Crossing **Talents !**
Transversality in Design

Innovation as a matter of 'cultural losses' in a globalised world:
the need for a framework for preservation – the case of India

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Abstract

The notion of 'cultural losses' forefronted by Jared Diamond in the late nineties as being representative of ideas and technologies of an exogenous nature that have leeched on account of their failure to grow adequate local roots, bears great scrutiny for societies such as India's that remain at the crossroads of globalization today, and wrought as they have been by a steady marketization of their respective economies across the last two decades.

Popularly termed as the emerging economies (in relation to the mature industrial economies of the West), any understanding of innovation and its invention or adoption in these geographies could call for a special frame of reference – one that is able to factor into the sensibilities of the 'local'. The challenge here would be in recognizing technology's origins as a value-neutral affair but its diffusion or lack of it as a value-laden cultural phenomenon.

This paper proposes a methodology – a design frame of reference - that takes as its starting point the idea of technology as being a universal and which then evolves to take a distinct manner of application in their host milieus, viz., culturally mediated societies.

That large multinational consumer goods companies such as Whirlpool should find it necessary to maintain independent product innovation divisions distinct to certain geographies such as India, China, Mexico and such. And that, companies such as Samsung, Motorola, etc., should spend a fortune in understanding the 'ethnographic' profile of these markets is indicative of their recognition of the idea of 'cultural losses' and their bid to escape the lot.

This paper proposes a methodology/framework of design ideation that attempts to locate spaces that are culturally-mediated and then help identify innovations appropriate to such spaces but shaped from technology(s) originated outside the system.

While at one level, the outsider is challenged into having to view these societies - complex as they are – in a nuanced fashion and atypically. At another level, equally these societies are challenged by the need to have to keep pace with the 'modern' – often a synonym for recent technology(s) – in order to survive.

The ensuing process of the stemming of 'cultural losses' is what translates these technologies into innovations.

(I) Introduction - the narrowing of the contours of innovation and an emerging need for an alternative perspective:

From its broad intent as the " successful application of knowledge or techniques in new ways or for new purposes" (Bellon & Whittington, 1996)**,** innovation today has shrunk to the idea of an opportunity or lever to push the profit line, narrowing down its playing ground to entities that can pulsate as price-bearing commodity in the marketplace.

The excitement of expecting something unexpected or different especially because it adds great value is only secondary to whether this 'value addition' is accompanied by its monetization into profits. The litany of books on the subject will attest to this.

In one of them, 'The Game Changer' (Charan and Lafley, 2008), its authors (one, an erstwhile faculty at Harvard Business School, the other, the head of P&G) talk about being able to create the "right initial conditions, viz., people, purpose, environment." Which means, recognizing that "people are creative by nature (and) it is part of being human". Organizing around such an obviously known condition should have been a given. But, there is something in the outlook for innovation in a big ticket, techno-centric industry that makes this simple matter an extraordinary revelation, and gets specifically earmarked to be taken up as a "challenge".

The authors cite as an example of inspiration the "edgy and bohemian neighborhood" that goes by the name Over-the-Rhine, located in Cincinnati, and its even edgier converted brewery on Clay Street, which "looks like a combination of think tank and playground" – not quite the standard P&G atmospherics, they admit.

Here, at Clay Street, while whiteboards and computers share space with crayons and chalkboards, with "people sitting around telling stories" and providing the perfect grist for out-of-the-box thinking, all this inspiration continues to remain strictly about a unique "approach" for P&G to connect with its customers.

However, Procter and Gamble's (P&G's) repertoire of FMCG's, with their not very significant connect with people's lives and everyday difficulties, can make all this talk about innovation somewhat of an overkill.

The larger point here is as follows: because innovation thus defined by a marketplace paradigm may or may not resonate with the larger good of the larger numbers – a good subtext for social engineering - or even benefit those outside of a P&G-driven FMCG ecosystem, who is to implement innovations that are, for instance, deeply beneficial to:

(a) those on the margins of society's mainstream: (such as farmers faced with drought in Africa or in India may have no use for Napster, no matter how novel or popular this contraption for music may be with the urban youth); or,

(b) those with special needs (such as children afflicted with cerebral palsy, who could benefit from a specialized product that helps them with their otherwise incoherent communications over even routine every day affairs, frustratingly difficult)

The fact is that product efforts to fill these critical needs-gaps are often thwarted with P&G-styled high entry barriers of competition into markets already heavily biased in favor of 'mainstream needs gaps' (consumer products). With the odds stacked up high against solutions that may be little known but are highly innovative and contextual by nature, and profoundly beneficial to the kind of users mentioned earlier. For design, this is a holy grail – design for a purpose; design for all.

