New technology's new home - Internet within India's cultural paradigm

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Introduction

This paper examines issues that are concerned with those areas of communications design that rely on the use of the technologies, specifically the net-related technologies. We shall examine, very briefly, the historical perspective that informs our present understanding of design-aesthetics, and the way this could lend itself to India's modern design practice as related to the Net. And then, within the frame of reference of a developing country such as India, we would like to ascertain the ways in which the Net could be made to work in the context of the country's cultural and social constructs.

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A workable paradigm of the Internet for the South

It is a well known fact today that with the birth of the new electronic media has arrived the promise of a radical transformation in our ways of communication, signposted by the "the most consolidated use of the Internet via the WWW and beyond." While this remains arguably one of the centuries' most exciting developments in the field of communications, there are a few details that beg for our attention. When Marco Susani of the Domus Academy (Susani, 1997) maintains that "the computer in every home, or at least in many of the homes in industrialised countries constitutes in effect a major transformation," that is a scenario that could remain many years away from within grasp of our own reality. The infrastructure that would be required to reach the Internet to the common man in India after retaining at least some of the technology's freshness, is a proposition that is simply not practicable in the way the West is in a position to achieve in the next few years. So, are we once again to go back to the paradigm of working with hand-me-downs, or is it possible to envisage a new paradigm for the way new technologies and the new media can be made to work in the interests of the developing nations as well?

It would be fair to assume that all the logic of Internet communication is liable to collapse under the inescapable weight of such North-South realities unless we begin to attribute to the use of this technology, a cultural paradigm. That is where designers rather than software technologists can be expected to make a difference. Because at the basis of such action lie

questions that designers more than technologists confront themselves with in their line of work. These would be as follows:

(1)What are the keystones/ key attributes of the culture in which designers reside and work? Which is not to say that designers are expected to confine themselves within the bounds of any specific culture. It is just that they would know the roots of their own. Especially since design does not claim itself to be a value-neutral discipline as science or technology does.

(Attributes: languages/dialects, performing arts, representational arts, oral and written traditions, crafts and so on).

(2) What are the coordinates with which one can navigate oneself through the maze of one's cultural landscape?

(Coordinates: historical progression - key historical signposts).

(3) What are the denominators that serve to act as the key to a culture's functioning? (Denominators: sacred places not as a concept of religion but as a concept of the sacrosanct - time-tested, reliable and revered; extent of separation of work from recreation, the knowledge-systems/basis for crafts and skills revolving around farm practices, urban-related practices etc., the aesthetics of objects and iconography).

(4) And most importantly, arising out of these, therefore, the principal question: can we superimpose the new communications system as substructures on to the deep structures that go to uphold the culture's composite?

One school of thought amongst designers in India believes that "global products are as much a result of technology push as they are the result of economies of scale of production." (Athavankar, '94). The problem with such culture-free products is that these could be the very epitome of the cultural notions of the advanced nations, since that is where they originate. And hence need careful monitoring during their entry into traditional societies. In the absence of any restrain, we could be putting at stake the very mental notions that exist within our culture about objects, jeopardising in the process, any local initiative to evolve our own designs according to our own felt-needs. This is a mirror image of what could happen if the Internet's applications in their present mode were to be accepted by countries such as ours without reservation.

Basically, it is a case of developing countries being faced with technology situations, both real and potential, that are not always in tune with their own realities. Our attempt here will be to place technology in the context of the culture's *'Weltunschauung'* (world view) rather than the other way round. In the reverse, there is the danger of placing an entire culture's world view in the context of the emerging technology and then trying to mould its world view itself to accommodate the technology - an angle of approach that could get potentially subversive.

