

# THE ADVANTAGES AND CHALLENGES OF INTERNET FOR HIGHER EDUCATION

**Habiburrahim**

*Dosen pada Fakultas Tarbiyah IAIN Ar-Raniry, Banda Aceh*

## **Abstract**

*In the new millennium, the internet plays an important role in improving the quality of education. Internet has become one of the means of communication, discussion, and even exploration of varieties of information from and between different worlds. In the world of education in the West, for example, the internet is used as a means of transforming education, especially by those who are dealing with the limitations of time and geographical location. The internet allows students and professors to communicate and coordinate with each other on the progress of the research they are doing. The internet, through its search engines, also has made it easier for education person to find diverse scientific literatures. Thousands of books, studies, research articles, reports and scientific papers are now available online. However, behind the ease and benefit of the search engines, educational practitioners scrutinize the implications of the use of the internet to the world of education. The internet is often misused or used as a medium to perform a variety of crimes. Stealing other people's private information and money, provocation and scorn as well as accessing pornographic sites are a few number of examples that are always connected to the use of internet. The issue of infringement on intellectual property rights and other plagiarism is also very often associated with the misuse of the internet today. But this particular article describes the benefits of the internet through search engines, potential challenges, and benefits for higher education.*

## **Abstrak**

*Di era milenium, internet berperan penting dalam meningkatkan kualitas pendidikan. Internet telah menjadi salah satu sarana komunikasi, diskusi, dan bahkan eksplorasi beragam informasi dari dan antar dunia yang berbeda. Dalam dunia pendidikan di Barat, misalnya, internet digunakan sebagai alat transformasi pendidikan, terutama oleh mereka yang berhadapan dengan keterbatasan waktu dan letak geografis. Internet memungkinkan mahasiswa dan professor untuk saling berkomunikasi dan berkoordinasi tentang suatu kemajuan riset yang sedang mereka lakukan. Internet, melalui mesin pencari (search engine), juga telah memberikan kemudahan bagi pencari ilmu untuk mencari beragam bahan bacaan. Ribuan buku, hasil penelitian, artikel, laporan dan karya ilmiah sekarang tersedia secara online. Namun, di balik kemudahan dan manfaat dari mesin pencari ini, para praktisi pendidikan mengkritisi implikasi dari penggunaan internet terhadap dunia pendidikan. Internet sering disalahgunakan atau dijadikan sebagai salah satu media untuk melakukan beragam kejahatan. Mencuri informasi dan*

uang orang lain, menghasut dan menghina, serta mengakses situs porno adalah sebahagian kecil dari contoh-contoh yang selalu dihubungkan dengan internet. Isu tentang hak intelektual dan kejahatan akademik lainnya juga sangat kerap dihubungkan dengan penyalahgunaan internet dewasa ini. Namun artikel ini khusus memaparkan keunggulan internet melalui mesin pencari, tantangan, dan manfaatnya bagi pendidikan tinggi.

**Key Words:** *internet, higher education, student.*

## INTRODUCTION

It is unarguable that the advanced technologies have provided tools to reconstruct education as we undergo dramatic technological revolution and enter a new millennium. Multimedia technologies such as CD-ROMs, Internet, and World Wide Web (WWW) produce uncountable novel resources and materials for expanding education. Information and communication technology (ICT) that has been evolved nowadays plays profound roles for globalization in which national borders are blurred by instant interactions, communications, and even information sharing.

In this global era, the world boundaries seem to be diminished. One action that occurs in a corner of a globe can be easily known and watched by other people living in other countries. Assisted by various sophisticated technological devices, people from different parts of the world, sometimes of continents, are able to share a series of information, sciences, knowledge, and other valuable research findings and inventions. Furthermore, in educational world, the Internet plays a paramount role. It is utilized as an extension of the classroom or as a vehicle for higher what does this mean education, is becoming increasingly widespread. The Internet is now being used as a powerful supplement to the traditional ways that students study and learn in lecture halls, tutorials, laboratories and in the preparation of assignments.<sup>1</sup> There is a very close fit between the structures and processes of the internet and the structures and processes of teaching and learning in the university's traditional forms of education.

