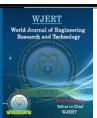
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## **E-TEACHER AND E-LEARNING IN DOT.COM AGE**

## **Dr. Yousef Mehdipour\***

Assistant Professor, Health Information Technology Department, Zahedan University of Medical Sciences, Zahedan, Iran.

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\*Corresponding Author Dr. Yousef Mehdipour Assistant Professor, Health Information Technology Department, Zahedan University of Medical Sciences, Zahedan, Iran.

#### ABSTRACT

Understanding the impact of E-teaching, E-learning and E-education is seen as fundamental to moving us forward so we can make greater use of the opportunities provided by the Internet. E-teachers are considered central to the move toward E-education and the way in which ICT is integrated in our schools. To implement an ICT E-Strategy without E-Teachers will now be like piloting a boat without a navigator. Three

key areas will be addressed in this paper:

- 1. An analysis of E-learning and its impact on teachers.
- 2. The changing roles of teachers and the classroom environment with the advent of Elearning
- 3. How schools can move towards establishing strong pedagogical bases for E-learning.

The present study was conducted in a descriptive study and data collection was done using library and field study methods. Finally, this study expressed that teachers need time, support and latitude to experiment and be creative as they learn to become E-Teachers.

KEYWORDS: Dot.Com, E-Education, E-Learning, E-Teacher, E-Teaching.

## INTRODUCTION

The "E" word has become increasingly evident on the lives of humans in ways many could not have imagined less than ten years ago. With relative ease, the "E" is attached to activities like real estate, retailing, banking, entertainment and now education. The "E" stands for "electronic" and it relates to the use of the Internet to undertake the wide range of activities. As we become more familiar with the language of the Internet we find just how much it pervades our daily lives in the dot.com age. We readily recognize http://www as an Internet web site and see it plastered on vehicles, billboards, hot air balloons, and merchandise and in the screen and print media. Educators are now beginning to hear terms like E-teaching, E-learning and E-education as it subtly becomes part of our regular vocabulary. Many interested educators are now asking E-questions like:

- What is E-education, E-teaching and E-learning all about?
- Is this really the big leap forward with ICT, the next step?
- What about teachers, how will they make the change?
- Why might we want to invest our time, money and energy in E-education?

There is a lack of available research about the process of implementing a technology as dynamic and evolving as the Internet into E-classrooms and examining the impact of E-teaching in schools. Much of what has been written is more anecdotal than conclusive. Case studies and evaluations offer the most recent comment available but the information was not necessarily generalizable. There are however some wonderful stories from which we can learn and reflect on the underlying values and avoid being swept along by the hype and glamour of a range of glittering technologies. While the case studies and stories provide food for thought, we must be aware of the essential need for further research to be undertaken to guide future policy and planning initiatives.

*E-Teachers* are the new generation of teachers who will work in an Internet environment in both regular and virtual classroom situations. They will build new concepts of working in time and space. E-teachers collaborate, build and discover new learning communities and explore resources as they interact with information, materials and ideas with their students and colleagues. On the other hand, *Digital Students* are students whose brains have become accustomed to digital media, such as playing computer games, listening to music on Ipods and looking at computer screens for lengthy times. Many of them have today evolved from sitting in front of screens to using handheld devices to send e mails, text messages and send instant messages. Some of them even talk to each other in bytes. In fact this generation is called the digital generation. Students of today live in a very different world from the world previous generations lived in. They communicate with their peers and teachers via computers, i.e. social networks. The virtual world together with its ups and downs is at their finger tips. "Apple computer defines these digital students or digital kids as kids who are; Hyper communicators, multi taskers and goal orientated." (Shelly, Gunter & Gunter, 2010). Digital

students think differently (critical thinking), absorb and process information differently compared to previous generations' students.

E-learning is learning which takes place as a result of experiences and interaction in an Internet environment. It is not restricted to a regular school day and can take place in a variety of locations including home, school and community locations e.g. libraries, cafes etc. On the other hand, E-education involves E-teaching and E-learning along with the various administrative and strategic measures needed to support teaching and learning in an Internet environment. It will incorporate a local, regional, national and international view of education.

