Problems of Closing the International Divide: A Critique Of The Globalisation Of Information Systems Education

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The impact of information and communication technologies with regard to the globalisation of education has been explored. Areas which have implications for the development of learning networks across countries and cultures are investigated. The paper attempts to contribute to some key debates: the notion of globalisation, the role of education in a global network, problems of tacit knowledge and finally arguments around cultural imperialism in the context of implications for Information Systems education.

1 Introduction
For many utopian writers\(^1\)\(^2\) the spread of global information networks heralds the demise of the nation state since frontiers are irrelevant to electronics flows. In this way production and distribution are conducted on a world stage which undermines national boundaries. This phenomenon is tightly coupled with the development of business organisations such as the so-called "network enterprise" a flexible, fast moving organisation which is time and space independent. Authors such as Peters\(^3\) see technology firmly is occupying the driving seat of change. They envision new forms of organisation as changing the basis of competition in the "knowledge based" industries allowing multi national firms to compete in a global market. For better or worse these arguments are increasingly being extended into educational provision\(^4\) and thus it is important to think critically about IS development and education examining multiple perspectives. Iacono and Kling\(^5\) demonstrate that increasingly computer technologies are linked to all socially valuable behaviour and are singled out as the panacea of all social problems. With this in mind, we attempt to gain insight into the implications of technology driven global IS education within an existing sociological framework. We consider some of the issues and argue that education in this manner could be at best a "technological fix" and at worst an example of cynical profiteering. The paper poses questions aimed at IS educators and professionals involved in developing educational networks.

2 Education and Globalisation
Distance learning approaches have been in mainstream usage for a considerable period of time. For instance the UK based Open University has been delivering courses since the early 1970's and is recognised as a leader in the area. Notably, the Open University now has its own Global Education department offering courses world-wide. When considering the impact on developing countries, most concerned bodies are enthusiastic for the future of distance learning approaches. Hall\(^6\) for instance recounts the interest of UNESCO\(^7\)

"...distance education showed that it could provide educational opportunities to large numbers of people who had previously been denied such opportunities, and that it could be done in a cost effective manner...The developing countries have found in distance education an answer to the previously almost insurmountable problem of how to take education to a large number of the population who are isolated geographically."

There are many reasons which underpin the drive towards global education:
Students from many different countries can work together offering a range of benefits and efficiencies.

Shared expertise can be brought from different countries and international experts can contribute to localised learning.

Access to education can be extended to educationally disadvantaged including developing countries and those located far from traditional universities.

Multi-cultural course content can be developed by repurposing materials developed in the West.

Importantly globalisation has led to the opening up of new markets and thus the opportunity to conquer new territories. Despite the recent economic downturn, the growing economies of the East are prime markets and the ability of the students there to pay higher fees is of relevance to Western educational institutions.

Computerised delivery mechanisms for distance learning have been on the agenda since the 1970’s. Until relatively recently, the subject has largely been restricted to a small subset of educational computing dedicated mainly to computer aided learning (CAL). However there is feverish optimism in educational circles largely due to the rapid assimilation of the Internet and associated learning approaches using the World Wide Web. Mason identifies four broad categories within which current educational technologies can be divided:

- text based systems, including electronic mail
- conferencing, real time chat systems and many uses of the World Wide Web
- audio conferencing and audio extensions such as audiographics, and audio on the Internet
- videoconferencing, one-way and two-way, and other visual media such as videoclips on the Web.

Education is viewed by many as the “killer application” for interactive multimedia, when liberated from the CD ROM by the World Wide Web it is seen as enabling mass, global access to interactive learning resources. Bates sums up the optimism:

"...technological developments already available or in the pipeline have the potential to revolutionise education and training as we know it”

There is, however, considerable literature which is critical of the globalisation of education. Mason provides a summary of the critical arguments grouped into four main categories: cognitive, educational, social and cultural. The cognitive argument is based on a critique of the new delivery mechanisms for most global education necessarily leading to “digitisation” and “computerisation” of knowledge. The educational argument against global education centres on the undesirable aspects of consumerism, wherein learning ceases to be about analysis, discussion and examination, and becomes a product to be bought and sold, to be packaged, advertised and marketed. Social arguments against globalisation are related to the breakdown of community. Education which has always been a net contributor to the positive benefits of physical communities, is seen as undermining still further the physical experience of community and offering instead a much less substantial substitute in the form of virtual communities. The cultural arguments against global education systems are concerned with imperialist attitudes, the loss of indigenous cultures and the relentless imposition of Western values. Global educators are seen as the new colonisers, insensitively spreading their own views of the world onto developing nations.

