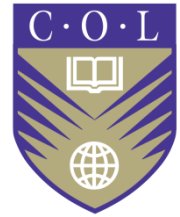


Reflections on Collaborative and Networked Learning



by

*Professor Gajaraj Dhanarajan
President, The Commonwealth of Learning, Vancouver*

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Introduction

1. Not too long ago, I was reading a book entitled *Surviving the Information Age* by Jim Carroll, ¹ a popular Canadian journalist very much on the "public speaking circuit". In that book, Carroll had the following quote of Kenich Ohmae, a Japanese guru, to political and business leaders:

"It is hard to let old beliefs go. They are familiar. We are comfortable with them and have spent years building systems and developing habits that depend on them. Like a man who has worn eyeglasses so long that he forgets he has them on, we forget that the world looks to us the way it does because we have become used to seeing it that way through a particular set of lenses. Today, however we need new lenses. And we need to throw the old ones away."

2. Ladies and Gentlemen, this conference is about *Collaborative and Networked Learning*. In pursuing this debate, you are in fact considering, on the one hand, the threats to a system of education that go back to some thousand years and, on the other, the challenges that are emerging to the forefront of human development. Those of us in the business of providing training and educational services to our nations, have a central role to play in confronting these challenges. And, more importantly, we can also benefit from them. If we

wish to benefit, then we must have the foresight, courage and determination to discard a few old lenses.

3. I have included training in the same breath as education. I find it difficult to separate the two. For many from the university sector, the vocationalisation of higher education has been a difficult issue to confront. This discomfort was carefully and sensitively voiced not too long ago, by the President of the Association of Indian Universities, Professor Navin Nigam.² Professor Nigam bemoaned the fact that universities "have become more utilitarian in their focus" and perhaps the "pendulum has gone too far" in this direction to the detriment of enrolments (and therefore funding) in humanities, social sciences, literature, art, culture and ethics. While it is difficult not to express sympathy for Professor Nigam's plea, it is also pertinent, in the context of a new global millennium, to give hearing to another voice from this country. That voice belongs to Professor Yoginder K. Alagh³ who argues for a "*structural reform of Indian education*". In this reform, higher education is expected to provide a "*truly responsive and interactive environment*" for the pursuit of studies in science and technology which has a major role to play in "*the emerging context of globalisation and competitive economy*".

4. The debate that is taking place is not unique to India; it is a concern that is pan-global. Against this debate is the expectation that in *a New World*, equality of opportunity to all will be the most important measure of success for human development. Being equal would also include the *right to work and be economically productive*. In such a circumstance, separating training from education or *vice versa* will not be prudent and acceptable, since both are aspects of an essential service that is a central concern for the nations of the world. Some countries take this concern more seriously than others do; it has become a part and parcel of the political debate. You may recollect the unambiguous statement of the Honourable Tony Blair, the British Prime Minister, about the ". . . *three priorities for (his) government*(should his party come to power) *would be education, education and education*. (And) . . . *education is not a one-off event for the under 18's . . . (it) must be based on wider access to higher education and continual opportunities for all adults to learn throughout life.*"⁴ In another context, the call of Clinton (after his second electoral victory) for "*a new land (in which) education will be every citizen's most prized possession. Our Schools will have the highest standards in the world, igniting the spark of possibility in the eyes of every girl and boy. And the doors of higher education will be open to all. The knowledge and power of the information age will be within reach not just of the few, but of every classroom, every library, and every child.*"⁵ The call for more education (UNESCO)⁶, efficient delivery of education (World Bank)⁷ and relevant and useable education (UNDP)⁸ has been one that has preoccupied not only national governments but also international and developmental agencies.

Networked learning

5. The changing nature of students, educational context and the environment all favour broadening the forms of educational delivery. Two other factors add further weight to this

call for change. These are the ever-changing computing, information and technology environment and the ever-increasing financial burden. In his presidential address, Professor Nigam expressed a certain sorrow at the spectre of his Government's intention to categorise support for higher education as a 'non-merit subsidy'. There are fears that standards would erode and quality would suffer if the higher education sector were forced to live with a less than 90% subvention. Not just in India, but in most parts of the developed and developing world, Governments are taking a much harder second look at funding for higher education. While political leaders exhort for more and different forms of education, they are also demanding greater academic transparency and administrative efficiencies from the system. There is sufficient international resonance from many quarters to urge for the reform of higher education.