Rosenberg (2001) highlighted the importance of an E-learning strategy and warned that this was not just about utilizing tools: "An effective E-learning strategy must be more than the technology itself and the content it carries. It must also focus on critical success factors that include building a learning culture, marshalling true leadership support, deploying a nurturing business model, and sustaining the change throughout the organization." The people who can help to implement the change according to Rosenberg (2001) are those who are ready and willing to see learning in a much broader context. This is not about reinventing what we do now but about broadening our horizons as we take advantage of new opportunities to enhance what we might do in a classroom that has no traditional walls.

The Web-Based Education Commission (WEBC) (2000) found that "the Web is a medium today's kids expect to use for expression and communication—the world into which they were born" while acknowledging "the Internet is not a panacea for every problem in education". The WEBC Report focused on the promise of the Internet and web-based learning:

- > To center learning around the student instead of the classroom
- > To focus on the strengths and needs of individual learners
- > To make lifelong learning a practical reality.

It highlighted the need for continuous and relevant training and support for educators and administrators at all levels. However, the report had a minimal focus on E-teaching and a heavy emphasis on e-learning. A potential E-teacher could well be left wondering *What does this mean for me if I want to be an E-teacher?* 

Three key areas will be addressed in this study includes An analysis of E-learning and its impact on teachers, The changing roles of teachers and the classroom environment with the advent of E-learning , and How Schools/Universities can move towards establishing strong pedagogical bases for E-learning.

### MATERIAL AND METHOD

The present study was conducted in a descriptive study in the second half of 2018. based on the purpose, This research is an applied research, and data collection was done using library and field study methods and ware reviewed related articles and books.

#### RESULTS

This study showed that there are many benefits of e-learning to its users. They include Cost Effective, Flexibility, Convenience, Suitability, and Fast delivery. The networked environment of this new Internet-connected world has expanded the opportunities for teaching and learning in ways that we are only beginning to understand. What makes the implementation of E-teaching so challenging is that we are asking teachers of the dot.com age to teach in a way in which they have never been taught when they were at school. They will work in an environment in which they have never been learners and may have had few first-hand experiences. However, without a history and a wide knowledge base to draw on, E-teachers will have the opportunity to be pioneers in their own right as they set sail. They will have the chance to re-examine what it means to be a teacher.

This study showed that a positive attitude toward the use of ICT was a strong indicator of whether a teacher might consider E-teaching. Conversely, one of the major barriers to E-teaching identified by Hirschbuhl (1994) was the fear some staff felt when faced with stepping outside their comfort levels and they were not willing to take the risk. The level of internal motivation to utilize ICT and to consider new and different teaching options was found to be an essential factor in research by Goodwin et al. (1993), Hirschbuhl (1994) and Wolcott (1997) in tertiary education settings. At Emporia State University, Clay and Grover (1995) found that the fear centered on staff feelings of having little or no preparation or support to teach in this new way. This fear was consistent with the findings of a study of staff integration of technology into their teaching by Munson, Poage, Conners and Evavold (1994). Following discussion with the participants, the researchers described the fears:

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They included fear of looking foolish, fear of asking for help, fear of not 'catching on' quickly enough, and fear of not being able to be effective with the technology in instructional settings. It was important for us to note that these fears were self-imposed and self-generated, but very real nevertheless. Rutherford and Grana (1995) also focused their research on academic staff fear in the face of technology. They identified nine areas that could prevent staff from making changes that would enable them to integrate technology into their teaching:

- 1. Fear of change
- 2. Fear of time commitment
- 3. Fear of appearing incompetent
- 4. Fear of techno lingo
- 5. Fear of techno failure
- 6. Fear of not knowing where to start
- 7. Fear of being married to bad choices
- 8. Fear of having to move backward to go forward
- 9. Fear of rejection or reprisals.

This study indicates that the issues of a lack of knowledge about ICT, a perceived lack of support, and an unwillingness to experiment with innovation all impact on the move to E-teaching. Kaye (1989) indicated four predictors of success when using computers to teach students at a distance:

- Some prior familiarity with the technology at least at the level of word-processing, and in the use of electronic mail.
- An interest in the educational potential of networking and CMC [computer mediated communication].
- > A commitment to the values of group work and cooperative learning.
- Sufficient time, not only actual on-line time, but, more importantly, the time to consider students' contributions and react to them appropriately.

