

THE INTERNET IN EDUCATION

*İsmail ACUN**

ABSTRACT

This paper is aimed at discussing some issues surrounding the use of the Internet in education. Educating people effectively and appropriately is a major issue in the modern world. In order to achieve a high level of success, educators must think about the variables that affect teaching and learning. The Internet has become one of the variables that affect education as well as everyday life. There are two different discourses about the effects of, and reasons behind the use of the Internet in schools. The incrementalists suggest that the actual effect of Information and Communication Technologies (ICT), and therefore the Internet, would be gradual, and curriculum delivery would be more efficient. According to transformative approach, the new technologies would change the means and ends of education radically.

There is another dimension to this discussion. There are two opposing attitudes towards the use of the Internet in education, enthusiasm or resistance. Enthusiastic people think that the internet is a powerful tool for active and constructive learning. Contrary to that, some people believe that the Internet exposes users to surveillance and commodification. Thus, this paper critically argues issues about the Internet in education such as advantages and disadvantages of it, globalisation and censorship.

Keywords: Internet, Change, Globalisation, Censorship

EĞİTİMDE İNTERNET

ÖZET

Bu makale eğitimde internet kullanımını hakkındaki bazı konuları tartışmaktadır. Modern dünyada insanları etkili ve uygun bir şekilde eğitilmesi önemli bir konudur. Yüksek seviyede bir başarı elde edebilmek için eğitimciler öğrenme ve öğretimi etkileyen faktörler hakkında kafa yormalıdır. İnternet'te eğitimi etkileyen faktörlerden biri halini almıştır. İnternet'in eğitimde kullanılmasının arkasında yatan sebepler ve etkisi hakkında iki değişik söylev vardır. Sürekli artımcı görüş (incrementalist) bilişim ve iletişim teknolojilerinin ve dolayısıyla da internetin, etkisinin zaman içerisinde yavaş yavaş ve sürekli artacağını ve müfredatın

* Afyon Kocatepe Üniversitesi, Uşak Eğitim Fakültesi.

verilmesinin daha etkili olacağını savunmaktadır. Transformatif görüş ise, yeni teknolojilerin eğitim araçlarının ve ürünlerinin tamamen köklü değişime uğrayacağını savunmaktadır.

Bu tartışmanın başka bir boyutu daha vardır. İnternetin eğitimde kullanılması hakkında iki karşıt görüş vardır. İnternetin eğitim açısından iyi olduğunu düşünenler (enthusiastic) internetin aktif ve yapılandırmacı eğitim için çok iyi bir araç olarak görüyorlar. Karşıt görüşte olanlar (pesimists) ise internetin kullanıcılarını gözetim ve pazarlamaya karşı korumasız bıraktığına inanmaktadır.

Bunlardan dolayı, bu makale internetin eğitimde kullanımındaki meseleleri, avantajlarını, dezavantajlarını, küreselleşmeyi ve sansür'ü tartışmaktadır.

Anahtar kelimeler: İnternet, Değişim, Küreselleşme, Sansür.

Introduction

Rapid developments in technology and the Internet have brought about the emphasis on how to utilise their capacity in education. Especially the use of the Internet in education has grown very rapidly in higher and further education institutions for the last two decades. There is a strong 'push' among education community towards integrating the Internet into primary and secondary schools too. National and local governments, public and private bodies and national and international organisations have been creating many projects for the purpose of implementing the suggested promise of the Internet for a better education. There is an explosion of educational resources on the Internet. There are also many applications of using the Internet in education effectively. The hype about the Internet has brought about a new dimension into education. There is a sense of excitement among politicians, teachers, parents and students about this new resourceful tool. It can be suggested that the Internet not only will change how teachers teach and the education is delivered, but it could change the role of teachers and students. The following section deals with the use of the Internet in education.

The Internet in Education

Information and Communication Technologies (ICT) can be used to enhance teaching and learning in schools by making use of educational theories. Educational theories deal with how to educate pupils, suggest ways and techniques in which teacher can operate (Leask and Williams, 1999).

On the effect of ICT on education there are two different views, incrementalist and transformative approach (Schofield, 1995 cited in Lawson

and Comber, 2000a). The former approach suggests that curriculum delivery would be more efficient and actual effect of ICT to education gradually develop. According to transformative approach, radical change on the means of education and the outcomes of the education would occur because of the new technologies. There are many examples of teacher applications to deliver traditional curriculum more efficiently by using the Internet (see for example Cummings and Sayers, 1995, Herring, 1999, Grabe and Grabe, 2000). Moreover, there are also some cutting edge examples of using the Internet to achieve certain educational objectives that without the Internet would be impossible. Especially for distance courses the Internet provides educators with very good opportunities. There are four different types of the systems when using the Internet.