6. Any reform of the educational system of this great country or others from across the Commonwealth cannot ignore a role for technology in the delivery of that education. There are many reasons why this is so, but a few stand out as immensely important. They are:

- **The short supply of talent:** On one hand, India is a land filled with highly skilled and talented human resource in all fields of human endeavour. On the other hand, critics of the country's higher education system have constantly bemoaned the fact that a significant proportion of the academic talent found in the 229 universities and some 8,000 colleges are mediocre. Mediocre academics create mediocre learning environments. Today, we have the tools to get the best academic talent that India has to create knowledge and distribute that knowledge across the country and also across the world. The Western Governors 'Virtual' University initiative among the North Western States of the USA is attempting to do the same thing. This attempt envisages going beyond campus walls to source academic 'teaching'talent. Contributors to courses will come from business, commerce, industry and government, and users of the courses will include ordinary people along with thousands of college and university students. This can happen because there is courage and a willingness to use the technological tools of today.
- **An unmet demand:** During the past 50 years, India has expanded her provision for higher education from a meagre 200,000 to an astronomical 5,000,000 college and university places. However, she is still only able to provide this opportunity to about 500 per 100,000 inhabitants; compared to say Canada, which is able to offer post-secondary education to about 5,000. To be a globally competitive economy, the renewal of people's knowledge, especially those in the workforce, is vital. If we also include our desire to build a nation of informed and knowledgeable citizenry for the functioning of a healthy democracy, then this country's demand for educational opportunities is truly staggering. No conventional system of educational delivery can meet this volume. Using technology may provide some relief and using technology in partnership with others may provide a lot of relief.

- **Changing patterns of learning:** Full-time study within time tabled constraints of the classrooms is only accessible to the few; for many who wish to study, learning will have to occur at a time and place of their choice. The eight (8) open universities, 59 correspondence study departments and the large number of overseas and commercial suppliers of knowledge products are a measure of the growth and demand for non-full-time studies.
- **Just in time training:** The rapid changes that are taking place in the workplace will require training to be delivered quickly. Such training need to be high speed, low cost and should reach small and large groups. Traditional ways of delivering training is time consuming, labour intensive, socially disruptive and costly.
- **Information explosion:** It is said by those who study these developments, that the total amount of information that becomes available doubles every four to five years. Stating it another way, the total of all human knowledge that was available to an undergraduate in 1997 will be less than 1% of what will be available to a student in the year 2050. Teachers have to become experts in helping learners navigate through this sea of information rather than pretending to be effective transformers of that information into knowledge for their students. Students must be trained to bring about that transformation. Those who survive this information explosion will be able to deal with it effectively, even more importantly, turn it into knowledge.
- **The ever-changing nature of learning technologies:** The technologies that are emerging and predicted to emerge are friendlier, faster, cheaper, more accessible and will have greater capacities. Programme developers need not possess complex computing skills - the machines will. Willing teachers, supportive administration and motivated learners can together create a learning environment that is open, interactive and challenging.

7. There are other factors that seem to support the case for greater use of technology in delivering education. Frances Cairncross, in her recent book entitled *The Death of Distance*⁹, postulated a set of trends in the new communication environment which will influence the way we live, work and play. Some of the trends she anticipates have a direct relevance to our discussion. These include:

- **The death of distance:** The cost of communication will not be determined by distance even in the most regulated environments. Reaching out to students through the electronic highway will be determined more by willingness of the educational providers to utilise the newer technologies than by fear of inaccessibility because of communication costs.
- **Cost of appliances** will continue to drop even as the computing capacities of such appliances increase. The cost of the Networked computers of the future should decrease to the level of present day televisions.

