

AN OVERVIEW ON THE INTERNET IN THE LEARNING CONTEXT

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ABSTRACT

The Internet might have been many people's best friends but there are also people who are still in the introduction stage of using the Internet. The Internet might become hype for them that they are not aware yet of the potentials and the harms lurking behind the glitters of the Internet. Thus, this paper is meant to provide general information on both the positive and negative side of the Internet in terms of educational context.

Worshipping the Internet or having a skeptical position toward the Internet is two extremes that should be avoided. The Internet users should be critical and wise in using this piece of technology. In other words, they need to become 'informed' users of the Internet. Therefore, some possible solutions are also presented in this paper in order to make the best use of its potentials while focusing every effort to minimize its harms.

Keywords: The Internet, learning, constructivism, teacher professional development

INTRODUCTION

Internet usage around the world is growing sharply (OECD Broadband Statistics, 2005). In the field of education, its application is also increasing every year. The National Center for Education Statistics in its survey in 2003 indicated that almost 100 percent of public schools in the United States have already accessed the internet, a drastic change compared to 1994 where it was only 35 percent of public schools that had accessed it. Internet connection inside classrooms also shows a sharp increase, from 3 % in 1994 to 93% in 2003. In Indonesia, Internet users are growing at a rapid rate. A survey conducted by the Worldwide Internet Users in 2006 mentions that from the top 15 countries in the world that use the Internet, Indonesia ranks the 13th. More and more educational institutions in Indonesia are connected and the numbers are increasing. The Indonesian government also encourages the use of the Internet in schools with the objective of improving the quality of learning.

These figures inform that despite there are people who are skeptical with this new technology to be implemented in educational sectors because of its negative sides, its promise is more overwhelming that makes internet becomes favorable. Internet has affected society in many aspects of their life. This paper aims at illustrating both positive and negative aspects of the Internet in the contexts of learning. It is meant especially for those who are new to this field and want to know the basic considerations in using the Internet in an educational setting. Considering the limitation of this paper, only general issues related to internet used in school education is discussed here. The first part of the paper, then, focuses on arguing the advantages of internet. Its disadvantages are discussed in the second part of this paper. Next, some possible solutions are offered to minimize its drawbacks while making the best use of its potentials.

THE INTERNET: THE PROMISES

Internet was originated from ARPA project founded by The U.S. military department of defense (Pentagon). It started with only 4 connected computers in UCLA in 1969 which enabled researchers involved in the project to share notes and to discuss their work long distance over the computer connection (Sterling, 1993). It grows at a great rate afterwards. The internet is not only seen as elaborate infrastructure to transmit, receive and manipulate information but also "as a range of technologically-mediated spaces of communicative practice that are amazingly diverse" (Lankshear et al, 2000, p.20).

There are some advantages of the Internet in terms of learning. First, it brings a lot of changes to the way people learn and the knowledge transfer processes. In conventional way, teachers are seen as the only source of information, the know-all person, while students are the 'empty-vessels' who need to be poured with knowledge (Higgins 1988). It can no longer work that way in this internet era. The Internet is believed to support the learning principles of constructivism. In constructivism, learners construct their own knowledge individually and socially. They make sense out of their world by taking in

information from the environment and assimilating it into their pre-existing schemas and understandings. Learners are prepared to be capable of problem solving without depending so much on the teachers (Brown, 2000).

As for foreign language learning, the Internet provides learner with authentic materials which are seldom found in the traditional classroom context. These materials range from written to audio-visual materials written by or spoken by native speakers of the language. Learners' productive skill in using the target language can be practiced by using Internet facilities such as e-mail and Instant Messaging where they can communicate with native speakers or other language learners in real time.

Next, the Internet gives access to myriad of information. It is difficult to get an exact number of how many information available in the internet since anyone in any part of the world can write a webpage and publish it in the internet. The number of Web pages, then, increases every minute. There seems to be billions and billions of information there in the internet. Students that have access to internet can find any information they want, they will become more knowledgeable in a certain topic compared to their teacher. Spender argues that "the gap between what teachers know and what is electronically produced is forever widening" (Spender 2000, p. 102). Howley reports several studies that show low teachers' interest in reading, "teachers read no more, and probably less, than the average middle class person (approximately three to eight books per year) and that their reading tends overwhelmingly to be popular material rather than scholarly or scientific work" (Hodas, 1993). Students, therefore, should no longer entirely depend on their teacher to obtain knowledge. Internet which also offers a range of global communication practices such as e-mail, newsgroup, mailing list, and instant messaging provides enrichment for students to learn collaboratively with other students. Since now information is in the ether and not only stored in books, in teachers' head or inside library building, internet also provides flexibility in learning as students can learn in their own preferred time, place and pace; thus, promoting authentic, autonomous and life-long learning.

Teachers can also take the benefits of the internet in order to maintain their professional development. There are a lot of websites dedicated for teachers on teaching materials, syllabi, or teaching techniques. They can also use the newsgroups, e-mail and instant messaging facilities to share experiences, solve problems and work collaboratively with other teachers. Schools can run efficiency in terms of their administrative matters as they can put information in their websites thus making communication among schools, teachers, students, parents and other stake holders becomes easier (Grey, 1999; Ellsworth, 1994).

In learning, motivation is a key component. The internet facilitates multimedia technology which has the advantage of increasing motivation in learning. Clark, 1983, 1985; Clark & Craig, 1992; Kulik, Bangert, & Williams, 1983 report that multimedia material appears to generate motivation because of its novelty; however, they may fade away once familiarity is developed (Najjar, 1998). Watts and Lloyd (2001) investigate the

intervention of a multimedia form of ICT in classrooms and find out that the pupils becomes active, self-directive and exploratory learners who enjoy the freedom and control permitted by the system. Even though those studies show increasing motivation among young learners and novice users of this technology, an hour of simulated biological concept of human body streamed over the internet is surely more interested to high school internet-savvy students than one semester monologue on the same subject from the classroom teacher.

