

Collaborative Research Projects In Creating Distributed Learning Environment In Multicultural Context

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ABSTRACT

Globalization of education in a true sense cannot be achieved only by establishing accessibility, developing cost effective technologies. We also need to understand the issues underpinning the problem. An innovative approach in overcoming the cultural barriers in reaching wider audience has been discussed in this paper.

GLOBALISATION OF EDUCATION

At its most basic level, globalisation refers to the flow of products varying from manufactured goods to knowledge, across national borders. This process has taken place wherever people have travelled and traded throughout history (Woodhouse, 2001, Tomlinson, 2003). The speed with which this occurred in was limited by the transport and communication systems. With the advent of electronic communication the flow of knowledge and ideas increased in speed and reach (Rizvi, 2003). This opened borders to the inflow of new information and people with access or exposure to the electronic media such as radio, television and/or computers became exposed to a much richer and varied pool of knowledge and values. As governments aiming at economic participation in the global market have increased information technology access both in form of infrastructure and training, more and more communication is taking place via the Internet (Vaks, 2003). The multiplicity of information sources and communication links has given rise to an emergence of Learning Societies (Hallak, 1999). This freedom of information exchange and the ease with which people can travel and settle in societies different from those they have grown up in, places different demands on education systems and, ultimately, the teachers.

Education is crucial for successful integration in a 'global world'; competencies needed: learning to be, learning to do, learning to earn and learning to live together. (Hallak, 1999 p. 18)

Globalisation of education carries with it the risk that cultural diversity is reduced and that a dominant culture of 'pop' may flourish. This risk is further exacerbated by English being the common language on the internet (Hallack, 1999). He further contends that access to the net may actually increase diversity as people become fluent in English while maintaining their own languages (Ibid). Yet others visualise the net becoming multilingual with access to the multilingual components made possible to all by the use of appropriate software (Gritsenko & Anisimov, 1999; Auh, 1999, Ghonaimy, 1999).

CULTURAL DIVERSITY IN EDUCATION

The most important method for promoting and protecting cultural diversity is education. The learning networks expose the learner to new norms and enable him/her to make informed decisions about traditional and new practises surrounding for example environmental and social issues. This opens the debate on 'human rights' and foments a strengthening of human relationships on a global scale (Nyiri, 1999; Raymond, 2002).

While education seems to have changed little at the classroom level (Carney, 1999), it is nevertheless obvious that globalisation has had, and continue to have, a large effect on education, as individuals become reintegrated into new communities built around information and knowledge. The classroom is but one part of how knowledge is distributed and shared (Ibid).

Firms, workers, students and even children watching television or using the Internet at school, are re-conceptualising their 'world', whether that world is defined as a market, a location for production, a place to work, a source of information, a place to vacation, or a source of environmental problems (Carney, 1999 p. 18).

Social life is affected by how knowledge and information is transmitted. Students can exchange e-mails and chat with others anywhere in the world in real time. The individual's ability to cope with information is constantly challenged, and the network is becoming increasingly individualised. Although the Internet has created the possibility of a 'global village' where all potentially can chat together, there is also an increasing risk of alienation and fragmentation created by the individual focus and access to the net. Education and a wise use of the technology can, however, increase co-operative skills and ability to work in teams (Cogburn, 1999).

FORMATION OF LEARNING COMMUNITIES

Schools need to become centres for the new learning societies and form new communities built around information and knowledge, as well as being 'real space' community centres for a settlement of people. Schools, on the whole transmit the culture of the society in which they are embedded. The method for this transmission is set by curriculum documents designed by governments. Globalisation re-defines culture by including other places into the immediacy of the school environment (Appiah, 1999).

Teachers, both in traditional and virtual classrooms, not only have to deal with students from different cultural backgrounds which will have influenced their worldviews, but also with 'globalised' students who are participating in information networks, interacting widely with others through dialogue and discourse, making private knowledge public and developing a shared understanding. This fosters cognitive growth and a distributed cognition. Teachers have to be supplied with alternative teaching strategies to cope with the increasing variability of students in their classes. While teachers are crucial to the transmission of education and the quality and efforts of teachers will determine the quality of education, tools for online collaboration have been designed to support collaborative knowledge construction and sharing in the classroom (Oshima, Bereiter, and Scardamalia, 1995). Cultural identity, whether religious, ethnic, racial, gender, age-determined and/or socio-economic, tempered with the globalised identity imposed by the networked global society, offers challenges to the new community learning centres and those that serve the knowledge industry i.e. education (Nyiri, 1999; Einarsson, 1999). Often students and educators together become 'intellectual tourists' by brief excursions into other people's lived cultures (Roman, 2003) rather than active citizens in the global village.