In addition, the Internet provides access to unlimited sources of information and search engines are continuously being upgraded to provide efficient ways to

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<sup>1</sup> Hammer, R. & Kellner, D., "Multimedia pedagogy and multicultural education for the new millennium", *Current Issues in Education*. 4(2), 2001.

help users find what they want. Libraries are using the Internet to create gateways to what has been termed a massive library system, where people can roam through the electronic equivalent of book stacks via a desktop workshop. The electronic equivalent offers the ability to integrate text with charts, graphs, photographs, sound, video and other forms of multimedia.<sup>2</sup> Librarians are now playing a vital role in identifying, evaluating and making available quality electronic documents. Indeed, all these technology advancements can bring both benefits and negative impacts toward pedagogical development worldwide. The primary purposes of this essay are to analyze the implications of internet and search engines implementation, especially Google, Yahoo, and MSN Web search, to the future of higher education. The paper attempts to elucidate some advantages and challenges of internet and its benefits to higher education.

## DISCUSSION

### ICT: Advantages and Challenges

#### Advantages

Studies indicate that information and communication technology permeates every aspect of higher education ranging from conducting instruction, research, and service to the administrative infrastructure that supports the operation of complex school environment.<sup>3</sup> Suffice it to say that in this cybernetics age, the utilization of internet, World Wide Web sites, and other technological supports at educational institutions are absolutely critical and inexorable. All these technologies become pivotal vehicles to deliver academic coursework to a significant number of students mainly those who face time and geographic limitations.

As a matter of fact, ICT innovation can occur faster than our understanding of its use in practice. To this end, its implementation at higher education institutions must be approached more as an ongoing learning process than as a

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<sup>2</sup> Friedman, T.L., *The world is flat: a brief history of the twenty-first century*, New York: Audio Renaissance, 2006.

<sup>3</sup> Hattan, S., Dawson, C., Hermes, J., & Bolognese, K. (2004), "Cyberinfrastructure" Retrieved March 27, 2007 from the World Wide Web: unknown url.

technology acquisition practice. According to Ehrmann<sup>4</sup>, effective ICT use involves a continual process of: 1) identifying pedagogical goals, 2) determining what activities will serve this goal, and 3) selecting the appropriate tools to implement the activity. Moreover, the basic activity of communication is another point of compatibility between the internet and academia. The oldest and most important form of education is the constant exchange of ideas and opinions between students and lecturers, and among researchers. This process of dialogue, including argument and debate, challenging one another and testing propositions, can be easily transferred into electronic form. Moreover, the internet is open 24 hours a day and 7 days a week. As a consequence, communication can be carried on at all hours, and across distances.

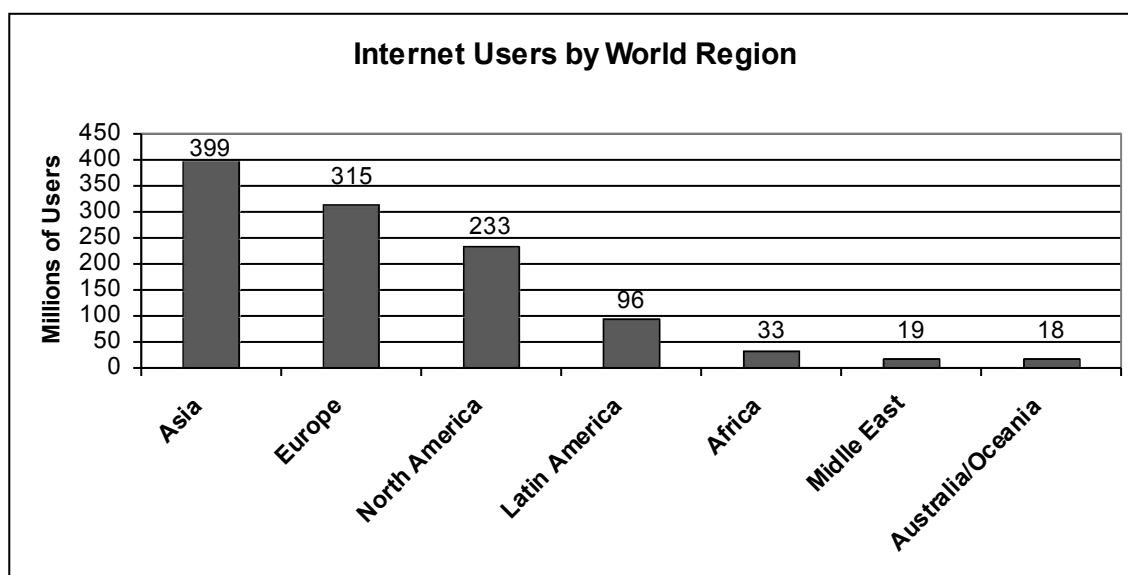
The internet allows study groups to work online, and tutorials can be carried out as electronic discussions. In all these ways, the internet creates an environment where energetic discussion and debate, one of the most fundamental educational processes, can be carried out. Although continuously not a substitute for direct human contact, electronic communication has some features that do permit an actual extension of the scope, continuity and even the quality of certain forms of interaction. Furthermore, Cradler cited in Ludwig and Taymans<sup>5</sup> acknowledges that successful professional development clearly keeps technology in the role of a tool, and focuses on how technology integration improves educational curriculum and its quality. Therefore, the application of technological devices should touch the educational essences by which students may enlighten their competencies for a better future and career.

