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Three Ubiquitous Trends

A recent visit to the USA has been a journey of several interesting discoveries. The purpose for that visit was, of course, to meet with a very diverse group of academics and business leaders at San Francisco, Berkeley, Palo Alto, and Chicago to get their insights on the current and emerging themes relating to product & business process design and innovation, urban development, architecture and design, big data analytics, and delivery of education, and then use these insights in recalibration of and revamp of the curricula and the pedagogy of higher (technical) education in India. The individuals who shared their insights and vision included several deans and other senior academics at UC-Berkeley, Stanford University, and University of Minnesota; two panels of architects and urban planners drawn from two leading architecture and design firms one of which is among the world's top-3 in size and reach; a cutting edge analytics firm focussing on fraud and crime prediction; a world-leading product design firm; Stanford University's acclaimed "D.School" (Institute of Design); a path-breaking on-line education start-up that is already making waves not only in the USA but outside too; and a totally transformational world-leader search-engine firm.

Despite the very obvious diversity of these organizations and the differences in the contexts for each of these meetings, three ubiquitous trends seemed to emerge which are likely to have a far reaching impact on just about every industry and many spheres of human life. Further, for most companies, a new measure of competence and competitive advantage could be their ability to understand and adapt to these trends.

The most interesting of these three trends is the very rapidly increasing impact of technology in re-shaping of industries and vocations. It is well known that technology has been a great enabler of myriad business processes, and is already touching myriad facets of human activity. What is different is the impending transformation of technology from being just a more efficient enabler of current business systems and processes to becoming the driver of changes in many industries and many sectors of human activity. The rapid evolution in technology is likely to shape – in the very near future - the architecture and the cities of the future, the delivery of education at all levels, national security and counter-intelligence, fraud and crime prediction and prevention, delivery of healthcare, product and business process innovation, mass and individual transportation, and at some time in not so distant future, harnessing and delivery of energy, water, and other natural resources.

The second interesting trend is the rapidly increasing confluence of multiple educational disciplines in arriving at more efficient product or service solutions, across most industries. Stanford's D.School students now include those having background in law and management; major architecture and design firms now require services of ethnographers, sociologists and behavioural scientists, experts in energy management, business economists, materials scientists, and simulation whiz kids; urban planning and development efforts now requires more than just urban design and planning experts with expertise now also needed in energy, water, and waste management, transportation engineering, and economics etc.

The third, and perhaps the most counter-intuitive of all, trend is to move towards "in-sourcing" in a remarkable shift from "out-sourcing". Perhaps this is a logical outcome of the two trends mentioned above. In the coming years, it would be even more difficult to describe the notion of "core-competence" in a simple paragraph or two. What, for instance, can be the concise description of core competence of Apple, Google, Amazon, Inditex, IKEA, BMW, P&G, and Nestle to list but just a few? Essentially, the trend towards "in-sourcing" implies having more and more of the major business functions fully controlled and managed in-house rather than outsource them to third parties for short-term financial savings. Indeed, a recent article in The Economist magazine highlighted that in the airlines business, other than the airlines themselves, just about everyone who is a supplier / partner to the airlines has been making money. Such could be the perils of outsourcing taken to an extreme. With the rising need for multiple competencies that include cutting edge customer insights, product innovation and development, lean and efficient manufacturing, and time and cost efficient logistics, all having the foundation of cutting edge technology, it is no surprise that more and more businesses would look again at "in-sourcing" more seriously.

The implications for India's educationalists are obvious – establish multiple globally-benchmarked centres of technological excellence at its leading technical education institutions including the IITs, and bring down the single discipline-oriented silos that currently exist in our educational system with students to be allowed (and encouraged) to acquire a multi-disciplinary exposure and skills-set. The Indian public and private sector should, first, encourage much higher diversity (of academic background) in the ranks of their employees, embark upon a deeper understanding of current and emerging technologies, and focus on reorientation of their business models and businesses based on innovative deployment of technology.

Arvind Singhal
Arvind.singhal@technopak.com