Acculturation in an Information Technology Discourse Community

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Abstract: Rapid advances in information technology and telecommunications (IT and T) are impacting on a changing world in which boundaries, whether they are at local, national and international levels are now less clearly marked. The so-called information superhighway is reaching and linking many regional, rural and remote communities so that the world itself has become a small global village. This leads to the assumption that the power of information technology and telecommunications is inescapable and unresistable. A logical response to a changing and challenging world is to prepare "global villagers" for acculturation into a new IT and T discourse community. However, potential IT and T users are human not virtual beings and fear, anxiety, confusion, resistance and inspiration are part of the acculturation process towards an IT and T discourse community. In this paper the concepts of acculturation and discourse community are discussed and applied to IT and T discourse generally and educational multimedia in particular. A paradigm shift is occurring in education with the introduction of IT and T, and strategies have to be developed to facilitate acculturation of new users to this paradigm to prevent hostility and rejection of the advantages they bring to regional, rural and remote communities. Three aspects of acculturation in education are presented and discussed. The implementation of acculturation in the context of IT and T is explored through a description of the provision of rural health education and training opportunities in the small Island State of Tasmania.

Acculturation as A Psychological Process

Mead in Williams (1972) defined socialisation as "a process by which human children born potentially human, are able to function within the societies in which they are born". However, socialisation is a rather broad concept. Williams (1972) discussed the fine distinction between socialisation and acculturation, arguing that the former refers to the process of transmitting human culture whereas the latter is the process of transmitting a particular culture. However, in an interactive world in which people of different cultures are engaged inter culturally, the question of cultural identity needs to be addressed. In an intercultural interaction, acculturation is a significant phenomenon. It is a process in which people of a different culture have adapted the new culture (Brown 1994). It is not a smooth process with feelings of confusion, resistance, and reluctance and sometimes suffering evident at all stages.

In education, acculturation takes place when learners from a different culture learn a new language or face a new educational paradigm that requires a partial or whole orientation to a new cultural discourse and become members of its discourse community. The acculturation process normally consists of the following stages, cognitively and affectively:

- *Conflict:* This is a shock stage as a new culture is rejected as a whole, due to negative attitudes towards the new culture.
- *Confusion:* This is the time when negative attitudes toward the new culture are challenged by other people or events, or when the new culture becomes a part of that person's life.
- *Exploration:* Accidentally or intentionally, a few 'things' about the new culture are discovered.
- *Familiarisation:* Learning more about the new culture in order to function well in it.
- *Acceptance:* The new culture has been accepted. The crisis has disappeared.

These stages are not necessarily sequential.

Acculturation in an IT and T Discourse Community

Swales (1990) presented six defining characteristics that are necessary for identifying a group of individuals as a discourse community:

- A discourse community has a broadly agreed set of common public goals that may be formally inscribed in documents or be more tacit.
- A discourse community has mechanisms of intercommunication among its members. The participatory mechanisms will vary according to the community: meetings, telecommunications, correspondence, newsletters, conversations etc.
- A discourse community uses its participatory mechanisms primarily provide to information and feedback.
- A discourse community utilises and in turn possesses one or more genres in the communicative furtherance of its aims. A discourse community has developed and continues to develop discoursal expectations. These may involve appropriateness of topics, the form, function and positioning of discoursal elements, and the roles texts play in the operation of the discourse community. In so far as genres are how things get done, when language is used to accomplish them, these discoursal expectations are created by the genres that articulate the operations of the discourse community.
- In addition to owning genres, a discourse community has acquired some specific texts. This specialisation may involve using lexical items known to the wider speech communities in special and technical ways, as in information technology discourse communities, or using highly technical terminology as in medical communities.
- A discourse community has a threshold level of members with a suitable degree of relevant content and discoursal expertise.

Swales' concept of discourse community can be applied to IT and T discourse. It is argued that IT and T does not exist in a cultural vacuum. It has become "a cult with its own esoteric language and rites, 'in' groups and 'out' groups, and above all faith in the intrinsic value of electronic communications" (Moran 1997). Aoki, Fase & Stowe (1998) introduced the term 'virtual micro culture' as a unique group dynamics, which arises as a result of frequent interaction and collaboration toward a common goal. It has its own culture and anyone who is exposed to it will go through a 'socialisation experience', namely acculturation. The stages described above reflect well the acculturation process experienced by its users when IT and T are introduced.