- **Location does not matter:** Providers of educational services can be located anywhere on earth and can reach the users of the educational services wherever they may be as long as there is a basic communication infrastructure. Even today, Indian students already have access to, say, courses from North America without having to be in North America. Similarly, courses from India can and should travel across the globe.
- **The size of the organisation** providing the educational service is not relevant; what matters is the quality of the service. Small and specialised organisations can offer their products to large groups and be globally competitive.
- **Content customisation:** Sophisticated pedagogy can facilitate individuals to customise their learning needs. Learning can become either a multi-channel or a mono-channel experience. The final authority on customisation will be the expected learning outcomes of the subject and the learning preference of the student.
- **People as the ultimate scarce resource:** The really difficult challenge for institutions will be to recruit people with the necessary skills to perform the tasks required as well as train and retrain those already in service to work in the new environment.
- **Emergence of globally used language:** The emergence of English as a dominant second language of science, technology, business, and international relations as well as education and training will mean the availability of globally useable knowledge products. There will be an increase in the choice of educational and training courses.
- **Communities of culture** can be developed. The opportunity to make available content in other languages, apart from English, to a larger audience will become feasible. Declining cost and ease of use of communication tools will mean the availability of a vehicle to disseminate other cultures and traditions.

8. Advocating the use of technology and especially one that propounds *networked learning* to deliver education will require some fundamental changes in the way things are done. These changes will challenge institutions that provide the educational service; they will test user capability of such services and question government policies and regulations. The following may be important for serious consideration:

The first challenge is the re-orientation of our **teachers and the pedagogy** they apply to their vocation. The fraternity still has to come to terms with a new type of learner and a learning environment that encourages the student to be independent. Whether it is a radio or television programme, print or web-based instruction, there is the recognition that individuals are capable of self-learning if provided with cleverly and sensitively designed instruction, but poorly equipped to utilise the technology imaginatively and non-mechanically.

The second challenge is to **change the nature and structure of our 'teaching' organisations**. Their traditions of teaching and their views on learning have resulted in organisational structures that are almost and completely centred on faculty. From the design of the curriculum to its transformation into learning experience; from decisions relating to assessment of prior learning to elements of exit standards; from administrative arrangements to academic governance; and from delivery systems to learning schedules.

The third challenge is to remove **the 'time' driven element** from today's schools, colleges and universities. These are ruled by time, prescribing when, in his/her life, a student can or is ready to learn and the length of time required for learning. As a task force report to the International Council for Distance Education ¹⁰ recorded: *"The instructional paradigm, therefore, holds learning prisoner to time constraints applied by an arbitrary force or by the preferred work schedule of a faculty member. In the desired (new) learning paradigm, learning becomes the primary driving force and, since learning can occur at anytime and at anyplace 24 hours every day, the constraints of time are removed.* The technologies allow those who provide education to break the rule of time.

The fourth challenge is overcoming the perceptions and the fear of **faculty to the changing nature of their roles and values as well as the rewards** in the new learning environment. There is a real, though unfounded, fear on the part of faculty about losing total control of the teaching and learning environment. This fear manifests itself in many forms. Some teachers express anger at the perceived loss of academic freedom and others express disdain at the 'commoditisation' of knowledge; there are those who express dismay at the loss of employment and yet others worry about loss of quality. Learner centrality in the educational environment does pose enormous challenges to the teacher. It requires pedagogical skills, especially in a technology-mediated environment which many of today's teachers are either inadequate in or totally lacking. Serious steps have to be taken to reduce the anxiety of teachers and alienating them from a development that is so crucial to academe and its survival.