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The design-development relationship:

Attempting to integrate a technology-heavy factor such as the Internet into culture-related factors may, at the outset, seem like a proposition riddled with contradictions. But at the heart of such a proposition lies the premise that "an effective design paradigm is one that emerges from or closely follows in the path of a country's development paradigm." (Sen Poovaiah, 1998).The two are considered inseparable because design mirrors attitudes, culture specificities and aesthetic traditions that are, in turn, determined by its people's socio-economic imperatives. And since the Internet is being projected as a communications device for the everyday man, it begins to carry implications of development for the country that are direct and immediate, rather than as a piece of technology to be operated out of the laboratories and hence with only indirect references to the country's development. This is how the relationship between design, development and the Internet becomes obvious and could, thereafter, begin to call for a dovetailing with our cultural paradigm. Especially given the context of having to make the Internet relevant for countries such as India that are not yet post-industrial societies in the sociological sense of the term.
In short, our intention will be able to draw an image of the configuration of the relative positions of our cultural attributes such as the people's language(s), the iconography, the traditional knowledge-systems that inform modern practices including industrial-related activities and such, vis-a-vis design's interventions. And then place the application of the Internet across such a matrix, rather than develop the Internet regardless of our reality contexts, as if it were an 'intruder' from outside.

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India's cultural paradigm retraced:

It is within this frame of reference that we wish to place in perspective the historical roots of much of our design-aesthetic understanding, as well as some of its translation into today's design practice. While it is lamentable that the Indian subcontinent has suffered foreign intrusions over the centuries, what we should wish to emphasise here are the varied influences that such incursions have brought about in their wake, as well as all the concomitant attitudinal changes within our people. Removing such incursions from their political contexts, though admittedly limiting, can nonetheless enable one to see if the aesthetic-formalistic influences of the outside cultures have left any abiding imprint on the everyday lifestyles of the invaded people. Right from the well-known earliest examples of the extremely sophisticated urban civilisation of the Indus Valley (in

the 23rd century BC) moving progressively at the turn of AD into the empires of the Kushans, the Mauryas, the Guptas, the Lodhis, the Moghuls among several others, and then the British just until half a century ago, we have all these windows into the outside world against which to examine the durability of our own culture. It would seem as if the country were never allowed to be left by itself. But the net result, contentious as it might be, has been one of 'synthesis' of inputs that draw their sensibilities from the world views attributable to the Buddhist, the Islam, the Christian, as well as the influence of reformist streams of movements such as that of Sufis or the Sikhs. In some sense, Indian history serves to provide a panoramic backdrop for a series of evolutions in history and art which would come to determine our present cultural attitudes, in terms of both our strengths and weaknesses. Over the centuries across history, these streams have come together and merged in order to sustain a continuous civilisation process. With the language of Urdu as a good exemplar of such synthesis - where Urdu was born out of Arabic and Farsi brought in by inhabitants of the Middle-Eastern countries, to merge with the Devanagari of India. Today, Urdu exists as an independent entity as the official language of Pakistan which was born after the partitioning of India in 1947. Or the example of a dialect called Konkani that contains liberal splatterings of the Portuguese language, after a part of India's west coast got colonised by the Portuguese around the seventeenth century. Today, Konkani remains a vibrant dialect along these parts of India's west coast. Such amalgamations have facilitated in absorbing, assimilating and integrating into our land and its people diverse viewpoints, traditions, thoughts, religious backgrounds and languages. The marks of the lineaments left behind by such a diverse, chequered history on the lives, skills and traditions of its people remain visible, to quite some extent, even today. For the purpose of examining the present proposition, we will consider this historical mapping as a point of take-off for examining whether such a contextual background cannot, in fact, provide the necessary inspiration and the opportunities needed to pursue design-related creative activity, especially under the recent circumstances of the advent of the new media.

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Internet applications within a cultural paradigm - a few examples:

Some of the constructs that hold promise for the Net's potentials to dovetail with our cultural paradigm are the culture's diversity and accessibility-factors, the culture's attitude towards sharing of resources and the question of who gets to control the Internet in future (in terms of the Internet evolving ultimately as a people-driven vis a vis a technology-driven tool).