The most commonly used system is the text-based system. The text-based system could be in the form of e-mail, discussion board bulletin board etc. that enables one-to-one, one-to-many and many-to-many synchronised or asynchronised interactions (Mason, 1998).

Audio streaming is another system that the Internet allows educators to reach and/or lecture, give feedback to their students. This system is a low-tech tool for educator to use. When combined with real time text based systems, this could enrich the quality of distance education (Graham, McNeil and Pettiford, 2000).

Another system is video streaming which allows real time video conferencing and interaction. For some it is motivating, and makes the learning environment more social and enables exceptional material to be delivered. For others, it is unnecessary, distracting and expensive (Mason, 1998). Finally, arguable the most effective one is the Web that combines all the systems mentioned above with the advantages and disadvantages of them. On the one hand, the features of the Internet that have been mentioned above for a better education. On the other hand, there is the people's enthusiasm or resistance to use it. Enthusiasts think that the Internet is a powerful tool for individual to construct and promote their ideas rather than being subjected to receive it passively (Lawson and Comber, 2000a). No one owns the Internet, and there is little control on it. The nature of the Internet therefore allows more democratic, student-centered and self-learning oriented to be formed (Pickering, 1995).

Contrary to this point, some people believe that the Internet exposes users to surveillance and commodification (Lawson and Comber, 2000b). New technologies can document and track down activities of individuals and communities which is potentially a danger for freedom. This is possible because not only can the governments have means of controlling people, but also can commercial organizations target individuals by learning their needs and spending habits (Lawson and Comber, 2000b).

Then, what can be achievable by the Internet as a part of ICT for education?

The advantages of the Internet

There are several advantages of using the Internet in education that will be discussed in this paper. Firstly, students will be spending too much time surfing the Internet, as a result children will shift their time usage on TV to the Internet (Pickering, 1995). What this could mean is that students will be actively involved in their learning by using the Internet. Constructivism supports that being active in learning process helps students learn better. Internet has some good features for students, for people indeed in all ages, to collaborate and cooperate. It is possible because it has e-mail, chat, and video conferencing facilities (Whalley, 1998). It is also flexible enough to design sites for all sorts of aims. If it provides userfriendly sources and affordable, it could allow some people to continue their education who cannot at present because of the attendance requirement of educational institutions (Petre, Carswell, Price and Thomas, 1998).

Secondly teachers may face some new opportunities and problems in performing their profession by the development of Internet resources and applications for teaching. Recent research shows that teachers are trying to use the Internet at best they can to carry out their role (Grabe and Grabe, 2000). Nevertheless, their traditional role of being the centre and source of the information could change slowly but radically toward being facilitators, guides (Forsty, 1996). Less centralized and more democratic education could make teachers, as browsers of virtual library just like their students. This could bring culturally, politically and economically different new roles to teachers, and to schooling altogether (Shields, 1996).

Thirdly, there are the skills and knowledge themselves. In educational institutions, teachers pass skills and knowledge to students via curriculum or syllabus. The presence of the Internet may offer new resources beyond curriculum. There is the Internet catalogue instead of curriculum though it is unpacked and differently organized with networks, links and extra materials (Bowie, 2000). Internet sites can hold text, images, demonstrations and ways to connect teachers and other people to each other and learners. What ever to be used for educational purposes and how it is to be used can be determined by learners for learner-centered education (Gillani, 2000). Once again, the role of the teacher is being a guide in that situation. The curriculum is different from traditional one therefore reproduction of the curriculum by student will be different in the way of demonstrating that they learn something (Gillani, 2000).

Finally, the practices that facilitate learning and which establishes whether aimed objectives have been achieved or not are to be discussed in