A review of the literature on the role of educational multimedia in the past decade supports the view that acculturation is a powerful phenomenon inherent in various experiences involving educational multimedia. While the business world has embraced IT and T wholeheartedly, educators, in comparison, have been rather slow in accepting them in teaching and learning. In some cases technological resistance occurs due to passive or active resistance to adopting technology (Allen 1997). Though the concepts 'teleteaching', 'virtual classroom', 'Internet-based teaching' have been introduced during the past decade and occur in various curriculum discussions, in reality the full adoption of IT and T into practice is still a long way off. Teaching is still conducted in a predominantly non-virtual context, in which the traditional resources are teachers, books and blackboards (or overhead projectors). But, significantly, there has been a mixture of feelings such as hostility, rejection, fear, and confusion among educators in relation to the use of IT and T in teaching and learning. According to a study by Holt & Thompson (1996), old attitudes, held by long-time serving staff, limited vision of what was possible in the flexible learning mode. To facilitate the experience of acculturation, it is desirable to start with a relatively clean cultural slate than to inherit a fully mature, but unreceptive culture.

There are three aspects of acculturation in education. Firstly, IT and T experts are contributing factors to the negative attitudes among IT and T prospective users. The worst case is when such experts hold the assumptions that IT and T is the magic solution to education and that teachers are secondary in the teaching and learning process. IT and T are therefore the magic wand, which can effectively replace teachers. The curriculum concept 'learner-centred' is sometimes confusing in the sense that it mis-signals a shift of significance from teacher as a primary source and learners as a secondary source. In other words, some may interpret learner-centred curriculum as role-oriented rather than process-oriented. This creates a misconception that IT and T can replace the teacher. However, if 'learner-centred' is interpreted as 'learning-centred', the emphasis is not on the comparison (whether implicit or explicit) of students' and teachers' roles, but on the process of learning itself. In this way, IT and T can play a significant role in improving learning in general and in enhancing positive attitudes towards IT and T in particular.

Secondly, a paradigm shift is occurring in education. According to Roberts (1997) this is "the rejection of one set of values and ideas about education and the adoption of a new set with regards to what constitutes effective pedagogy". This paradigm shift is occurring worldwide but faster in some parts than others depending on the availability of resources, existing infrastructure and the stage of development reached.

A new paradigm should not be regarded as old wine in a new bottle as it is not only the technology that counts but a new spirit with a new discourse community that has emerged. Therefore strategies have to be planned carefully to facilitate acculturation of current and prospective users to a new educational paradigm created by IT and T. Otherwise the acculturation experiences can be painful and sometimes destructive. As a result, hostility can be seen in headlines in the media such as 'students damaged computers in class' and 'users desert computers'.

It is important to involve users in the curriculum-decision making process in their acculturation into an unknown or less familiar territory. In the past, IT educators have tried to reverse the direction of discourses by placing IT in the discourse of education rather than placing education in the discourse of IT. For instance, Moos' work has influenced the development and use of instruments to assess the qualities of the classroom learning environment from the perspective of the learner (Waldrip & Fisher 1997). Though IT and T can create a perfect virtual learning environment, learners should not be treated as virtual beings. They bring to a virtual class and the acculturation process their personal, social and cultural backgrounds, which shape their learning styles, educational attitudes, and interpersonal relationship.

Thirdly, there should be a good harmony between learning IT, learning about IT and learning through IT. Otherwise, the perception of IT and T in the curriculum will be challenged.

Stage 1: *Learning IT:*
This is a hands-on practical knowledge about IT and T such as word-processing, emailing, Web-navigation, scanning.

Stage 2: *Learning about IT:*
This involves concepts and issues relating to IT and T such as interactivity, ethical consideration, security etc.

Stage 3: *Learning through IT:*
This involves literature search, conferencing with teachers and peers, publishing etc.

These three aspects should not be treated in a linear progression. In other words, the syllabus should not proceed rigidly from stages 1 to 2 and 3. In an interactive dynamic learning process, users may start with their need to share with others their views on certain issues (learning through IT). Then they proceed with how to use the Web for interacting with others (learning IT). While doing this, they are aware of the use and limitations of the Internet (learning about IT).

Rural Health Education: an Example of Acculturation

We have discussed the concept of acculturation in relation to the culture of IT and T. Now the focus is on the implementation of acculturation in the context of IT and T and rural health education in Tasmania.

Thomson and Walker (1997) demonstrated the role of communications technology in health care provision through identification of various communications techniques and analysis of these in relation to health care delivery and health professional education. They showed how communications technology provides a logical link between education and health care delivery by acting as a tool for change to the knowledge, skills and attitudes of health care professionals towards rural health.

