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Article abstract

In the last decade, China and India have seen large increases in their literacy and graduation rates and an increasing emphasis on distance education and training initiatives. They are examples of nations in which economic and technological initiatives have been aligned in order to produce outcomes that ensure the population will thrive in the 21st century. However, no country can simply equip its distance education system with updated technologies and expect to be fully prepared for 21st century economic challenges. This report outlines the consonances and dissonances of distance education (DE) in China and India and the policy alignments required for its stable development.

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Technical Evaluation Report

67. Distance Education in China and India: Collectivism and Connectivism

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Abstract

In the last decade, China and India have seen large increases in their literacy and graduation rates and an increasing emphasis on distance education and training initiatives. They are examples of nations in which economic and technological initiatives have been aligned in order to produce outcomes that ensure the population will thrive in the 21st century. However, no country can simply equip its distance education system with updated technologies and expect to be fully prepared for 21st century economic challenges. This report outlines the consonances and dissonances of distance education (DE) in China and India and the policy alignments required for its stable development.

Keywords: Distance education policy; China; India; economical alignment; technology; collectivism; connectivism

Introduction

> *Independence must begin at the bottom. Thus every village will be a republic ... having full powers. It follows, therefore, that every village has to be self-sustained and capable of managing its affairs. Thus, ultimately, it is the individual who is the unit… In this structure composed of innumerable villages, there will be ever-widening, never-ascending circles. Life will not be a pyramid with the apex sustained by the bottom*. (Mahatma Gandhi, 1946)

The agricultural term 'monoculture' refers to the practice of growing one crop over a wide area deemed inferior due to soil conditions, short growing seasons, and other factors. The uniform crops yield greater harvests and prosperity in the short term, but a single variable can destroy the entire community's social, economic, cultural, and political sustainability. Non-agricultural disciplines have adapted this term to describe a situation in which a single entity sanctions one solution for a seemingly ubiquitous circumstance (Blackmore, 1999; Reimann, 2008). For example, Geer (2003) defined Microsoft's global dominance in technology as a monoculture. His

concerns were not couched in the usual cross-platform debate of PC versus Mac; rather, he pointed to a flaw that could destroy businesses and governments utilising this monoculture – security mediocrity (Udell, 2004). Once a hacker 'opens the door' to one virtual data warehouse in the Microsoft community, all warehouses become accessible, independent of their physical time and space. Geer further postulated that the individual business or government is accountable to other community members to remain vigilant in relation to this flaw, which is created by the single, shared integrated pattern.

If Geer's warning is justified, the Microsoft monoculture will cease to cause convergence among users and will lead to user divergence. Since Microsoft has not provided a wide range of solutions for a variety of global needs, the monoculture is already becoming an open-source polyculture in which community members champion solutions based on specific needs. If community dialogue is facilitated and the members' solutions are widely distributed for analysis and synthesis, their global contribution will become greater than the sum of their parts. Then, as community dialogue serves as a feedback loop to Microsoft, the changes generated will positively affect future policies based on the global community's needs. By connecting the collective of individual needs to Microsoft, its future policy and decisions become more relevant to all stakeholders.

A similar situation could occur in the development of distance education (DE) in the major developing powers of China and India because the governments of both nations have taken a generally monocultural approach to developing educational initiatives for their populations. In the current report, the levels of technological consonance and dissonance in these two sets of national policy are reviewed, and a global flaw is discussed that may jeopardise the sustainability and convergence of their distance education (DE) initiatives.

Distance Education Policies in China and India

Consonance

When global interconnectedness was in its infancy, developed countries took the lead in defining DE development, largely in relation to Internet access. Until recently, the DE approaches of China and India have emulated the traditional teacher-centred pedagogies and have provided asynchronous educational tools for learners through correspondence, TV, radio and the Internet. The two countries have begun to add the latest DE multimedia to their methodology, including synchronous communication methods between teachers and students. Today, China and India have the most extensive networks of open universities and DE institutions in the world, which provide a continuum of education from kindergarten to higher education and a nontraditional holistic view that supports lifelong learning and remediation strategies for adult learners. Their adult learners include full-time urban workers and rural and farming communities. Furthermore, their agendas anticipate an era of future employment opportunities and economic sustainability that is based on support for teacher development and professionalism.

While China stimulates its economy through education initiatives largely independent of the rest of the world, India enters into international partnerships, for example in the areas of workplace

learning and the teaching of English in evening classes (The Economist, 2008; Jamtsho et al., 2009). In India, parents regard their children's education as more important than their own, and they view education as an opportunity to improve the family's economic status, especially if it includes the study of English (Crichton & Childs, 2008; Chen, Wang, & Chen, 2009; Jamtsho et al., 2009). Both countries actively use a far broader range of DE technologies than is used in the West. The significant effects on their communities have already been broad and deep (Chen, Wang, & Chen, 2009; Jamtsho et al., 2009).

Dissonance

DE developments in China and India differ owing to diverse patterns of population density. China's western region, similar to Canada's north, is sparsely populated. These are the most isolated and poorest areas requiring the greatest government assistance to attract teaching professionals and to maintain Internet, TV, and radio access for educational initiatives. India's population distribution resembles that of the United States, with more urbanisation and fewer isolated areas. This distribution attracts more private industry solutions across the country and distributes government spending more evenly although not necessarily more equitably. An economic difference between these two patterns is that the poorer regions in China are likely to experience more impact than the poorer Indian regions if their governments reduce economical support for educational development.