This raises the question: ***can there be an alternative perspective that will expand this shrinking space*** to accommodate all the different faces of innovation, knowing the role played by innovation and its intermediation, viz., design, in furthering the quality of life, while at a higher level shaping the face of civilization itself?
And be able to include innovations that may not have the potential to be part of the profitability

ecosystem but are, nonetheless, of great value to society. And, by keeping them underground, one is indirectly threatening to exclude their 'audiences'/potential users in need of these innovations but not in a position to afford new ideas and products at 'commodified' prices.

Further, as innovation continues to gain currency within the industry to become a rallying point around this singular idea of "organizing a business to exploit new opportunities profitably," there remains yet another subtext to this issue of exclusion. And that is the presumably seminal position assigned to **technology** by an overtly innovation-for-profit industry – a slant that completely undermines an earlier premise that used to maintain that: "innovation is for all businesses whether using high technology or not" (Bellon and Whittington, 1996)

It would then appear that most innovations thus defined today,
(i) apart from being located within the market economies, are (ii) specifically designed around the use of technology – to be differentiated from innovations that are approached through but not necessarily defined by their technologies, especially if these were low-grade, highly localized and immersive technologies originating from outside the market economies.

It stands to logic, therefore, that this narrowed down outlook for innovation that centers around technology and the markets can hardly accommodate <u>innovations from far flung cultures</u> that still remain outside the pale of marketization for all kinds of reasons, or <u>innovations for special interest groups</u> not always blessed by the laws of average that favor profit-making target group consumers required for building marketplace innovations.

The search for an alternative perspective, while squarely challenging the notion that those with a technological edge are the ones really innovating, needs imperatively to be premised on the concern that <u>innovations outside technologies and profit-making will thus continue to evade our attention</u>, and could hence beg an emerging need to broaden and redefine the real locus/intent for undertaking innovation as an activity.
The question, therefore, is: **why has innovation, when not 'defined' by technology, moved away from our radar? And how do we bring this back into our line of vision?**

(II) The modern inflection point for innovation - globalization:

Since times immemorial, innovation has originated and functioned in spaces or among various constituencies, whether aided or unaided by market mechanisms.
The reason why the issue has only now come to head and even gained momentum is that, regions defined by different market-paradigms and hitherto separated from each other by physical distances/geography as well as by economic ideologies, have started to overlap through the networking technologies, resulting sometimes in a convergence of shared ideas about economic systems through either adaptations or assimilation of each other's ideologies and interests., or sometimes in complete mergers of disparate economic areas

The new inflection point for this, of course, is globalization, a highly contested idea in itself, as Steger (2003) maintains, and "defined as the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa" (Giddens, 1990)
It is in the 1990's that one had occasioned a shift of the markets (called mature markets) from the West faced with a demand saturation from its consumers, to the new emerging markets endowed with large internal captive demands. Located largely in the East and the South these were held together in a loose geo-political collective now termed the BRICS nations: Brasil, Russia, India, China and South Africa, but also including Indonesia, Sri Lanka and some relatively smaller countries.

This overlap between the market-types had obviously seen the primary agents of the mature markets, viz., the MNC's (multinational corporations) and their smaller versions of industrial outfits initially 'ship' out their established innovations from their parent locales to the adopted ones. And then, being witness to many of these transported innovations failing to take

local roots, had since begun to invest in setting up 'innovation centers' in their host countries to build localized solutions rather than ship in pre-made innovations, often devoid of contexts.. Examples of companies that have set up shop in India with local innovation intent are Yahoo, IBM, HP, Google, MicroSoft Research (MSR) and Whirlpool among others.

It soon became evident that the emerging/new markets were clearly defined by rules beyond those of profitability, consumerism or the ease of spending with plastic money. The net result: recognizing the need for new rules of engagement.