this part of the paper. Because of the facilities that Internet has, education could be more distributed (Norman, 2000). Access to educational resources and location of the education could be different from current application. That is to say, instead of going to conventional library, people can access vast amount of educational resources on the Internet (Porter, 1997). Virtual library is not like traditional library however students may be able to reach the information that they need for their educational objectives. When students access information on the Internet, they can do it wherever they are. They may not have to go to school to get education (Tetiawat and Igbaria, 2000). One criticism of the traditional education is about the balance between authority and autonomy. Some people claim that learning is about autonomy and teaching is about authority, and authority destroys learning (Lauzon, Gallant and Rimkus, 2000). In that sense, the Internet provides learner with a greater autonomy on their learning by eliminating destructive nature of the authority in schools (Lauzon, Gallant and Rimkus, 2000). Moreover, in schools education is based on textual learning whereas on the Internet learning takes place multidimensionally and non linear because of hypertext (Pickering, 1995). Students can go forward and backward to different resources and information and even to different levels of learning activities by using hypertext links (Pickering, 1995). Another aspect of supposed ideal education on the Internet is assessment of what has been achieved by the students. As it was the case for other educational issues when teaching on the Internet, assessment may also be completely different from traditional assessment (Alaguamali Toh and wong 2000). In the Internet age, there are spell checker, syntax checkers, CD-ROMs, resources on the Internet. Students have the benefit of making use of them extensively. However, student could easily plagiarise by copying and pasting resources unknown by the teachers but relevant to title (Lathrop and Foss, 2000). Educators may not have the tools to identify authentic work from plagiarized ones. Therefore, educators could look for students own writings composed with images, sound, and links embedded into interactive web text.

The advantages that have been debated above could become reality if the Internet becomes commonplace. That is to say, it must be not only cheap and accessible but also contain valuable resources for education. Nevertheless, as explained in next section computers have not been integrated into schools let alone the Internet despite the hype about their value and importance, and never immune from criticism.

Problems in integrating the Internet

Integrating the Internet into classrooms could be difficult due to the possible resistance of the traditional teaching style, the teachers, and lack of necessary skills and confidence of such teachers (Forsty, 1996) in addition to that, it may not be easy to encourage pupils to study with the Internet.

Although necessary skills to use the Internet are not more than skills for ICT usage (Herring, 1999) teachers must be sure about pupils' ability and knowledge are good enough to use it. Another hindrance could be the expense of the construction of the computer networks to the Internet. Lack of technical and pedagogical support results in failure, and administrative and organizational factors must be taken into account of (Humbard, 1997). What is also important is the design and presentation of the content and the curriculum of the lesson. Content of the lesson and the language of course text must be suitable for pupils. Secondary school pupils' reading skills and the level of success in interpretation of any information are not as good as adults'. In the light of the sentence above, it is clear that some materials, likely sources for self-learning, are not designed to suit pupils' need. They have to be designed according to people's level of knowledge and skills. Hence, while designing lessons on the Web, the designers must be aware of the fact that has been stated above. Furthermore, lack of quality control on the materials on the web or sites that must not be seen by children is another concern to think about. Some software must be used to filter information, pictures and so on received by pupils. Finally, the time consuming nature of the Internet, because of the attractive, amusing and massive sites linked to each other may cause change in the objective of the lesson (Herring, 1999). Trying to learn and teach the computer and the Internet must not become more important than the actual lesson aimed at being taught. Learners try to learn not only the subject itself but also complex tools for Internet and new study habits. That process could be very demanding even frustrating (Sumner and Taylor, 1998). Another relatively new issue is globalisation when one think about the internet. As was mentioned earlier, the Internet makes it possible to access information from over distances and about any/every part of the world without any time restrictions. Therefore, globalisation has become an important issue that is brought into the classroom by the Internet.

Globalisation

One of the implications of advanced communication technologies, especially the Internet, in 21st century for both developed and developing countries is its role in globalisation (Krishnan, 1999). As modernity slowly fades away and post-modern era develops, relationships between people also starts to have different shapes from inner city to global village (Cummings and Sayers, 1995). Information now is readily available to anyone with Internet connection regardless of geographical locations. Not only does the Internet transmit information to anyone in the world easily, but also has it led to create new kind of communities, virtual communities (Krishnan, 1999). Krishnan (1999) argues that the internet transforms the conventional forms of community as virtual communities emerge on ever-changing, shifting, uncontrolled and not owned by anyone resulting in loss of notion of

time and space. Individuals in virtual communities exchange information and ideas creating culturally diverse societies with more understanding hopefully towards equality (Cummings and Sayers, 1995). Although the Internet promises better opportunities for everyone, as Bowie (2000) states, there is a digital divide between individual, schools and countries. In order to bridge the digital divide Kelley-Salinas (2000) suggests that following problems have to be address: Socio-economic, generation gap, regional and national level gaps, academic performance between institutions and gaps at the international level. Therefore, research and content development, flexible, open, cost effective technical platform, professional development of teachers, parent education, social participation and planning and evaluation are needed to utilize the Internet applications. Kelley-Salinas (2000) asserts that 'ICT and the knowledge society bring to the cause of learning, equality and social transformation' (pp: 34). Thus, taking globalisation into account has two tiers with Internet applications in education. First, the internet brings the world's issues into the classroom. Second, it could be a powerfull tool to teach globalisation in especially social sciences. Another impotant issue about the Internet in education is censorship. As was discussed the Internet brings the worlds problems into education as well as beauties of it. Child protection and safety are very important aspects of the Internet applications that schools have to take measures about to make sure pupils' safe access to the Internet.