We will now expand on some of these themes and attempt to relate them to specific IS issues. The British Sociologist Anthony Giddens although not writing explicitly about information technology issues, writes extensively on the subject of time-space and globalisation. He identifies some key features of contemporary life which, in his view, distinguish it from what has gone before. He uses the term “high modernity” to characterise this view and divides the key features into four main categories: time space distanciation, disembedding mechanisms, trust and self identity. We will use this framework to structure our discussion concerning the implications of the globalisation of IS education.

3 Time-Space Distanciation And Disembedding Mechanisms

Giddens writes extensively on the notion of the changed conception of time and space in late modernity a key feature of which is that time and space are no longer linked to place. Place was previously linked to time and space but is now independent. This offers new market possibilities for education as a commodity involving new competitors, new customers and new entrants (small and large) competing on an equal footing. When coupled with the quasi incorporation of Universities, this
naturally leads to marketing of educational courses into emerging markets. This commodity of education is easily delivered by technology and thus education and knowledge is disembedded from local contexts of interaction. This is made problematic when considering the relevance of the global and local. For instance views of how learning should take place and on how learning actually does take place differ between time and place, as will be clear from reflection back on the recent changes in educational fashion in any part of the world.13

One of the central arguments Giddens makes about disembedding mechanisms concerns the stretching and disembedding of relations from local contexts leading to breaks with tradition. This is marked when considering philosophy, world view and the importance of tradition in local context. Consider the notion of truth. The Western scientific tradition has led to a belief in a Universal unvarying truth that is “waiting to be discovered”. In other contexts truth may be a matter for agreement within a social group and in the East (a “key market”) the influence of spirituality and religion is often much stronger than in the West. So translating this to teaching approaches, on the one hand it may be a matter of telling students the truth, on the other of enabling students to discover their own truth.14 In the domain of IS this leads to confusion. The philosophical underpinnings of many IS methodologies such as the UK government standard approach SSADM, lead to a hard “engineering” or technical approach to development15. Despite the efforts of the “soft” or interpretive IS community in the UK16, the technical, rationalist paradigm is still the dominant model for IS development. It could be argued perhaps rather simplistically that this will necessarily lead to an imposition of instrumental Western values on IS design and development. It is argued, however, that Western derived technology assisted distance education is likely to discourage development of indigenous approaches. Indigenous approaches have been seen to develop in other cultures, for instance Scandinavian design approaches are seen as distinctive from many others in the West with particular regard to attitude towards users and recommended levels of participation. No mainstream IS design approach based on for instance Indian philosophical underpinnings has yet emerged and the chances of this occurring decrease under the weight of Western education. The Indira Ghandi Open University itself was set up with help from the Open University and still uses much of the original repurposed material. Overall this could be seen to have weakened national initiatives to develop local educational provision to influence practice which might be better suited to local needs.16 The argument usually follows that “neutral” subjects (such as database design) can be taught easily under these conditions of technology assisted distance learning. Henderson17 reports from an empirical study in Queensland, Australia that:

“IBM course ware can never be culturally neutral and that developing nations looking for technological solutions to their education or training needs will not be well served by packages designed for a majority Western culture and given superficial cosmetic changes in an attempt to serve those markets”;

More specifically, Cox and Saunders18 report their experiences with designing internet business games for players from different cultural backgrounds. Their work indicates cultural differences in learning behaviours in the particular areas of strategy formulation, communication, decision making, intelligence gathering and problem solving. The development of IS is viewed by many with a technical disposition as culturally neutral. However, it is apparent from the literature that significant differences exist between countries and cultures with regard to the practical approaches to IS development and implementation. For instance, the importance of national culture on the systems development lifecycle is identified by Shore and Venkatachal19, Korpela, Soriyan and Mursi20 are engaged in an action research project to define and develop an appropriate methodology for sub Sahara Africa. They assert that:

“information systems methodologies used in industrialised countries are not applicable in Africa or other developing countries”