So, what does this setting up of 'localized' branches of innovation augur for the times ahead? Is it enough to be franchises of one's offshore parent companies? Or, is there a transformative vision required to make these localized 'innovation centers' work? Making the need for building organizations from scratch that are able to capture the local spirit of innovation very critical. *And, could this require new rules of engagement with the adopted countries? If so, then* **what should that emerging frame of reference for innovation be?**

Before undertaking these questions, it is important to acknowledge recognition by votaries of globalization, of the range and diversity of the character of innovation itself.
Tom Peters (20..) from Harvard Business School and Tom Kelley (2007) from IDEO allude to innovation's variegated nature, respectively, as the 'circle of innovation' and the 'ten hats of innovation'.

More pertinent to the subject of this paper is the manner in which Geoffrey Moore (2005) has identified the unfolding of innovation types according to their theatres of play. Accordingly, there can be different kinds of innovations depending on whether they are located in (i) growth markets, (ii) mature markets, or (iii) the declining markets.
Moore's classification of innovations according to markets is important because it suggests that markets do not exist in a vacuum. Apart from their more obvious association with their respective economy-types (indicating stages of economic progress: developed, developing, underdeveloped, etc.,), markets are concomitant with a larger set of dynamics - often overlooked - viz., that they are located within certain types of societies. And societies essentially encrypt the way people behave and evolve.

It could be a reminder that innovation is perhaps less labored and more easily achieved when it is not divorced from one's way of life, and when innovation becomes a part of one's cultural matrix.

This interplay between economy and society, and implicit within it the role of cultural mindsets in understanding business – a factor for long ignored by businesses - came to a head early on in this decade. The realization (pointed earlier) that markets, up until, now had pretty much worked as independent entities and remained contained within their respective geographies and were now increasingly getting interconnected through globalization brought in new ways of thinking.

One of them was Thomas Friedman's 'The World is Flat' (2006) and its advocacy of a flattened world through the idea that information technology as a driver could leverage complementarities of interests (such as, shortage of skilled labor in an industrialized environment being compensated with availability of the same in less industrialized-developing economies without having to move too much around physically – a mechanism of exchange called arbitraging).

While arbitrage of labor, commodities and currencies facilitated a seamless flow of business factors across the national boundaries, it also had the effect of flattening out cultures through a convergence of business interests across economies and geographies and an unfortunate *mainstreaming of cultures* termed by American sociologist George Ritzer (1993) as, the MacDonaldization of the world – "the imposition of uniform standards that eclipse human creativity and dehumanize social relations". And naturally decried among others by Robert Redford, that intrepid activist speaking out on behalf of those on the margins - including for the vanishing forests and whales in California – to be "just ever more costly, more formulaic, more

cluttered with special effects." (Peters, 1997/ The Circle of Innovation)
As part of the world of the motion pictures, Redford's reference to special effects cannot be lost on the reader.

It is significant that by at least one account, "globalization would refer to a multidimensional set of social processes that create, multiply, stretch, and intensify worldwide social interdependencies and exchanges while at the same time fostering in people a growing awareness of deepening connections between the local and the distant."(Steger, 2003).

So, whichever way one chose to see this, implicit in intense mainstreaming had always remained the suggestion of the interplay between markets and their respective societies, with one of the most important fallouts of this interplay being the accrual of *'cultural losses'* and bringing us back to our search for an alternative perspective with our original question: why have innovations from outside of the markets gone off our radar?

(III) Differential perspectives on innovation driven by differing 'worldviews' as a function of the evolutionary contexts of societies - a historical narrative:

To get answers, we may need to look at innovation retrospectively against the backdrop of society's evolutionary context.

A good starting point would be the recent dawning upon the West in its forays into the emerging markets, that, while broadly speaking their approaches to innovations, as indeed to many other aspects of their lives, is mediated through technology. By contrast, the activities and outlook of their host countries seemed deeply mediated by cultural factors.

Does this mean that the mature markets remained the sole locations of technology while the host countries (the emerging markets) became the sole repositories of culture? While, on the face of it, each of these locations may seem to have been the arbiters of one or the other, viz., of technology or of culture respectively. The truth lies in the way societies had evolved since their earliest times. And through it, had wrought the crystallization of their respective *worldviews* – literally the way in which each society chose to view the world around it. How did societies come up with distinct worldviews?

As it happens, all societies, without exception, have evolved through an interplay of a set of factors termed as modes of production – where resources (made up of both natural and human capital) interacting with technology helped society function. In the process, each society carved out its specific relations between its resources, technology and production modes in a complex amalgam that is termed production relations. It meant that, <u>societies by virtue of social organizations evolved culture, and by virtue of their enabling tools of trade, evolved technology.</u>

Along the way, while some societies forged ahead by viewing their growth through the prism of technology, particularly the Western societies in the 18th century onwards, shaped by their Age of Enlightenment, the progress of the sciences, and the arrival of the Industrial Revolution. Others moved ahead by viewing progress as being a function of the preservation of the complex nature of social organization and man's relations with nature.