Censorship

Virtual realty contains a lot aspect of the real world. Hence, reflection of the real problems occurs on the internet itself such as safety issues both in terms of commercial and safety of people especially young, pornography, racism (Grabe and Grabe, 2000). People could be exposed to danger such as racist or sexual by using the Internet or even on the Internet. As it was tried to be explained above, dualistic nature of the Internet is seen as liberating individuals and groups because it creates environments for thoughts to be generated and promoted. As opposed to that, some people may think this feature of the Internet as a danger to sustained relationships among individuals, nation and nations (Everard, 2000). Everard argues that 'since Plato there has been concerns with "unsuitable" people having access to information' (2000: 149). The question of what to teach and who decides it remains. May be it needs to be redefined in the information age (Cummings and Sayers, 1995). First attempt to regulate the Internet was the US's the Communications Decency Act 1996 (Everard, 2000). Although, the US Supreme Court over-turned the regulations of the Bill 1997, attempts did not stop to criminalise certain types of Internet sites. Whether the Internet debate falls into the category of freedom of speech paradigm or not is not obvious. European countries have taken the regulation debate beyond national boundaries by agreeing cooperation on establishing regulatory bodies for the

censorship of the Internet (Everard, 2000). Australian government has passed a bill trying to establish control over the Internet for child protection (Lawson and Comber 2000b). As far as education is concerned, the issue goes beyond of child protection from paedophile or unsuitable material. These issues could be seen by educators as the down side of the Internet otherwise a very rich curriculum resource. Thus, public bodies such as BECTA (British Educational Technologies Agency) have cautionary approaches, maintaining the dangers and advantages of the Internet (Lawson and Comber, 2000b). Lawson and Comber (2000b) categorise the British schools' adopted strategies to regulate the Internet use of their students from the data derived from EDSI project. These are: 'restricting access to supervised sessions using filtering software using AUPs (acceptable use policies the honour system virtual surveillance strategies' (pp: 278). One of the conclusions they draw to the issue besides others was that older students could find ways of overcoming censor although successful applications of these strategies by some schools had occurred. Moreover, they say 'restricting access was not the answer from the point of view of most of the schools, (Lawson and Comber, 2000b, pp: 282). There are two opposing attitudes towards the use of the Internet in education, enthusiasm or resistance. Enthusiastic people think that the Internet is a powerful tool for individual to construct and promote their ideas rather than being subjected to receive knowledge passively (Lawson and Comber, 2000a). As explained previously, no one owns the Internet, and there is little control of it. The nature of the Internet, therefore, allows more democratic, student-centered and self-learning oriented to be formed (Pickering, 1995). Contrary to this point, some people believe that the Internet exposes users to surveillance and commodification (Lawson and Comber, 2000b). New technologies can document and track down activities of individuals and communities, which is potentially a danger for freedom. This is possible because not only do governments have the means of controlling people, but commercial organizations can also target individuals by learning their needs and spending habits (Lawson and Comber, 2000b). There is too a growing concern among parents and educators about pupil safety on the Internet. Pornography, racism and crime are just some of the possible dangers for children that cause anxiety.

CONCLUSION

The ability to use ICT effectively and appropriately is seen as essential for learners and teachers to acquire information in every aspect of their lives. There has been discussion about the value of ICT in schools and indeed after school for life-long learners (SOEID, 1999). What is required for learners is to have the necessary skills and knowledge to use ICT. Students are able to do that generally speaking through the process of formal education (Pickering, 1995). Thus, educational institutions and educators

have to adopt effective ways in which they operate to have the desired affect on their students. In this paper, the values of the Internet as a curriculum resource critically have been stated. It seems that the Internet could play an important role in providing resources to teachers and learners by providing tools for research, collaboration, cooperation, life-long and self regulated learning (Forsty, 1996). Finally, globalisation and censorship have been discussed from the sociological and educational point of views.