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This study showed that some differences between conventional learning and E-learning. (Table 1) below:

Conventional learning	E-learning
Students attend a school in their local	Students participate from a variety of locations and
community or attend a boarding or	may "attend" multiple learning institutions and/or
correspondence school.	their local school.
Classes are scheduled according to	Students may determine the times when they access
school hours and timetables.	E-learning opportunities.
Students are directed to work	Students can choose to work individually or
individually of in groups.	collaboratively with people who may or may not be
individually of in groups.	in their <i>regular</i> class.
Classes are synchronous. Teachers and	Classes may be synchronous or asynchronous.
students interact in real time.	Classes may be synemonous of asynemonous.
Students are generally enrolled with one	Students may take classes from more than one
school.	school.
Learning objectives are set by the teacher	Students may set their own objectives and explore
and institution.	their own learning needs and agendas.
Students follow a linear pattern	Students can follow a non-linear path at a pace that
influenced by the needs of other class	meets their individual needs at that time, i.e. just-in-
members and the teacher's planning.	time learning. The teacher is facilitating the activity
Students are developing the essential	Students are developing the essential skills through
skills through the seven essential learning	the seven essential learning areas of the Curriculum
areas of the Curriculum Framework.	Framework.
Teacher work in one school.	E-teacher can work in more than one school.
Teachers' role is the authority	E-teacher directs the student to the information.

This comparison highlights some of the day-to-day differences that may become apparent according to how a school chooses to offer E-education and the choices which families will make for their students. E-learning can give students much greater control over their own learning experience while giving E-teachers an opportunity to further meet the needs of individual students in a digital age (Layton, 2000; Wallhaus, 2000).

On the base of research findings, many words have been written about the Internet and the possibilities for its use in E-education but little has been researched about how teachers effectively modify their practice to work in this new environment. Just because teachers in schools have teacher education qualifications, this does not necessarily prepare them to be E-teachers. Campbell (1997) expressed that being able to teach confidently in one environment is not a precursor to success as an E-teacher in a very different environment.

The E-teacher who is surrounded by rapidly changing E-environments and technologies must at times feel like they are trying to change a type on a moving vehicle. When explaining the challenge and changing roles for E-teachers, it is a little like encouraging them to be information and environment architects. The environment they create may well be totally aligned with the work of the regular classroom so that E-learning becomes an integral part of it. Alternatively it may be a virtual classroom where the students only visit electronically. This seamless transition from what we now accept as learning to an E-learning environment will in time mean that the "E" ceases to have any particular significance.

When considering how schools/universities might move toward establishing strong pedagogical bases for E-learning, Layton (2000) suggested "we should begin with where we want to be, where we think we will be, and work back through all the steps necessary to get to that point." By using *where we are today* as the only starting point without a strong shared vision of E-education means schools could easily drag along excess baggage in the form of resistance and inadequate strategies for change.

When E-learning is measured against what schools are traditionally doing using the same measurements, aims and objectives, then the very advantages of E-learning may be ignored and the perceived status of E-learning will suffer. Education in a non-face-to-face situation has been regarded by some people as a depersonalization of the teaching activity. When it is packaged and marketed like many other commodities, Keegan (1994) believed there was a resultant lack of status because of this perceived commercial and mechanistic association. If there is a perceived lower status associated with E-education, innovative teachers will not be attracted to this area of teaching if they are intent on advancing their promotion and career prospects (Holt, 1996; Moskal, Martin & Foshee, 1997). A question of the perceived status and the comparison of the different modes of teaching was summed up by Feenberg (1999, p. 191) when he identified how the "problem is that we tend to judge the face-to-face at its memorable best and the computer-mediated equivalent at its transcribed worst." Effective application of E-education can take place in schools with:

- Teachers who understand what it is like to learn in an E-environment.
- Teachers who are confident working in synchronous and asynchronous environments interacting with communities of students and peers they may never see.
- Teachers who are able to locate and publish in a web-based environment.

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• Technical support which is supporting and NOT driving the E-teaching activity (Healy, 1999).

Cambre and Hawkes (2001) highlighted how teachers who self-select to be E-Teachers or are hired specifically as E-Teachers "will be happier and more productive than those who are recruited for convenience or feel pressured to take part".