The original universal nature of technology and culture thus got mediated through the historical behaviors of societies, whereby

(i) in one, Man became central to a society's identity and Nature made subservient to Man. With a deep belief in technology's capability to subdue and control Nature, most activities became technologically determined. In time, mechanical properties as an outcome of technology became preponderant to the articulation of society's needs - with machines representing speed, built structures representing size, print and transportation advancements representing mobility. And overall, the conquest of lands and people through this force of technology seminal to its

identity, helped bring in further resources and commodities from far flung places to aid their already stocked up materials mechanically manufactured internally. This sense of making with machines as well as transporting more and different ones from distant locations became part of its culture's manifestations;

(ii) in other societies, where Nature remained at the center of its identity, society mediated its existence by deferring itself to what was reasonably within the limits of Man's own capabilities, with some help from technology but without any attempt to let technology become an overriding factor.

Man carved out an identity by viewing progress as a function of the factors of social organization such as language and culture, with everything else - tools of technology included - becoming secondary to this larger human purpose of existence. Thus defined by cultural factors that included interactions with everything around him/her, including or especially Nature, the tools of articulation showed up as being human-driven manifestations – the arts, the crafts, the vernacularly built spaces - all with local resources, animal and water-driven modes of transportations, local sources of energy, with a considerable imprint of Nature on man, or at least man working with Nature, and building the mechanisms required to mitigate as smoothly as possible, Nature's calamities from time to time – all in all, an attitude that remained deeply underscored by a sense of acceptance of the violent cycles of Nature.

Consequently, the human protocols thus developed have had to be complex enough to decipher and intuit the workings of Nature, thus enabling society to help preserve the many cultural and physical facets of its life, as reflected in its visual, oral and performance cultures such as in the arts, the crafts, its communications, the mythologies and its storytelling, respectively.

The end result across a human civilization spanning 11,000 years has seen the evolution of broadly two types of societies adhering to two distinct worldviews:

(1) the culturally-mediated societies/Society-type I (S1C), and
(2) the technologically-mediated societies/Society-type (S2T)

While historians from India in a line of Marxist tradition (Thapar, Kosambi and others), or those based abroad with a development outlook (Bhikhu Parikh, Amartya Sen and others) have attempted to portray the nature of such societies as being humanistic but not just human-centric, S1C type societies are often misunderstood as being regressive and living in the past. The fact remains, however, that India, for instance, continues to be home to some of the earliest living indigenous cultures of the world in coexistence with its IT and other industrial landscapes of today. And which should speak volumes of the complexity of the nature of such parallel existences, and the mindsets required to deal with these parallel worlds of realities.

In such a situation, it becomes important for cultural historians to recognize that globalization, whether we like it or not, is today "at the heart of our runaway world, (and) it means that in many respects we now share a common fate" (Giddens in Nandy ed., 2010)

Equally, it becomes incumbent upon hyperglobalizers - those who advocate a world to be undifferentiated in cultural terms and for whom 'cultural losses' as an idea remains immaterial or redundant - to attempt counting the 'cultural losses' that accrue to society when technology seeks to sublimate man-made efforts, and production modes have developed under different worldviews, and innovation transplanted from the outside without heed to a society's particular worldview can only fail to take local roots.

To understand how differential attitudes to technology has a direct bearing on the way we innovate, we will now address this through a real world situation: the idea of seeds as a potent and universal symbol of the continuity of civilizations terms of of two new sets of emerging but connected realities:
(i) the asymmetries set in by a techno-centric worldview; and
(ii) the 'cultural losses' accrued to society when ideas and technologies have been of an exogenous nature that have leeched on account of their failure to grow local roots.

(IV) The new realities for innovation (1) - culture's ascendancy while addressing the asymmetries of a techno-centric world:

The need to find a different way to re-organize the idea of innovation arises from our desire to address this asymmetry, located in two sets of biases:

(i) firstly, in a technocentric worldview that makes innovation and technology synonymous, leaving little room for an objective understanding of what technology realistically can achieve for innovation, and equally, what it can do to destruct cultural mores and "traditional meanings" (Manfred Stegar, 2003) in its wake, without leaving behind any documented trail of this destruction, blighted as they get, by the passage of time; and

(ii) secondly, the mistaken notion that those who are technologically blessed do not need culture, and by that derivation, culture isn't that crucial to innovation.