Differing skills of analysts in different national cultures are identified by Hunter and Beck21 and Ein Dor and Segel22. Understanding cultural and national effects on the use and management of IT has been recognised as vital for multi national firms by Robey and Rodriguez Diaz23, Harrison and Farn24, Kumar and Bjorn Anderson25 and Rohitratana26. Thus, when education is disembedded from local contexts there are important consequences for the appropriateness of IS development and management methodologies. Education on these issues must therefore be matched to the local context.
Let us now consider the importance of ethics in IS development as this is an issue which is of increasing importance in IS educational curriculum design. There are many systems of ethical beliefs across the world and yet IS ethics is a global issue due to interconnections between countries and cultures. Issues of security, professionalism, surveillance, privacy, reliability, intellectual property and access are world wide issues of concern. Indeed in the UK there exists a code of practice from the Association for Computer Machinery dealing explicitly with these issues. However, a literature search revealed that research dealing with the subject of IS ethics used a Western philosophical framework. Western ethical systems although powerful, are inappropriate to deal with the issues in other cultures and yet “repurposing” of materials is considered sufficient for course delivery to developing countries.

4 Trust and Self Identity

Conditions in late modernity also cause a need for greater trust in what Giddens terms “expert systems”, in this case global education systems and the information therein. Unfortunately the trust track record is poor. Sir Ron Dearing makes the point in the recent report on UK higher education that franchising agreements between British Universities and those in other countries have been seen to fail. The reasons for failure are varied but without wishing to cite particular cases from the UK National Press, largely they are due to poor quality. There are few, if any, guarantors that similar debacles will not occur with the delivery of education to developing countries via new technologies. Similarly there are no guarantors in a free market that quality products will emerge and customers will appreciate what they are buying is not “education” from a British University. One needs only to view the “quality” of broadcast satellite TV to witness the potential for mass trivia. In the absence of enforced standards, there is complete reliance on the ethics of the education providers in delivering an appropriate good quality “product” for their developing country based “customers”. The consequences of this strategy in the medium to long term may be as disastrous as many of the failed franchising arrangements.

Let us now turn to Giddens’ work on identity in modernity. The effects of destabilisation on social and personal life in virtual communities has been analysed at length by Poster, who speaks of the dispersal of identity through computer networking. We will not labour on this point. However, educational provision without personal contact removes the tradition of lecturing. Castells asserts that Universities are associated with “the intensity of face-to-face interaction” which is clearly an important facet of the University experience. In a practical discipline such as IS, the unstable role of education, teacher, learner, guru etc. in the global education network is associated with concerns over personal and professional identity. Universities are not simply training establishments but places where young adults often forge their identities under the influence of peers and experienced role models. The key thing that distinguishes distance education from conventional education is the situation the learner finds himself or herself in, that is separated from other learners in time and space. In this situation of physical separation it must be recognised that many aspects of knowledge are regarded as tacit in the sense of the description given by Schon. In a similar vein, Introna clearly argues that a large part of IS practice is tacit. It is well known that tacit skills can only be transferred through a process of socialisation (master to apprentice), the guru relationship is often alluded to both in the East and West. In a technology based distance learning environment between countries, it is questionable where and when this process of face to face socialisation will happen to enable the learners to draw on the source of tacit knowledge.

Our final point concerns existential anxiety, a condition where the role and purpose of a teacher, learner and student is brought into question. The rational, disinterested process of developing learning resources for students whom a teacher is likely never to meet could lead to a state of personal meaninglessness potentially affecting teacher and learner. When coupled with problems over transferring tacit skills and knowledge, the education of IS practitioners in an impersonal, remote and disinterested way may contribute to the dominance of a technical, rational view of IS development. Regardless of cultural context the IS community has provided detailed critique of the limitations of the instrumental approach to IS development.

5 Conclusions

Our analysis has attempted to draw on existing critique of the globalisation of higher education and consider the relevance of these arguments for IS education. We see the implications as being associated with the lack of
emergence of an indigenous approach to IS development in those countries served by global distance learning. The analysis used the example of the imposition of Western technical - rational ethical systems and IS development methodology. The drivers for moves to technology assisted distance learning are associated with the reducing cost of communication channels combined with a desire to conquer new global markets. However faceless distance learning may ignore the importance of tacit and social skills especially important in IS development. The commodification of education ignores the highly personal and often spiritual experience attached to it by some learners. Our final example concerns the development of a multimedia kiosk in Arizona USA which allows people to divorce in the same way as they would obtain cash or cancel a standing order. This is an example of how, when taken to the extreme, technology can infiltrate and trivialise human existence in the name of efficiency. In the same way it is important that IS distance educators do not view efficiency as an end in itself and ignore the diversity of their students and the richness of our discipline.

References and Notes

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