The design of effective E-learning will be undertaken by E-teachers who are familiar with this new E-classroom environment. This is not the role of the technical support people or software designers. The E-learning environment should be flexible enough for E-teachers to design and implement their own unique environments independently. Then E-teachers can leverage the distinct attributes afforded by the new technologies so that they are meaningful and motivational for E-learners. The assessment and evaluation of E-learning and the E-curriculum will not necessarily utilize the traditional models of accreditation. If there is a deliberate attempt in E-education to not simply reproduce current classroom practice, then there is every justification for considering new "standards" of achievement in E-learning situations (Palloff and Pratt, 2001).

## CONCLUSIONS

For many students their home will be the principal place of access to the Internet and the word *classroom* will assume a whole new meaning. The nature of the traditional classroom is going to change beyond recognition and we too may wonder why *we didn't get it* at the time.

This paper has deliberately avoided discussion of the hardware and software that may be required to meet the needs of E-education and E-teachers. The paper is not about the tools, it is about the people who will work in the online environments.

Another reason for focusing on the people is that this investment in teachers and students can have a positive long-term return. The technologies can easily become solutions looking for problems to solve, a trap that will be avoided by E-educators who have a vision for what they can achieve. It is naive to think that E-education can happen without the associated technologies but it is suicide to think it will happen without teacher buy-in and participation in the vision-building that will be required.

It is time now to focus on the needs of E-teaching and E-teachers, the architects of change in our schools/universities. Solutions developed by instructional designers and multimedia

specialists will not change the E-education world unless the teachers are the learning designers of the future. E-teachers will support and promote change when they feel they are an essential part of the process.

Ultimately, E-learning saves teachers a lot of time. It may have some negative attributes such as students becoming lazy due to lack of constant supervision, but in the end, it is a tool that if used well, is beneficial to both the teacher and the students.

#### REFERENCES

- Bigum, C. and Lankshear, C. *Literacies and Technologies in School Settings: Findings from the Field*. Keynote Address to 1998 ALEA/ATEA National Conference, Canberra, July 7<sup>th</sup>, 1998.
- 2. Cambre, M. and Hawkes, M., Twelve steps to a tele-community. *Learning and leading with technology*, 2001; 7(3): 22-27.
- Campbell, N. G., Learning to teach online: An investigation of practice in teacher education. Unpublished masters thesis, University of Waikato, Hamilton, New Zealand, 1997.
- Clay, M. & Grover, R., Throw me a rope: A distance learning faculty guide. In D. A. Willis, B. Robin & J. Willis (Eds.), *Technology and teacher education annual*, Charlottesville, VA: Association for the Advancement of Computing in Education, 1995; 621-625.
- 5. Draves, W.A., *Teaching online*. River Falls, Wisconsin: Learning Resources Network, 2000.
- Fancy, H., Text of a speech delivered by Howard Fancy at the International Workshop on Advanced Learning Technologies at Massey University, 2000. [On-line]. Available: http://www.minedu.govt.nz/web/document/document\_page.cfm?id=5432.
- 7. Feenberg, A., *Questioning technology*. London: New York, 1999.
- Goodwin, B. N., Miklich, B. A. & Overall, J. U., Perceptions and attitudes of faculty and students in two distance learning modes of delivery: Online computer and telecourse. Orlando: FL. (ERIC Document Reproduction Service No. ED 371 708), 1993.
- 9. Gotschall, Mary. (n.d.). *E-learning strategies for executive education and Corporate training*. [On-line]. Available:

http://www.timeinc.net/fortune/sections/onlinelearn/onlinelearn.htm [2001, 10 April].