Diversity: It is an interesting coincidence that both the canvases of applications before us, viz., our cultural landscape as well as the new media lend themselves to *diversity*. The Net, for instance, has the capacity to support within its virtual context, a diversity of view points. Not to mention its manifold capacity for documenting and for accessing information, a combination that could very well be capitalised to preserve and enhance the wealth of existing cultural traditions rather than diminish these. The Net is also the very personification of accessibility, in the sense that its entire *raison de etre* arises from wanting to reach out. Theoretically, therefore, it could be just a matter of having to map the potential similarities or affinities, at the structural level, between the respective diversity and accessibility patterns of the two canvases under study, viz., (a)our cultural landscape and (b)the Internet. And then attempt to overlap these affinities one over the other. So that the Internet applications for a developing country such as India would cease to be viewed as an external stimuli but something that we have always had with us, albeit in a different form. The intention as always is to make this new technology appear less intimidating than it actually is. And this by demystifying such tools by linking them up with what is 'familiar' with its potential users. Only then perhaps we could hope to have succeeded in making the Internet more psychologically accessible to its potential users/audiences. Rather than make it look as if it were an alien tool without which one could be paralysed. It is somewhat akin to the effect that English language has had and continues to have on non-English speaking people.

One of the most interesting areas of diversity in our culture that could find immediate dovetailing with the idiom of the Internet is in the area of the languages, especially given the present state of the net technology. The written word in India, expressed through at least 14 official languages and over a thousand dialects, displays an overwhelming tradition towards the phonetic. According to one of India's foremost calligrapher and typeface designer R.K. Joshi (IGNCA, '88), since we live in perhaps the only culture where the phonetic tradition has continued unbroken through many centuries, "it would seem fitting to consider the parallel value of the spoken word to writing." Especially since

writing, anyway, is a graphic counterpart to speech. Now, it just so happens that the computer is particularly adept at replaying phonetic speech patterns which could, therefore, be employed as a basis for translating or transliterating all the different languages in India that have shared structures of phonetics. Such a prospect holds tremendous implications - political, cultural, economic - for a multilingual society such as ours. Part of the reason for a linguistic division of the country into different states, post-Independence from the British in 1947, was to be able to preserve existing cultural categories. This in the further hope that such boundaries once recognised would make it easier for its people to retain the original backgrounds of their cultures as well as help preserve all the diverse strains, the beliefs, the languages and the different faiths embedded within them. However, there have been enormous practical problems arising out of such a multilingual fabric with its lines drawn around languages, administration being just one of them. Also, in the context of the fact that a substantial part of our population is still not letter-friendly, we reckon that the Net's ability for retrieval and exchange of information by its use of auditory modes could be of great advantage under these circumstances.

So, if the Internet could pave its way towards auditory-based interactions, as well as position itself as a device that could serve as a bridge across the different languages and enhancing, in the process, inter-language communication levels, then that by itself could begin to pave the way for countering the presently steep costs of net infrastructure. Suddenly it would seem that installing the net would add more in terms of benefits than costs.

Sharing of resources as a function of a cultural attitude: As we move on to our second construct for understanding the Internet's applications within a country's cultural paradigm, it becomes obvious that cultural attitudes need to be considered. One overarching cultural attitude that could go a long way in helping us comprehend the constructs for the Internet's applications in India in a meaningful way is the concept of the 'sacred'. As already mentioned, this is a complex concept which is not merely religious in its essence. It is a recognition of the primordial, and symbolises everything that is reliable, time-tested and revered. The sacred as a concept has already been brought into reference by the country's architects, for instance, by allowing them a closer vision of the essential basis or element of the culture encoded in the question: 'what is it that makes it tick?' Without comprehension of this factor, any design or design-related technology undertaking would remain incomplete. At various points in time, creative minds such as Le Corbusier's, Picasso's, Matisse's or Stravinsky's are known to have intuitively searched out the primitive as well.

Deeply reverent of this ethos, India's eminent architect Charles Correa maintains that "sacred gestures are a crucial and integral

part of the spaces Indians inhabit. Neither public nor private, the sacred realm qualifies both immeasurably, by engaging the mythic dimensions inherent in the non manifest." (Correa '91). What we would like to understand here is how some of our modern, post-industrial revolution objects such as the television or the bicycle have taken on the hues of the sacred? And can the Internet step into these shoes?

