of online education are seen as inadequate. Both the instructor(s) and the students can benefit from a more interactive and engaging class by utilising the web and e-learning tools.

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