THE INTERNET: THE RISKS

Despite the above promises of the internet, there are some problems as well. With the information superhighway in the internet, learners may get lost in the large amount of information. Spending long hours in front of computer screen without knowing which information to choose can be a disheartening experience for the students. In addition, some students might not know how to judge the credibility of the sources of those information. Almost everyone who is familiar with using the Internet can post almost anything, some are valuable, others are misleading. For example, there is a Web site in the Internet about the city of Mankato, in Minnesota, the U.S. The Web site has a nice picture of blue ocean, white sandy beach, sun-shine, a swimmer relaxing and sun-tanning on the quiet beach. There is a paragraph giving readers 'scientific' explanation why Mankato stays warm in the winter while the rests of Minnesota are cold. A true geologist can proof that there is no earth phenomenon as the Farr/Sclare Fissure as described in the Web page. This site has drawn people attention, reaping confusion among travel agents who need to answer people's questions about lodging and traveling to Mankato. The fact is Mankato is as freezing as the other city of Minnesota! (Gurak, 2000).

How to process information they get from the Internet possessed another challenge. Students might just copy and paste the information without realizing that they had done plagiarisms and copyrights breaching. Sexually explicit sites and other illegal sites also exist as well as hoaxes and viruses which can be easily transferred via e-mail attachments or instant messaging (Grey, 1999).

The convergence of technology may be used more in the recreational purposes by the students than in the educational purposes. Since communication is open wide, students may not concern about their personal security over the internet. There are lots of different kinds of people out there who can be good or bad.

When students like working online, they spend a great amount of time in front of a computer. Wang (2005) and Russell & Russell (1999) mention that several studies argue that the Internet has a negative impact on the social relationship of its users (e.g. Kraut *et al*, 1998). A study conducted by Nie & Erbring (2002) on American people finds out that "the more time people spend using the Internet, the more they lose contact with their social environment" (p. 275). Working a lot with computer can also cause physical and psychological problems. Headache, muscular pains in hands and neck, eye problems and

addiction to the Internet may occur (Rittschof & Griffin 2003). These limitations will turn internet from becoming a means to enhance learning into a means to distract learning.

The curriculum, teaching and assessment methods require adjustment if the internet is to be used in classrooms. In addition, teachers should be equipped with technological skills. And as always the case with technology, its use in particular educational settings may become unpredictable as power failure, system crash, no connection or connection down do happen. Teachers may not be ready, capable, or willing to embrace this technology (Hodas, 1993).

THE INTERNET: MAKING DYSTOPIA INTO UTOPIA

These limitations have put some people into doubt as whether the internet is useful at all to be implemented in schools. But the fact that its use in the household and educational settings keeps increasing each year has made some people predict that the internet will become indispensable in the future (www.electronic-school.com). The "decentralizing, globalizing, harmonizing, and empowering" characteristics of the internet have made it grows (Negroponte, 1995, p. 229). It is wise then to acknowledge its potentials while focusing every effort to minimize its harms.

If schools wish to integrate the Internet in the learning and teaching processes, they must provide adequate information literacy training for their students so that they are able to operate the Internet to process information in order to solve problems and make decisions. Research strategies, evaluation skills and communicating information are therefore a crucial part of the training. Additionally, Programs to raise students' awareness of their safety in the internet should be promoted. Parents may be involved in such programs. An example of such program is i-SAFE America which was established in 1997 to give trainings to schools on how to use the Internet safely and responsibly. Its curriculum includes topics like "Living as a Net Citizen in the Cyber Community", "Personal Safety as a Cyber Citizen in the 21st Century" and "Plagiarism and the Theft of Intellectual Property" (McKinley, 2002). Schools should also address the equity issue related to the use of technology and endeavor that all their students and teaching and administrative staff have equal access to the technology.

Teachers should be supported by providing professional development packages that cover those information literacy skills, how to teach these skills for their students (Vine, 2006; Adler, 1999). Included in the packages are assessment methods, a new set of pedagogical methods which are based on the constructivist and constructionist approach (Fosnot 1989; Romeo 2000), a monitoring system in order to ensure that students use the Internet mainly for educational purposes rather than for recreational purposes, a guide to conduct a physical relaxation program in the classroom and how to prevent internet addiction.

Regarding claims about the Internet can cause learners to become isolated or antisocial, Katz & Aspden (1997) discover that "there is a greater richness of friendship" build over the Internet (Russell & Russell 1999, p. 10). It is then up to the teachers to design learning tasks which require students to engage in a project that need a certain amount of collaboration work. Thus, giving the students chances of social interaction. This kind of engagement is believed to promote learning as well since studies show that learning stimulated by audio can yield to 20 percent retention rate, 30 percent by audiovisual stimulation and 60 percent in interactive multimedia presentation where learners are really involved (Vaughan, 2004).

An incentive package should also be provided for teachers which may take the form of, for example, long-term loan with lowest interest for buying a computer to be used at home (Grey, 1999), or award policy. Help from school's technicians should be made available whenever teachers or students meet technological failure.

Of course, these efforts require willingness from all elements of schools (i.e. school principal, teachers, staff) to change their traditional mindset about teaching and learning. It needs a holistic approach to use the Internet to enhance learning. Therefore, those who believe that this technology has not been used effectively should not merely blame teachers or schools. For teachers and schools are parts of a structure which exists within a larger structure that together they build a system. Each component of the system has its share and responsibility to make the system works well. Thus, supports from the schools' stake holders, the government and the society are crucial in order to achieve the potentials of the Internet to enhance learning.

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