



Learning to e-learn

Flourishing and thriving in a flattening world

In a recent very well received book entitled '*The world is flat*', three times Pulitzer award winner Thomas Friedman has identified the recent globalization process, version 3.0 as he calls it, and compared this with the earlier manifestations of globalization namely 2.0 and 1.0. And he has identified ten factors which have led to this globalization process. The result is that while in globalisation 1.0 countries were globalizing (colonizing) and in version 2.0 it was companies that were globalising, in version 3.0 of the globalisation process it is the individuals who are being empowered to collaborate and compete globally. While globalisation 1.0 and 2.0 were driven primarily by European and American individuals and businesses, globalisation 3.0 will be driven by individuals from a more diverse non-Western non-white group, comprising, in fact, every colour of the human rainbow.

The all important question is

that while the book is very complimentary to India and is like a wake up call to the USA and other parts of the developed world, it is an even greater wake up call to us. To warn the USA it points out to the quiet crisis and "dirty little



secrets" of the American education system. These are inadequate numbers, lack of ambition and lack of student interest in studying Science and Maths, which are, in fact, the universal language of technology.

Prof. M. M. Pant

While Thomas Friedman may imagine a design and probably foresight and planning in the recent success in IT in India, it is, in fact, an unplanned phenomenon, completely contrary to what the planners had really thought. The policy makers for industrial development had never factored IT developments in their strategy. IIT Kharagpur was not created to produce world class talent, but to produce engineers which would be able to respond to the needs of the locomotive factory nearby at Chittaranjan. We have stumbled upon this success by a number of factors which are not really germane to the proposition being built here.

Even today the serious deployment of e-learning to provide access to learning and to improve the quality of education being delivered is not acceptable to the State-sponsored education system.

However we need not wait for another set of accidental good

fortune to make our mark, but start acting and preparing ourselves to flourish and thrive in a flattening world. While government may continue to drag its feet, as individuals interested in the future of our children, we should start addressing ourselves to the question of how our children would flourish and thrive in a flat world.

Thomas Friedman describes four categories of people who would be able to do so. The first of these are very special people. He gives examples of people like Michael Jordan, Bill Gates, Barbara Streisand. We could have our own Amitabh Bachchan, Shahrukh Khan, M.F. Hussain, or what have you. The next category is those who are specialists and here we have all the high specialty doctors, technicians, lawyers, management and business consultants, forensic experts. Next come the anchored people. And finally the rapid adapters. And these are a set of attributes, skills and values that we can instill. The markets want early adopters, but to flourish you have to be an adaptor. Maybe the chameleon. And isn't this what Darwin's theory of evolution is all about when stripped down to its essentials.

Thomas Friedman projects that with the rapid advances and convergences in technologies, those with specialized education and the ability to learn how to learn would command high compensation and will be in demand. The ability of learning how to learn enables you to climb up the knowledge ladder faster. High quality 'ideation' would be valued and the concepts provided would be detailed and developed by followers.

So how do we become adaptable in the Knowledge Economy? Descartes had said several centuries ago '*Cogito ergo sum*' and the goal of human existence is to evolve into a '*homo faber*' or thinking animal moving upward in the evolutionary stages from homo erectus to homo sapien and now to homo faber.

John Flavell had coined, almost a quarter of a century ago, the term 'metacognition' to refer to thinking about thinking, and we can now see that in the emerging Knowledge Economy the metadata may often become more important than the data itself. So in essence we have to create a facility for



thinking about thinking or learning to learn.

While it may appear that the ability to learn is an instinctive ability and cannot be systematically inculcated, in reality just as we can and do teach mathematics and music, sometime even making it compulsory, it is important that we train our students in the ability of learning to learn.

Prior to the availability of pervasive and ubiquitous computing, many of the above thoughts were in the realm of philosophy or educational psychology, but could not be translated into actual learning

strategies that could be adopted on a meaningful scale. But now the same convergences in the information communication and wireless technologies that are forcing the need for rapid adaptors also provides the means through the deployment of e-learning to achieve the desired goals.