It is undeniable that internet and other search engines have become useful tools for learners to find tremendous reading materials online. Thousands of books, articles, reports, and other documents are now available online. In response to this need, statistics show that internet users throughout the world have mounted dramatically in the last ten years, most of whom are college students and worldwide business players. The following graph shows the internet users by world region.

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<sup>4</sup> Ehrmann, S., "Computer intensive academic programs", *AAHE Bulletin*, 53(3), (2000), 7-II.

<sup>5</sup> Ludwig, M., Taymans, J., Teaming: constructing high-quality faculty development in a PT3 project. *Journal of Technology and Teacher Education*, 13(3), 2005, 357-372.



Source: ITU<sup>6</sup> 2003

The graph above elaborates that among the world regions, the internet use in Asia is exploding, making it geographically the world's largest market. This is inline with the report published by International Telecommunications Union (ITU) in October 2003. ITU respectively highlights those seven “core” economies Asian countries in using internet. They are China, Hong Kong, India, Japan, Singapore, South Korea, and Taiwan. In those countries, people actively access internet at ages two years and older.<sup>7</sup> Those countries have profoundly utilized internet to accelerate their business and educational development. They strongly believe that internet is one of the pivotal vehicles to grapple and deliver information within a short period. internet has enabled a student and professor to communicate and work together without any delay regardless of the distances that separate them to mingle in a same forum. In addition, in the United States, the use of internet in educational has revolutionized the way research is conducted and education is delivered.<sup>8</sup>

### ***Some Tangible Challenges***

Several current research indicate that computers, TV sets, internet, and WWW sites have now, in some countries, become very common objects of

<sup>6</sup> ITU (International Telecommunication Union). (2003).

<sup>7</sup> Stephen, G., (2003, December 25), “Asian internet use takes off”, *Asia Times*.

<sup>8</sup> Goldmann, H., National Association of State Universities and Land-Grant Colleges. Washington, D.C, 2005.

disrespect within the educational context.<sup>9</sup> They mention that the most common complaints addressed to these characterizing negative the computer revolution and its associated forums appear to blame the new technologies and students who use them for playing games. Others criticize that students spend too much time on e-mail, in chat rooms, or in web-surfing. In a similar vein, criticisms also emerge in the response of students' tendency toward employing these multimedia devices; computer, internet, and the World Wide Web, to cheat on term paper assignments rather than productively utilize them as the tools to expand research and education.

Lanier<sup>10</sup> ascertains that students who are active internet users tend to purchase packaged term papers and/or to download entire essays from the internet and online providers as nowadays many World Wide Web sites provide written papers. He adds that around seventy percent of college students admit to cheating. Some educational practitioners believe that this practice is against the norms of educational ethic. Truly, learners are expected to be the people who value people's creativities by means of acknowledging any references that they quote and retrieve from any provider.

Issues on individual rights and intellectual property have been discussed in most educational meeting forums. Educational experts claim that it is almost impossible to control all learners' activities in browsing their reading materials from internet. Besides, all too often, a news story or artifact of media culture depicts youth as taking advantage of the internet in an immoral fashion to access pornography, to cheat, or to play trivial games.<sup>11</sup>

As a matter of fact, the criticisms of the role of internet and other multimedia technologies in higher education stem from an inability to grasp the nature and importance of internet literacy and to understand how new technologies can help revitalize education.<sup>12</sup> This failure to embrace new technologies as a teaching device has been preceded by an uneven and never adequate use of internet

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<sup>9</sup> Hammer, R. & Kellner, D., Multimedia pedagogy...