The altered perspective under which we seek to understand innovation here will demonstrate that every society – 'advanced' or not - possesses technology, but not all technology translates into innovations, nor is that a necessary precondition for the flowering of an innovation mindset.

Equally, every society by virtue of having social organization will demonstrate some form of culture or the other, and foster culturally contextual ways to innovate.

In cultures that are driven by faith, inspirations for innovation are a highly nuanced affair, with metaphors and symbolic expressions representing even consumer spaces. The conversion of a cell phone into a torchlight (as a source of light in a rural space without electricity) and the user's obvious delight at being able to find this simple at-hand solution speaks volumes of a culture (in rural India) where material deprivation isn't the end of the road.
Cultural spaces and communitarian living often go to annotate these material absences.

The cellphone company that had envisaged this idea was Nokia. Considered modest in price, culturally-mediated in its approach to a solution of a lack of a light source while trucking across long distances, and a robust option of a cell phone especially for rural areas, Nokia's physical presence in India drove its understanding of the local culture. The icing on the cake was of course the cultural cues that emerged through its local (India)-global (Swedish-Continental) partnership.

Amazingly, the solution had come from a context (lack of electrification) that is unimaginable for its host country, Sweden.

In other words, the reason to understand technology and culture's place in society is crucial to realizing their relationships with innovation itself and accordingly frame the questions for pursuing the idea of 'cultural loss' in the notion of 'cultural loss' and ways to plug this

(V) The new realities for innovation (2) - an alternate perspective containing both technology and culture to plug 'cultural loss'– an emerging anatomy of innovation:

In this altered perspective, we ask a few leading questions and mark some observations that will help outline some key requirements for innovation:

(i) to begin with, isn't innovation **an act germane to one's everyday life** itself – the "unconscious daily round?" (as eminent material historian Fernand Braudel (1979*)* characterizes

innovation as). And obviously not necessarily originating from the specialist worlds of business, science or technology. Alexander Graham Bell or Steve Jobs are not the average innovator.

(ii) isn't technology a tool for achieving an end result? Although quite at odds with the way technology is today perceived as, and not necessarily for the best reasons, it is inspiring to remember Marcel Mausse's (Braudel, 1986) view of technology, complete in its abstraction:
"What I call technology **is a traditional action made effective.**"
Braudel himself says in his classical work on Civilization and Capitalism:
"In a way, everything is technology: not only man's most strenuous endeavors but also his patient and monotonous efforts to make a mark on the external world; not only the rapid changes we are a little too ready to label revolutions (gunpowder, long-distance navigation, the printing press, windmills and watermills, the first machines) but also the slow improvements in processes and tools, and those innumerable actions which may have no immediate innovating significance but which are the fruit of accumulated knowledge: the sailor rigging his boat, the miner digging a gallery, the peasant behind the plough or the smith at the anvil."

(iii) in spite of the generic nature of its association with the human's existence, doesn't innovation tend to take on **distinct forms of its own across different geographies and cultures** rather than unfold uniformly without variations? For instance, in China…….. "[the most common] tools have something peculiar in their construction, some difference, often indeed slight, but always clearly indicating that, whether better or worse fitted for their purpose than those used in other countries, the one did not serve as a model for the other. Thus, for example, the upper surface of the anvil, elsewhere flat and somewhat inclined, is among the Chinese swelled into a convex form." Sir George Staunton in Braudel, (1986) An authentic account of an Embassy….to the Emperor of China, 1797, Vol II, from Braudel (1979)

(iv) to understand these distinct forms, isn't there a need to go back to the **origins of human history and societal development**, recognizing these to be essential milestones of the human's interactions with available resources and modes of production – notably in the form of its natural resources, technology and its cultural framework? And given the ongoing crisis of the natural environment, isn't there a need to add **an ecological perspective** to the already domineering perspectives of economies and societies?