BIBLIOGRAPHY

- Allagumalai, S., Toh, K. and Wong, J.Y.Y. (2000) 'Web-based Assessment: Techniques and Issues' in A. Aggarwal (ed) (2000) *Web-based Learning and Teaching Opportunities: Opportunities and Challenges*. London: IGP
- Bowie, N.A. (2000) 'The digital divide: Making Knowledge Available in a Global Context' in OECD (2000) *Learning to Bridge the Digital Divide*. Paris: OECD
- Cucchiarelli, A., Panti, M. and Valenti, S. (2000) 'Web-based Assessment in Student Learning' in A. Aggarwal (ed) (2000) *Web-based Learning and Teaching Opportunities: Opportunities and Challenges*. London: IGP
- Cummings, J. and Sayers, D. (1995) *Brave New Schools*. London: Macmillan
- Everard, J. (2000) *Virtual States*. London: Routledge
- Forsty, I. (1996) *Teaching and Learning Material and the Internet*. Kogan Page: London
- Gillani, B.B. (2000) 'Using the Web to Create Student-centered Curriculum' in Cole, R.A. (ed) (2000) *Issues in web-based pedagogy*. Westport: Greenwood, pp.183-211
- Grabe, M. and Grabe, C. (2000) *Integrating the Internet for Meaningful Learning*. Boston: Houghton Co
- Graham, D.T., McNeil, J. and Pettiford, L. (2000) *Untangled Web: Developing Teaching on the Internet*. London: Prentice Hall
- Herring, J. (1999) *Exploiting the Internet as an Information Resource*. London: Library Association Pub
- Jones, S. (ed) (1999) *Doing Internet Research*. London: Sage
- Kelley-Salinas, G. (2000) 'Different Educational Inequalities: ICT an Option to Close the Gaps' in OECD *Learning to Bridge the Digital Divide*. Paris: OECD
- Krishnan, O. (1999) 'Beyond National Boundaries: Towards an Internet Society' *Sociological Bulletin*, vol. 48 no. 1&2, pp.275-283
- Lathrop, A. and Foss, K. (2000) *Student Cheating and Plagiarism in the Internet Era*. Eaglewood: Libraries Unlimited
- Lauzon, A. C., Gallant, T.B and Rimkus, S. (2000) 'A Hierarchy of Access Issues Affecting On-line Participation by Community College Students' in R.A. Cole (2000) *Issues in web-based pedagogy*. (pp.161-181), Westport: Greenwood

- Lawson, T. and Comber, C. (1999) 'Superhighways Technologies: Personnel Factors Leading to Successful Integration of Information and Communication Technology in Schools and Colleges' *Journal of Information Technology for Teacher Education*. Vol.8, no. 1, pp.41-53
- Lawson, T. and Comber, C. (2000a) 'Introducing Information and Communication Technologies into Schools: Blurring Boundaries' *British Journal of Sociology of Education*, Vol. 21, no. 3, pp.419-433
- Lawson, T. and Comber, C. (2000b) 'Censorship, the Internet and Schools: a new moral panic?' *The Curriculum Journal*. Vol. 11, no. 2, pp. 273-285
- Leask, M. and Williams, L. (1999) 'Using the Internet as a Teaching and Learning Tool' in Leask, M. and Pachler, N. (eds) *Learning to Teach Using ICT in the Secondary Schools*. (pp.51 -71). London: Routledge
- Mason, R. (1998) *Globalising Education: Trends and Application*. London: Routledge
- Norman, K. L. (2000) 'Desktop Distance Education: Personal hosting of Web Courses' in A. Aggarwal (ed) (2000) *Web-based Learning and Teaching Opportunities: Opportunities and Challenges*. London: IGP
- Petre, M., Carswell, L., Price, B. and Thomas, P. (1998) 'Innovations in Large-scale Supported Distance Teaching: Transformation for the Internet, not Just Translation' in Eisenstadt, M. and Vincent, T. (1998) *The Knowledge Web: Learning and Collaborating on the net*. London: Kogan Page
- Pickering, J. (1995) 'Teaching on the Internet is Learning' *Active learning*, 2, pp.9-12
- Porter, L.R. (1997) *Creating the Virtual Classroom*. New York: Wiley Computer Pub
- Shields, R. (1996) 'Introduction: Virtual Spaces, Real Histories and Living Bodies' in R. Shields (1996) *Cultures of the Internet*. London: Sage
- SOIED (1999) Teachers' ICT Skills and Knowledge Needs, Final report: at <http://www.scotland.gov.uk/library/ict/append-section1.htm>
- Tetiwat, O. and Igbaria, M. (2000) 'Opportunities in Web-based teaching: The future of education' in A. Aggarwal (ed) (2000) *Web-based Learning and Teaching Opportunities: Opportunities and Challenges*. London: IGP
- Whalley, P. (1998) 'Collaborative Learning in Networked Simulation Environments' in Eisenstadt, M. and Vincent, T. (1998) *The knowledge Web: Learning and Collaborating on the Net*. London.: Kogan Page