<sup>10</sup> Lanier, M.M., Academic Integrity and distance learning, *Journal of criminal justice education*, 17(2), 2006, 243-261,

<sup>11</sup> Hammer, R. & Kellner, D., Multimedia pedagogy...

<sup>12</sup> Ehrmann, S., Computer intensive academic programs...

and multimedia facilities in the classroom. As a result, the illogical of common practice of blaming students and the technology itself may become a potential pedagogical ignorance.

Regardless of whether we like it or dislike it, internet and other search engine tools will continually play a significant role in empowering higher education institutions. To this end, it is imperative that educational practitioners, faculty, staff, and administrators counter the issues of academic integrity, individual rights, and intellectual property that have become a serious concern in educational world.

### ***Benefits to Higher Education***

It is believed that the advancement of technology has brought a profound revolution in higher education institutions in the last decade. This advancement has been harnessed by various prestigious universities worldwide. They attempt to reform education systems to make them accessible to all people worldwide. In order to enable learners to participate in obtaining knowledge every time and every where, higher education institutions offer various conveniences, such as comfortable internet access, updated computer programs, continuous online communication and mentoring. Through these advancements and flexibilities, education has the potential to reach everyone across the globe. A student who has access to and is supported by this technology, for instance, can sit at home to study and obtain a high quality education from a well-known university in the world without having to spend his/her valuable time in the country where the university is located.

Tremendous developments of this technology have also provided a universal access to a number of university libraries in the world. Today, learners can freely read thousands of books, articles, documents, and other significant reports online. They can also watch their favorite movies simply by typing a key word in the Google, Yahoo!, or MSN search engine sites. Friedman<sup>13</sup> said that, today learners become self-directed and self-empowered researchers, editors, and selectors of entertainments, without having to go to the libraries or the movie theaters.

The education fashion has also changed by internet. Going to school is still an important conventional education style, but by means of internet, far-distance

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<sup>13</sup> Friedman, T.L., *The world is flat...*2006.

education has been changing education ways. Education contents are becoming richer, and the concepts of educating have been changed, too. A new kind of internet school, library, even electronic campus, will substitute the present school pattern. The old concentrated education will be replaced by scattering net education model, and the old "teaching" education will be changed into "exchanging" education.<sup>14</sup> Especially to developing countries, education investment is not able to meet the demand, internet is an economical way to improve the situation. Places far away from higher institutions can receive education through internet, to improve national education level and quality.

Finally, the internet is playing a significant role in the emerging theories of education, where the academics act as facilitators, providing guidance, drawing students and steering discussions. The positive charge will come from the students becoming the active agents and leaders for further educational development and change. Universities have a responsibility to exert leadership in the imaginative and thoughtful uses of the best of the new technology for the purposes of better teaching and learning. With all these factors in mind, the library made a conscious decision to take the teaching role in preparing our academics for the challenge.

## CONCLUSION

It is undeniable that the advancement of technology not only brings various advantages for a number of people at large, but also creates series problems particularly if the technology is not used properly. For instance, the development of internet and other technological innovations, such as the three gigantic search engines; Google, Yahoo, and MSN, have enabled people to discover new study approaches and driven them to a world where they can do one additional task without having to sacrifice other routine activities. Through internet connections, education can reach every corner of the globe. These have also enabled educators and instructors in one place to deliver learning and training experiences to learners located in other places, sometimes continents away.

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<sup>14</sup> Henderson, C., "How the internet is changing our lives", *The futurist*, 35(4), 2001, 38-45.



However, inappropriate harnesses of this technology advancement can bring a detrimental impact towards education and community developments. Issues on individual rights and intellectual property are some of the academia concerns that always emerge in educational world. The use of the internet to threaten communities or to do cyber crimes including stealing people's information and illegally hacking their financial sources by any means are considered as serious felonies that must be stopped. To this end, it is urged that people professionally utilize this technology for the sake of good deeds only. They are strongly encouraged to use the internet for academic and business pursuits, not for committing any unlawful actions.

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