The fifth challenge is the **appropriateness of the curriculum**. Those who provide educational services, whether of the formal or informal kind, cannot continue to behave as though their services and the knowledge products that they develop have little relevance to the world of work and living. The real world has been going through a dramatic change - learning and training are needed by people who will function in a globalised economy and the information age. These learners need to understand themselves through an understanding of the world. UNESCO's Delors Commission ¹¹ elegantly describes the framework of a new curriculum, which it calls the four pillars of education. These are:

(a) **Learning to know:** by having a broad overview of things and the skills to work in depth on selected fields; learning to learn and thereby benefit from the opportunities to learn throughout life;

(b) **Learning to do:** by acquiring vocational skills and competencies to work in different situations and to work in teams;

(c) **Learning to live together:** and be appreciative of other cultures and people, respecting pluralism, peace and managing conflict; and

(d) **Learning to be:** so as to better develop one's own personality, acting with autonomy, judgement and personal responsibility.

The last in my list of challenges has to be **access to technology** (telephone, television, radio, Internet) by learners. Even as we near the end of the century, some 500 million people may not have made their first telephone call, let alone use the Internet. Most of the non-users are found in Sub-Saharan Africa, South Asia and Latin America. In her book, "*The Death of Distance*", Frances Cairncross¹² quoted an International Telecommunications Union report, which stated that in some African nations (Sierra Leone, Uganda, Zimbabwe), the number of people has been growing faster than the number of telephone lines. While in the short-term this seems to be a big impediment, the longer-term view, by all accounts, appears to be promising.

9. However, what is not promising is the very high level of scepticism that is being encountered among academic circles around the world. There is a certain fear that the use of technology and the promotion of networked learning will lower the value of educational experience, erode quality irreparably, diminish jobs and job opportunities, eliminate academic freedom and inquiry and demean scholarship. This scepticism, coupled with fear, has led in some cases to campus unrest and in others from outright hostility to experimentation, innovation and application. Change has never ever been achieved without discomfort. All those vested with the leadership of our academic communities can attempt to reduce the level of acrimony; encourage open debates and discussions and provide as many training and retraining opportunities as possible to bring about this major cultural change.

Collaboration

10. It is unlikely that in a learner centred, flexible, technology driven system of education where the student can be located anywhere in the globe, institutions can operate on their own and be immune to the pressures and influences upon them from their governments and, more importantly, clients. Partnerships, mergers and consortiums, of one kind or another, may have to be considered for many reasons, but more notably for reasons of:

- **Economy: the development of learning resources, establishment of support centres for learners; infrastructure for the delivery of courses are all up-front high capital costs which can be saved by shared use;**
- **Changing enrolment patterns** are common features of flexible and modular learning; no institution committed to user centred curriculum can fulfil learner demands; cross sharing of courses to meet programme aims and objectives better achieve student demands without causing enormous costs and presenting risks to individual institutions;

- **Funding patterns** which are uncertain and non-sustainable require alliances and strategies that reduce risks; and
- **Curricula demands** that a variety of academic talents for short periods of time are better accomplished by sharing staff resources.

11. All of these actually provide a strong incentive to build partnerships in a number of areas - from the very mundane such as developing new learning materials to the excitement of sharing students, courses and credits. Partnerships, especially with institutions located in those parts of the world where the demand for learning will far exceed the ability to supply, will be particularly helpful as nations begin to accelerate the agenda for greater equality of opportunities. Other than in areas of joint research and perhaps staff development, successful partnerships resulting in long-term mutual benefits for all parties, especially in programmes and courses, have been few. Some examples of existing arrangements that come to mind include:

- **The Western Governors "Virtual" University (WGU):** supported by the Governors of 15 states and one territory, is being set up to expand post-secondary education for the widely dispersed residents of the 16 jurisdictions in the USA. It hopes to register its first students later this year and will deliver competency-based degree level courses *via* the Internet. Through partnership arrangements with both public and private providers of telecommunication and academic services, the university arranges services such as information and course registration, library and bookshop facilities, and provides access to course content, submission of assignments and term papers as well as the taking of examinations. The university does not have a faculty of its own. Those planning or invited to 'teach' at WGU are drawn from the wider community of academe, business, industry and the public service. Even though the university is yet to deliver its first course, it has been the subject of severe criticism from a section of the academic community. Cynics see it as a political gimmick and sceptics do not believe that 'real' learning will take place in such an environment.
- **The African Virtual University (AVU):** is promoted and heavily subsidised by the World Bank. This arrangement is expected to bring state-of-the-art knowledge, available in North America and Western Europe, to a number of campuses across Africa. The funding agencies as well as the institutions that were contracted to design and deliver the courses speak enthusiastically about this venture. Many in Africa question the wisdom of transporting, in real time, undergraduate level science and mathematics courses from the western world to Africa at such enormous costs.
- **The National Technological University (NTU)** acts as a bridge between remote learners and participating institutions (faculty) in post-graduate engineering studies, arranging one-way transmission of lectures (in synchronous and more lately in asynchronous mode) with two or multiple ways of teacher - learner -