DISTRIBUTED COGNITION VS GLOBAL LEARNERS

Let us consider Drake's (1998) Story Model (Fig. 1) to understand how we can move towards the concept of a global mindset through distributed cognition. In using the Story Model to explain the shifts happening in education today, we need to examine 'our ways of knowing'. The first filter is the personal story. Our knowing is influenced primarily by the personal events of our lives. We construct knowledge and make meaning of it through the lens of our personal story, and that is why individuals

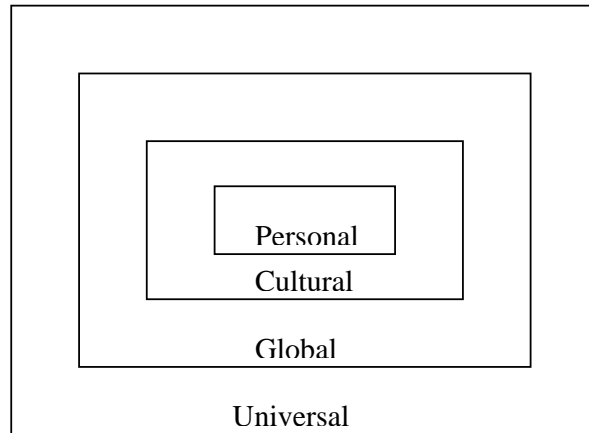


Fig. 1: Simplified Version of Drake's Story Model

interpret the same event so differently. Every educator and learner has a different context and thus stories his or her perceptions differently. Simple things like the geography a person lives in affects perception and interpretation. Metaphors used are formed by these experiences. Canals, rivers, sea, mountain and desserts may be part of the lived background for some, total abstractions for others. Our personalities and learning styles are probably in large part genetic, but also coloured by our surroundings. If a person has grown up in an aural society, his/her learning style is probably largely aural as well.

The second filter is the cultural story. The culture that we live in sends out powerful messages about what is "true". These assumptions and beliefs filter through our personal story, and we often accept these assumptions as fundamental truths. The media, government, schools, and churches perpetuate this cultural story. It influences how we conduct education. The beliefs and assumptions that we accept as unquestioned truths drive our behaviour. Thus value systems in one country may differ from another e.g capital punishments may be accepted in one place, totally abhorred in another. Communities within the same country also differ, e.g. the values of a rural person may be quite different from those of an urban person. Other less obvious cultural differences also occur as for example socio-economic, gender and age cultural differences. While these are less obvious, they are very real in the story engendered by participation in those cultures.

Because education is a concern across the planet, we also need to consider the global filter, or story. Countries compare their education systems on international league table like TIMSS and PISA. In a global economy, competition between countries for an edge in expertise and inventiveness as well as the desire for an educated population is growing (Carnoy 1999, Cogburn, 1999; Appiah, 1999; Vaks, 2003), and much education reform has been driven by an apparent failure to achieve on these

international league tables (Riley and Torrance, 2004). An international study looking at innovations in 13 countries participating in the international surveys were dissatisfied with their current system (Atkin & Black, 1997). Although there appeared to be different reasons for desiring educational reform, there were some strong similarities in their stated intents. All countries were putting greater emphasis on a real-life context and cross curricular activities.

Finally, the model shows that there is a universal story. This is a story that connects us all as human beings regardless of time or culture. All humans demonstrate the same emotions. We have similar needs and responses to great art, music, and story. This poses the questions: Are there common ways in which all peoples learn? Is this different from the traditional method of the teacher delivering material to passive students? Is there a difference in how material is presented to students in face-to-face situations versus that in a distributed learning environment (on-line). How does this connect to the way in which we teach and assess?

When planning curriculum deliveries, educators and policy makers should perhaps consider the points of human communality as set out in Drake's model first, and then the personal differences one by one in creating an effective learning environment for globalised students. Glass & Vrasidas (2002) describes the current state of developments in distance education and distributed learning. Topics covered include research and evaluation in distance education, online communities, faculty productivity, online assessment, critical issues and the digital divide, and the hidden curriculum of e-learning. Barone, Hawkins and Oblinger (2001) identify significant issues associated with distributed education and suggest questions to help institutional leaders establish and validate their options. While current technological advances have made it possible to instruct outside of the classroom setting in a distributed learning environment, the multicultural context in which the students and the teachers are operating must form a large part of the planning and policy procedures. It has been well researched that conceptual understanding, ways of communication, thinking pattern and behaviour of people are embedded in the culture. Bhattacharya (1999) examined the conceptual understanding of a particular reading material of people from different cultural background. When developing material for distributed learning we emphasize that the material should be of high quality, comprehensive and pedagogically sophisticated. Now the question is how do we do that? How can we develop material, which will cater to all kinds of diverse learners' population? How should we select the teachers or mentors when dealing with people from any where in the world?