The possibility of easily deploying e-learning allows us the means of implementing Cognitive Strategy Instruction (CSI) which is an instructional approach that emphasizes the development of thinking skills and processes as a means to enhance learning. The objective of CSI is to enable all students to become more strategic, self-reliant, flexible, and productive in their learning. CSI is based on the assumption that there are identifiable cognitive strategies, previously believed to be utilized by only the best and the brightest students, which can be taught to most if not all students.

My personal take on this is that all students should during their University years undertake a good course on learning to e-learn. We have all been hearing about the importance of life-long learning and learning to learn. And it is now a significant time since Delor's report identified the four pillars of learning: learning to know, learning to do, learning to be and learning to live together. But since then there has been no real implementation of the philosophy enunciated above.

One of the important developments that has happened in the direction of opening access to information for a world-wide audience is the MIT open courseware initiative and the other is the FOSS, the free and open source systems movement. In the same spirit is the wikipedia and the

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wikis have as their mission 'a world in which every single person is given free access to the sum of all human knowledge'. I have therefore designed a short course whose outline I am describing below. This would comprise 15 didactic sessions of about 1 hour each on the following themes, Each of these 'lectures' would have associated with them self-learning, peer learning and further teacher-learner interactivity for another hour or so. Thus both in the face to face system as well as the distance learning system, the measure of this course would be one credit. It could also be delivered as pure online or in a multi-model blended format combining as per student choice of different modes.

The course would be extremely useful for all University level students, whether they are studying at State-sponsored formal Universities, State-sponsored Open Universities or professional Institutes.

To flourish and thrive in the emerging Knowledge Economy, the students would have to get out of what is being done in the classroom and learn more, achieve more, create evidence of their skills and achievements, beyond the marks in the examinations. A whole lot of these would have to be acquired outside the class-room through self-study and maybe special programs that are pursued concurrently with the University studies.

A few years ago, the Chairman of Cisco, John Chambers, had stated that e-learning will be so huge that

the size of e-mail would start looking like a rounding off error. His predictions got lost in the aftermath of the dot-com bust, and was perhaps seen as the wishful thinking of a beneficiary, but when the dust is settled and we get back to our respective businesses, the truth will come back to us.

While to some extent the desire and ability to learn is inborn and instinctive and in terms of Kohler's experiments with apes, given a set of resources, learners would eventually find a way of putting them in a right sequence and pattern to solve a new problem, some training and practice in enhancing critical thinking and higher order information processing skills would make for better harnessing of and dealing with e-learning resources.

It is well known for ages that 'he who knows not and knows that he knows not, he is ignorant, teach him'. He who knows not and knows not that he knows not, he is arrogant, shun him. But 'he, who knows and knows that he knows, he is wise, follow him'.

In the early years of the war, the concept of the Intelligence Quotient was developed largely to support large scale recruitments for the army. More recently the Emotional Quotient has been begun to be appreciated, and sometimes we also talk of the spiritual quotient. We are accordingly developing the concept and measure of an eLQ or the e-learn ability Quotient, which if we were to draw the right inferences from Friedman would be a very important indicator of the potential for success in the flattened world of the Knowledge Economy.



Descriptor of Theme

- ? e-learning as a response to a flattening world
- ? Attributes, skill sets & infra-structure for a successful e-learner
- ? A snap-shot of e-learning needs across the life-span
- ? The constructivist approach to e-learning
- ? Flourishing and thriving in the Knowledge Economy
- ? Interactivity mechanisms in e-learning
- ? Quality concerns in e-learning: e-learning standards
- ? e-learning Communities
- ? e-learning goes Open source
- ? Learning Objects and their repositories
- ? Free e-learning resources :The MIT and other initiatives
- ? Priced e-learning opportunities
- ? The steroids: PDA's, wikis, podcasting, blogging