- Harrison, J. (n.d.) In Telelearning Network of Centers of Excellence. New approaches for preparing teachers. In *New learning technologies, applications, challenges and success stories from the front lines.* (pp. 2-4). Vancouver: Simon Fraser University.
- 11. Healy, J., *Failure to connect: How computers affect our children's minds and what we can do about it.* New York: Touchstone Books, 1999.
- Hirschbuhl, J., Faculty uses of computers: Fears, facts and perceptions. *The EDUTECH Report*, 1994, May; 10(2): 1, 4-5.
- Holt, P., A response to Chris Dede. *The American Journal of Distance Education*, 1996; 10(2): 49-52.
- Kaye, A., Computer-mediated communication and distance education. In R. Mason & A. Kaye (Eds.), *Mindweave: Communication, computers, and distance education*, Oxford: Pergamon Press, 1989; 3-21.
- 15. Keegan, D., Introduction. In D. Keegan (Ed.), *Otto Peters on distance education: The industrialization of teaching and learning*. London: Routledge, 1994; 1-23.
- 16. Lankshear, C. and Bigum, C., Literacies and new technologies in school settings. *Pedagogy, Culture and Society,* 1999; 7(3): 241-61.
- 17. Lankshear, C. and Snyder, I., *Teachers and technoliteracy: Managing literacy, technology and learning in schools.* St. Leonards, N.S.W. Allen & Unwin, 2000.
- Layton, T.G., *Digital learning: Why tomorrow's schools must learn to let go of the past,* 2000. [Online]. Available: http://www.electronic-school.com/2000/09/0900f1.html.
- 19. Mehlinger, H. D., *School reform in the information age*. Bloomington, IN: Center for Excellence in Education, Indiana University, 1995.
- 20. Ministry of Education., *New Zealand Curriculum Framework*. Wellington: Learning Media, Ministry of Education, 1993.
- 21. Ministry of Education., Interactive education: An information and communication technologies strategy for schools. Wellington: Ministry of Education, 1998.
- Moskal, P., Martin, B. & Foshee, N., Educational technology and distance education in Florida: An assessment of capabilities. *The American Journal of Distance Education*, 1997; 11(1): 6-22.
- 23. Munson, D. E., Poage, J. A., Conners, D. & Evavold, J., Technology and faculty collaboration: Psychological and sociological factors and effects. In D. A. Willis, B. Robin & J. Willis (Eds.), *Technology and Teacher Education Annual*, Charlottesville, VA: Association for the Advancement of Computing in Education, 1994; 764-766.

- 24. Oppenheimer, Todd, *The computer delusion*, 1997. [Online]. Available http://www.theatlantic.com/issues/97jul/computer.htm.
- 25. Organisation for Economic Co-operation and Development. *Learning to Bridge the Digital Divide: Schooling for Tomorrow.* Paris: OECD, 2000.
- 26. Palloff, R.M. and Pratt, K., *Lessons from the cyberspace classroom: The realities of the online classroom.* San Francisco: Jossey-Bass, 2001.
- 27. Rosenberg, M. J., *E-learning: Strategies for delivering knowledge in the digital age*. New York: McGraw Hill, 2001.
- 28. Ruddick, J., Innovation and change. Buckingham, UK: Open University Press, 1991.
- 29. Rutherford, L. & Grana, S., Retrofitting academe: Adapting faculty attitudes and practices to technology. *Technological Horizons in Education Journal*, 1995, September; 23(2): 82-83.
- 30. Salmon, G., *E-Moderating: The key to teaching and learning online*. Kogan Page: London, 2000.
- 31. Salomon, G., of mind and media: How culture's symbolic forms affect learning and thinking. Phi Delta Kappan, 1997; 78(5): 375-380.
- 32. Stoll, C., Silicon snake oil. New York: Anchor Books, 1995.
- 33. Wallhaus, R. A., E-learning: From institutions to providers, from students to learners. In R. N. Katz & D. G. Oblinger (Eds.), *The "E" is for everything*, San Francisco: Jossey-Bass, 2000; 21-52.
- 34. Web-Based Education Commission., The Power of the Internet for learning: Moving from promise to practice, 2000; [Online]. Available: http://www.ed.gov/offices/AC/WBEC/FinalReport.
- 35. Web-Based Education Commission., Web-based Education Commission Issues Urgent Call-to-Action To Harness Inter-net's Power for Learning, 19 December 2000. [Online]. Available: http://www.hpcnet.org/cgi-bin/global/a\_bus\_card.cgi?SiteID=203877.
- 36. Willis, B., Preface. In B. Willis (Ed.), *Distance education: strategies and tools*. Englewood Cliffs, NJ: Educational Technology Publications, 1994; 5-10.
- Wolcott, L. L., Faculty development issues in distance education. *Open Praxis*, 1997; 1: 34-36.