(v) all things being equal, isn't it possible to conceive at this stage of development, **the idea of a worldview** making an entry, and which, by intersecting with society's evolution trajectory gives to society its distinctive brand of culture, and through it, its innovations? Braudel observes: "if civilization is the ancient settlement of a certain section of mankind in a certain place…with humanity divided between different planets, each the home of an individual civilization or culture, with its own distinctive features and age-old choices……" Even if they were to meet with each other, they would still retain the distinctive nature of their solutions.
That, supposedly, is the power of how a worldview can shape a culture. Given this, it is unlikely that cultural diversity will give way to complete homogenization. And recognizing this could have implications for innovation by those located outside of the boundaries of these cultures.

(vi) depending on its particular outlook of viewing its world through the prisms of either 'technology' (as in the West today) or 'culture' (as in many other parts of the world, such as in India, the Middle East, Africa of South America)? Wouldn't these **societies emerge with a distinctive identity of their own**, and for sake of convenience, nomenclatured as one of two societal-types: a culturally-mediated society (S1C) or a technologically-mediated society (S2T)?

(vii) thus making it compelling for us to not only recognize this inter-societal distinctiveness but also pursue **innovation not as a value-neutral, universal proposition**, but as part of one's customs and habits and rituals? And, lastly

(viii) since every society is endowed with culture, would it not be rather inviting to put to test the application or efficacy of this culture-proposition by way of investigating if there were any

noticeable 'cultural loss' accrued to society? 'Cultural loss' being representative of ideas and technologies of an exogenous nature that have leeched on account of their failure to grow adequate local roots – and a concept fore-fronted by Jared Diamond in the late nineties in his seminal work on cultures' progress through technology across human history (Diamond, 1999)

(VI) In conclusion:

To recapitulate the above, the need to address the bias for technology in the context of innovation comes from its tendency to narrow down innovation's wider field of accomplishments as well as its problems, by completely obfuscating the idea (as briefly mentioned above) that innovation (as indeed design) as an activity, has a wider locus, and remains germane to the very manner in creativity to overcome constraints in order to make their lives more liveable as also more aesthetic and enjoyable. This generic nature of innovation is testimony to its earliest roots, going back to the first known tool that the human carved out of stone a hundred thousand years ago by simply splintering a stone to leverage its sharp curved edges in order to chisel other things into shape. It may not be an over statement, therefore, that innovation (and design) has remained our constant companions since the dawn of history.

References

Sen, Ajanta: Sustainability as a Cultural Construct in the context of India - the symbolisms of the 'sacred grove' as a basis for best practices, Saint Etienne Cumulus Conference, 2008

Sen, Ajanta, and Poovaiah, Ravi: "New technology's New Home -- Internet within India's cultural paradigm" - Keynote paper as part of the theme Design, Knowledge and Technologies - presented at Fiera De Santana, Bahia, Brazil, as part of the 2nd International Congress of Graphic Engineering in Arts and in Design, and the 13th national Symposium on Descriptive Geometry and Technical Design, 14-18 Sept, 1998

Bellon, Bertrand, and Whittington, Graham: Competing through Innovation, Oak Tree Press, Dublin, 1996

Braudel, Fernand: The Structures of Everyday Life, Phoenix Press, London, 1986

Diamond, Jared: Guns, Germs, and Steel: The Fates of Human Societies. W.W. Norton & Co., 1997

Dundes, Allen: Sacred Narrative, University of California Press, Berkeley, 1984

Freguson, Niall:Civilization – The west and the rest, allen Lane, London, 2011

Giddens, Anthony:The Consequences of Modernity, Cambridge, 1990

Hawken, Paul: The Ecology of Commerce, Harper Business, New York, 2010

Kosambi, Damodar Dharmanand: An Introduction to the Study of Indian History, popular Prakashan, Mumbai, 2008

Lafley, A.G., and Charan, Ram: The Game Changer – How every leader can drive everyday innovation, Penguin Books, New Delhi, 2008

Moore, Geoffrey A.: Dealing with Darwin - How great companies innovate at every phase of their evolution, Penguin Books, NY, 2008

Nandy, Ashis ed.: RE-imagining India and other essays, Orient Blackswan, Hyderabad, 2010

Peters, Tom: The Circle of Innovation, Alfred A. Knopf, New York, 1997

Ritzer, George:The MacDonaldization of Society, Pine Forge Press, 1993)

Saberwal, Vasant, and Rangarajan, Mahesh: Battles over Nature – Science and Politics of Conservation, Permanent Black, Delhi, 2009

Steger, Manfred, B.: Globalisation – avery shortIntroduction, Oxford, New York, 2003

Thapar, Romila: The Penguin History of Modern India, Penguin, New Delhi, 2002