learner computer-based communication. It enables the movement of credits and also grants its own awards.

12. These are all agencies which facilitate learning by managing a learning environment (as the NTU does), acting as an electronic bridge of a kind with marginal support to learners (WGU) or funding and co-ordinating the process, development and delivery of learning (AVU). All three agencies, in their different ways, play extremely interesting roles and do, in fact, enable greater access to learning. Their relationship to the institutions which own the curriculum and credits, however, is non-interventionist in the curricula and assessment areas, mostly passive in academic decision making, actively business oriented and, with the exception of the AVU, largely confined to national jurisdictions. Partnerships must be more than this; otherwise, as we have seen in recent years, they simply fall into a business arrangement where those who possess the knowledge products arrange to have distribution and service centres (for a fee) for the products, with little or no transfer of the intellect, skills and technology (the twinning arrangements of many Australian and British universities in Malaysia over the past decade are prime examples of these) which are needed to sustain the venture.

13. In a report ¹³ prepared for the Commonwealth Heads of Governments in 1987, a group of eminent academics from the Commonwealth suggested that an opportunity existed to create a pan-Commonwealth family of institutions delivering education, collaboratively, at a distance. This was based on the unique methods by which these institutions designed their curriculum, developed their courses and learning materials, delivered teaching and supported learning and assessed and awarded credits. The components that could contribute to this network were to include course production, delivery, student support, assessment and accreditation. The need for such a pan-Commonwealth partnership is a lot more urgent today than ever before, if we wish to reduce the gap between those who have all the opportunities for higher learning and those who do not.

14. The 21st century will witness, I am certain, the emergence **of a number of pan-global open learning systems**. They need not be funded by the public purse, but by entrepreneurs who will work in partnerships either with like-minded individuals or with public-funded institutions that will not place impediments against the movement of **students, courses, learning materials, credits and staff**. Like me, many of you in this audience may have knowledge of discussions that are already taking place among the international business community and, perforce, ask yourselves that if these discussions can happen in the private domain, why should they not take place among public institutions? Could it be that private enterprise is more sensitive to partnership arrangements, that the profit motive enables it to make adjustments to parochial interests and management is much more focused on outcomes and less on peripherals?

15. Among a series of studies commissioned by the Commonwealth Secretariat in 1986, prior to the establishment of the Commonwealth of Learning, one prepared by Daniel *et al* ¹⁴ cited an analysis of a consortium that had failed. Lessons from these failures are worth noting as we enter into the next century:

- **Complimentarity:** Partnerships are based on mutual respect, trust and benefit. It is not exploitative of those within the partnership, though clearly, one's purpose in any partnership is to strengthen one's competitive position. Partnerships are not about donors and recipients, they are about alliances supporting and building strengths. Dissonances among members about perceived status and resource capacities are not helpful.
- **Mission clarity and articulation:** There is a need to establish very clearly, the purpose of the mission and to articulate it sensitively. A clear sense of direction is necessary, vaguely cobbled afterthoughts for partnering welcome disaster and frustration.
- **Institutional commitment:** Partnerships involving curriculum, materials, learning assessment and credentialling require unequivocal institutional commitment, support and approval. It is NOT an arrangement between two individuals - it involves entire communities and therefore requires ownership by entire communities.
- **Government and community support:** International partnerships must have government support at both the policy and practical levels when it concerns the delivery of educational products.
- **Organisational support** to support partnership activity needs to be put in place. Education delivered across national jurisdictions relies on faith, trust and the belief that those who are delivering the education will also take the responsibility to support the learning environment just as they would when such transactions take place within campus walls in their immediate environments.
- **Leadership:** Like any such venture, the quality of the partnership is only as good as the time and interest that leaders of partnering institutions bring into the alliance. Venturing into international academic partnerships because it looks good to market presidencies locally do not make good collegiality. Leaders with a vision of global development and a desire to assist in reducing unhealthy disparities among people and nations and who are willing to work towards these goals, are what the international communities need.