A Flaw: Collectivism without Connectivism

Although the ongoing costs of maintaining educational infrastructures remain fixed, government spending is inevitably tied to some form of economic prediction. Any leakage in the collective or any chance occurrence can lead to the collapse of both policy and practice. Such leakage occurs, for example, when international students fail to return to their own countries after graduating abroad. The largest proportion of international students in Canada is from China and India. The Survey of Earned Doctorates (King et al., 2006) has indicated that 72% of international doctoral students intend to remain in Canada upon completion of their studies. The ripple effect of this decision is complex, with an immediate loss for the home countries of the research and development advantages the students have gained in their studies. Similar losses of benefit occur when students graduate from higher education institutions in their own countries and leave for better career opportunities abroad. In the 1990s, for example, India experienced almost universal emigration of their graduating computer sciences students; however, as career opportunities have multiplied in India, their graduates have tended to stay. Clearly, governmental attempts to harmonise industry and education are fragile (World Bank, 2000).

The long-term effects of national disasters can also destabilise development. A historical example of such devastation was the Great Irish Famine (1845-49), in which single variant potato crops were lost due to blight (Gkotzaridis, 2006). Similarly, in 1959-61, China endured a famine in which over 20 million people are thought to have died. The famine had lasting effects on the health and economic growth of the country. The sharp drop in Chinese grain harvests in 1958 created a similar flaw in the monoculture created by the nation's agricultural collectivisation

programme. The superior communication technologies available in China today could generate massive immigration and a very different demographic, political, and cultural landscape from that of the past and present (Chen & Zhou, 2007).

These examples demonstrate the difficulty of predicting the economic and educational future of a nation. As interconnectivity spreads globally, individuals become more empowered and the predictability of outcomes for individual countries diminishes. To counter this problem and to enhance education and economic viability, a nation may attempt to create an integrated information environment of student and worker data systems, as in the European Union (EU) (Euroactiv.com, 2008). The EU has defined common standards for education and shared processes and services, which facilitate interoperability between countries. It updates accountability measures and systems to include outcome measures that reach beyond the scope of a single country, while investigating dynamic and integrated technology infrastructures across multiple borders. It is piloting projects for ePortfolio systems to create personal digital archives for students and workers while augmenting teacher training. Despite these positive initiatives, the EU's membership continues to experience negative economic growth, and the EU's ability to anticipate the educational consequences of the shifting global economy remains elusive.

Four Themes

From these examples, four themes emerge. Firstly, the *human aspect* of education is a key component in the successful alignment of economic and educational initiatives. The need for the development and maintenance of human relationships is essential in social and cognitive development, assessment practices, and learning styles (Crichton & Childs, 2008). Secondly, connected *feedback loops* between the teaching-learning environment and government should drive curriculum development in centralised educational initiatives that are aligned with economic policy. Otherwise, courses become generic products that do not meet the needs of learners or industry; the teacher's role is relegated to that of gatekeeper rather than of a respected professional; and programme administration becomes unruly (Chen, Wang, & Chen, 2009). Thirdly, the underlying tenets of *communal learning* need to be respected in computer-based instruction so that learning can be effective and relevant. Such courses must recognise the importance of allowing participants in different areas to experience learning in various ways, to be actively engaged in the process of acquiring new, pertinent knowledge, and to express their learning according to their strengths, experiences, and goals. Two successful examples in this respect are the community learning centres developed in poverty-stricken areas of China by Tsinghua University and the village information centres of Pondicherry, India (Chen, Wang, & Chen, 2009; Larson & Murray, 2008).

The final emerging theme is that change in DE is not driven only by available technologies but also by the winds of *political and economic change*, which determine the maintenance of technology usage. Changes in DE require analysis that differentiates between cutting-edge and merely trendy policies and practices. Change must not be for the sake of change; rather, it must be contemplated in the light of its potential impact on individuals and communities of practice. For lifelong learners, it is important to maintain, if not increase, information technology literacy

and to find ways of applying information technologies that maximize each DE community's strengths and abilities, whether their members reside in western China, urban India, or northern Canada (Baggaley, 1999).

Conclusion

Since the early 20th century, the governments of China and India have maintained national policies to ensure that their vast populations, each numbering over a billion people and together representing approximately one-third of the world's population, are educated for the 21st century. As well as aligning their educational policies and their economies, they have created high priorities for technological immersion and global interconnectedness. Owing to incongruent population density and poverty levels, both governments have invested in diverse technologies and have implemented several generations of DE nationwide. Both have directly attributed increases in the literacy rates of urban and rural districts to these policies and action plans.

Past success does not predict future solvency in a global economy, however, as the current global downturn is demonstrating. In 1908, Henry Ford perfected the moving assembly line on which workers became 'one part' experts (HenryFord.org, 2009). By retooling his factory, Ford became an automotive leader. A century later, the Ford Company faces government bailouts, factory closings, and redundancies. Nations such as China and India cannot simply retool their DE systems with updated technologies and expect to be fully prepared for 21st century challenges. As demonstrated in the case of the Microsoft monoculture, it is the vigilance of the polycultural community that generates just-in-time learning and solutions when unexpected events attack the global system.

Too often new educational initiatives are introduced with great fanfare. However, in many cases, without proper guidance, appropriate communication systems, and careful policy alignment, they flounder. The challenge is to design a higher education system that meets the diversity of teachers and learners, provides individual versus collective learning preferences, and seeks flexibility in multiple modes (Bonk & Graham, 2006). A further responsibility is to provide evaluation and feedback in stages so that the results of global changes can be anticipated, and ripple effects in one area do not create a tsunami in another, thus potentially destroying a nation's social, economic, cultural, and political sustainability.

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