Walker (1998a) noted that the level, quality and cost of telecommunications infrastructure for rural and remote populations in Australia is being addressed via the Regional Telecommunications Infrastructure Fund (RTIF), known as 'Networking the Nation'. The aim is to reduce the gaps in the quality and cost of telecommunications services between metropolitan and rural Australia. She also explained how the Commonwealth Government in Australia is establishing and funding a number of university departments of rural health. In Tasmania, Australia's small, rural island state, a University Department of Rural Health was set up in late 1997. It acts as a catalyst for the development of a comprehensive and co-ordinated approach to rural health education, training and research across the State and across the range of relevant disciplines and professions. The aim of the Department is to provide access to education, training and support opportunities for rural health workers and trainees through an open and flexible learning framework supported by an IT and T base. It is built on a principle of partnership with health service providers and communities and is part of Tasmania's developing Telehealth Network to provide access to health services and rural health education services using technology as a tool. The Department has implemented a series of strategies to enhance the

implementation of information technology and telecommunications in rural health. A top priority is acculturation into the new IT and T discourse community.

People who are involved in rural health care are drawn from:

- health professionals, directly responsible for patient care e.g., doctors, nurses, dentists, pharmacists, radiologists, pathologists and technicians;
- administrative and support staff involved in health care administration e.g., business managers, service development managers, patient information management officers and corporate strategists.

Increasingly, many of these people do not work in rural areas but are based in urban-based large hospital environments. Through Telehealth, services are provided at a distance and rural, locally based health care providers have a vital role to play in ensuring successful delivery of services and enhanced health outcomes. However, most health care workers do not have a sound understanding of the fundamentals of Telehealth and the use of IT and T for education purposes (Hasman & Albert 1997). Many exhibit feelings of hostility, rejection, fear and confusion in relation to use of IT & T in health care provision and access to education and training opportunities. This, in tune, reflects negatively on consumers of rural health services. It makes it difficult for practitioners to make decisions about the usefulness of applications and to express their needs in terms that can be understood by informaticians and IT and T personnel. Education and training in the place and use of IT & T is needed at a variety of educational levels, in different modes, for various professions in health care and with different types of specialisation.

In Tasmania, the Department of Rural Health and the State Department of Health and Human Services have embarked on a collaborative project. This will see the progressive roll out of Telehealth and IT and T education and training to meet an increasing demand for information management and the use of information and telecommunications technologies to enhance health services, to access education and training, and to assist in the acculturation process.

A major objective is to assist the change process to a health information management and information technology and telecommunications environment through training, including the use of IT and T to deliver training that is customised to workplace needs. It requires strategic planning across a range of services and collaboration in use of shared resources. It requires training that is based on the recognition of the role that acculturation plays in a new discourse community (Walker 1998b).

At the same time, the University Department of Rural Health is establishing a network of Rural Health Teaching Sites (RHTS) in collaboration with the Telehealth Network. The Department is facilitating rural health education and training programs for undergraduates (medical, nursing pharmacy and allied health students) in targeted rural areas and is building on the intellectual capital of these rural areas by providing on-going teaching, research and service development support to resident health care workers. Each Site has a defined catchment area and provides accommodation and learning facilities with computing, fax, internet access, audio and videoconferencing. An important part of the program is provision of training in the use of the technologies.

The three aspects relating to the role of IT and T have been taken into consideration: Learning IT, Learning about IT and learning through IT. Through the RHTS rural users have sound and reliable access to IT and T. Teleteaching and teleinteraction, with awareness and sensitivity to rural health issues and rural users, have been carefully planned and introduced. The Department's IT strategies have targeted rural health workers who have been disadvantaged by their isolation from the IT and T discourse community in rural health. For example, the Australian Physiotherapists' North-East Journal club runs internet access lunch time get-togethers to share the meaning making process about IT and T with local health staff and students. This event is organised and co-ordinated by the University Department of Rural Health. Without this effort acculturation into the IT and T discourse community will never take place.

Conclusion

IT and T is permeating deeply into various aspects of society. The IT-based superhighway is travelling to many remote parts of the world and has brought with it the technological power to make human communication dynamically interactive and effective. It has certainly brought people in the world much closer. However, the power of IT and T is often viewed without taking into consideration the potential conflict between IT culture and the acculturation experienced by those who are introduced to it. While IT and T can create many virtual experiences, we must remember that potential IT and T users are human not virtual beings and fear, anxiety, confusion, resistance and inspiration are part of the acculturation process towards an IT and T discourse community.

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