16. In the concluding paragraph of their book on *Collaboration in Distance Education* stated that the "distance education institution of the year 2000 is likely to be as much an educational broker as a credit granting institution. It may develop niche areas of academic expertise, which it will guard jealously in its immediate sphere of influence - but which may be amenable to partnerships with institutions that offer no threat to its status or territory". Between 1993 and 1998, the world has already changed much. Today, we cannot limit the view that they had expressed to just distance education institutions; in Western Europe and North America, *almost all tertiary institutions* would fall into the same pond - they are, in one form or another, delivering or planning to deliver knowledge

to students outside of campus walls. While many of them are seeking collaborators, they are still mostly self-centred in the way arrangements are negotiated. Partnerships of the 21st century cannot be about territorial preservation (cyberspace does not recognise this), it will be about student volume and economics, learner choice and autonomies, mobility of jobs and people, explosion of knowledge and technology and interdependency and universalisation.

The debate that this conference will engage in during the next few days will examine these and other issues. I wish you well with your discussions.

Thank you.

Footnotes:

1 Carroll, Jim. (1997). *Surviving the Information Age*. Prentice Hall, Ontario, Canada. p. 210.

² Nigam, Navin C. (1998). Presidential Address at the 72nd Annual meeting of the Association of Indian Universities. *University News*, Vol. 36 (1), January 5, 1998. p. 1-5.

³ Alagh, Yoginder K. (1998). Inaugural Address at the 72nd Annual meeting of the Association of Indian Universities. *University News*, Vol. 36 (1), January 5, 1998. p. 6-9.

4 Blair, Tony. (1996). The Twentieth Anniversary Lecture delivered at Ruskin College.

5 Clinton, William. (1997). Inaugural Address.

⁶ Delors, Jacques (Commission Chair). (1996). *Learning, the treasure within: Report to UNESCO of the International Commission on Education for the Twenty-First Century*. Paris, France : UNESCO.

⁷ The World Bank. (1994). *Higher Education: The Lessons of Experience*. Washington, DC, USA. p. 105.

⁸ United Nations Development Programme. (1995). *Human Development Report*. UN, New York, USA.

⁹ Cairncross, Frances. (1997). *The death of distance: how the communications revolution will change our lives*. Boston, MA : Harvard Business School Press. p. 303.

¹⁰ Hall, James W. (1996). *The educational paradigm shift: Implications for ICDE and the distance learning community*. Report of the Task Force of The International Council for

Distance Education Standing Committee of Presidents. Open Praxis. Vol. 2, 1996. p. 32.

¹¹ Delors, Jacques (Commission Chair). (1996). *Learning, the treasure within: Report to UNESCO of the International Commission on Education for the Twenty-First Century*. Paris, France : UNESCO.

¹² Cairncross, Frances. (1997). *The death of distance: how the communications revolution will change our lives*. Boston, MA : Harvard Business School Press. p. 303.

¹³ Coffey, J., Hubbard, G., Humphries, C., Jenkins, J., and Yates, C. (1987). *Commonwealth Co-operation in Distance Education*, International Extension College/Council for Educational Technology, UK.

¹⁴ Daniel, J.S., Mugridge, I., Smith, W.A.S. and Snowden, B.L. (1986). *Co-operation in Distance Education and Open Learning*, Notes prepared for the Commonwealth Secretariat, London, UK.

¹⁵ Moran, L. and Mugridge, I. (1993). *Collaboration in Distance Education: International Case Studies*, Routledge, London, UK.