WORK IN PROGRESS

A recommendation from a symposium on Distributed Learning held at AARE 2003 in Auckland, New Zealand (Bhattacharya & Jorgensen, 2003), proposed that a collaborative research project be established to undertake the examination of the needs and preparation of material for catering for cognitive growth in the distributed learning environment. This research should cover wide learning areas as well as wide cultural input. To cater for language problems visual tools should perhaps be emphasized.

Because of rapid social and technological changes there is a need to be mobile and adaptive in the collaborative work. It is not possible to resolve conflicts, reduce tensions and solve problems arising from mobility and advancement in the techniques of communication and interaction without considering the multifaceted views of the issues. It is hoped that the collaborative research will result in a joint publication to add information to a growing, but so far poorly researched, issue in education.

REFERENCE

Appiah, K. (1999). *Developing participation in the global information society*. http://unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm Accessed from the World Wide Net on 26 February, 2004.

Auh, T. (1999). *Promoting multilingualism on the internet: Korean experience*. http://unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm Accessed from the World Wide Net on 26 February, 2004.

Barone, C. A., Hawkins, B. L. & Oblinger, D. G. (2001), *Distributed Education and Its Challenges: An Overview*. *Distributed Education: Challenges, Choices, and a New Environment*, ERIC Accession Number: ED457766, American Council on Education, Washington, DC. Center for Policy Analysis, AT&T Foundation, NY: USA.

Bhattacharya, M. & L. Jorgensen, (2003). *Distributed Learning Environment in a Multicultural Context*. A Symposium presented at AARE Conference, Auckland, New Zealand.

Bhattacharya, M. (1999). *A Study of Asynchronous and Synchronous Discussion on Cognitive Maps in a Distributed Learning Environment*. ERIC Accession Number: ED448698, WebNet 99 World Conference on the WWW and Internet Proceedings (Honolulu, Hawaii, October 24-30, 1999).

Carnoy, M. (1999). *Globalization and educational reform: What planners need to know*. United Nations Educational, Scientific and Cultural Organization.

Cogburn, D.L. (1999). *Globalization, knowledge, education and training in the information age*. http://unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm Accessed from the World Wide Net on 11 February, 2004.

Drake, S.M. (1998). *Creating Integrated Curriculum*. Thousand Oaks, CA: Corwin Press. What is integrated curriculum and why is it important?

Einarsson, S. (1999). *Language and communication in the context of creative diversity*. http://unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm Accessed from the World Wide Net on 26 February, 2004.

Ghonaimy, A. (1999). *Role of language engineering in supporting multilingual aspects in cyberspace*. http://unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm Accessed from the World Wide Net on 26 February, 2004.

Glass, G. V., & Vrasidas, C., (Eds). *Distance education and distributed learning. Current Perspectives on Applied Information Technologies*. ERIC Accession Number: ED476230, Information Age Publishing, Inc., CT: USA.

Gritsenko, V. & Anisimov, A. (1999). *Multilingual environment in cyberspace*. http://unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm Accessed from the World Wide Net on 26 February, 2004.

Hallak, J. (1999). *Globalization, human rights and education*. International Institute for Educational Planning. Unesco,

Nishigaki, T. (1999). *Multilingualism on the net*. http://unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm Accessed from the World Wide Net on 26 February, 2004.

Nyiri, K. (1999). *Global education and local communities*. http://unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm Accessed from the World Wide Net on 26 February, 2004.

Raymond, S. (2002). *Education and Globalization: How important is philanthropy?* *onPhilantropy*. <http://www.onphilantropy.com/op2002-10-04.html> Accessed from the World Wide Net on 11 February, 2004.

Riley, K. & H.Torrance (2003). *Big Change Question*. *Journal of Educational Change* 4. pp. 419-425. Kluwer Academic Publishers. Netherlands.

Rizvi, F. (2003). *Globalization and the cultural politics of race and educational reform*. *Journal of Educational Change* 4. pp. 209-211. Kluwer Academic Publishers. Netherlands.

Roman, L.(2003). *Education and the contested meanings of 'global citizenship'*. *Journal of Educational Change* 4. pp.269-293. Kluwer Academic Publishers. Netherlands.

Tomlinson, S. (2003). *Globalization, Race and Education: Continuity and Change*. *Journal of Educational Change* 4. pp.213-230. Kluwer Academic Publishers. Netherlands.

Vaks, L.J. (2003). How globalization can cause fundamental curriculum change: An American perspective. *Journal of Educational Change* 4. pp. 383-418. Kluwer Academic Publishers. Netherlands.

Woodhouse, D. (2001). Globalisation: Implications for education and for quality. AAIR Conference. Australia. F:\AairWeb\129.96.222.99\2001Papers\Woodhouse.doc Accessed from the World Wide Net on 11 February, 2004.