This idiom of the sacred as a catalyst for the Internet's success need not be a universal concept. It is basically meant to work in the context of countries that have precedents of objects and iconography that have got almost no connection with the evolution of the machine. Hence, even a doggedly industrial product from the west could end up being sacred in the East. As Correa explains wittily how these differences of situations can coexist: "To the Japanese, Mount Fuji is sacred; to the Swiss, Mont Blanc is just a very high mountain." However, in all fairness it must be said here that there are some excellent, though occasional, instances of this approach in the works of thinkers from the West. Jacques Yves Cousteau's book 'The Silent World' published in 1953 had laid the ground for the following thought - "people protect what they love" and so succinctly expressed by his only surviving son Jean-Michael Cousteau. As the lone voice of the silent world of the oceans, Cousteau's was yet another vision of the sacred. Then there is Rudolph Arnheim who felt that expression as a generative tool for product form could well be a legitimate proposition since it was by no means limited to living organisms said to possess consciousness. For him, "a steep rock, a willow tree, the colours of sunset, the cracks in a wall, a tumbling leaf……or indeed a mere line or colour or the dance of an abstract shape on the movie screen had as much expression as the human body."(Arnheim, '71). By the same token, a leading exponent of Indian classical music Fahimuddin Dagar, whose family has upheld the form and tradition of the music for an uninterrupted nineteen generations, feels that 'swara' (voice) is God.

Here, we wish to take the example of paper to understand the way the concept of the sacred could apply itself in its functioning of objects and their designing in India. Paper in India is considered sacrosanct because of its perceived association with its role in imparting knowledge - books, manuscripts and so on. In that sense paper is meant to be treated well. One of the gestures through which this finds everyday expression is that one tries not to trample on paper because one does not use one's feet on anything that is sacred. That would be a sign of disrespect. Just as in the rice-eating regions of the East and the South in India one does not use a broom to sweep away the rice that has accidentally scattered on the floor. One uses a cloth instead, because otherwise that would mean disrespect for something so precious as rice that helps to stave hunger away. For the designer, the signs of such gestures could be all around, even in a

crowded metropolis like Bombay which is sometimes likened to New York in its functioning. Every now and then one comes across a *rangoli* which is a pattern of coloured powder adorning the entrances to homes, a *yantra* which is a geometric depiction of the cosmic order painted on the wall; there are huge paintings of saints and the gods on walls lining public property acting as a cultural deterrent to acts of public nuisance, and so on. But at a deeper level yet of the culture's psyche, we find these gestures existing almost as axioms in the form of a 'sacred geometry' such as the *mandala;*, or a 'sacred geography' such as in the way mountains and rivers or the sky and the earth go to form a part of a divine paradigm, viz., as elements of nature that defy ordinary understanding and must be treated as such, with care and with reverence. This philosophy and a lifestyle based on reverence for nature and other life forms have continued to find expressions through symbols that usually take on the names of gods. In other words, nothing moves people as these sacred themes. And something that is clearly observable even to the outsider, as an ecologist from the West recently visiting India would remark "why should you have a problem with preserving your mountains? You worship them, whereas the early settlers from Europe in the USA were actually afraid to go to the mountains."

By the same argument, we might say that what seems like radical chic in the West today in its effort to promote eco-consciousness and recycling, is something that has been practised in our culture as a continuing thread as a fact of everyday living. Here is a philosophy that is based subliminally on this same emerging theme in the West, and converging on the same intentions as ours that nature must be regarded respectfully and not treated wastefully; that one must try and remain close to nature and not go synthetic.

So, as part of this continuing idiom of thinking, the following questions arise: is there a chance that the Internet could appear in course of time as an extension of the paper, and hence needed to be assimilated into one's culture and treated well? Could we approach the positioning of the Internet in such a way that such a vision becomes a part of the people's mindset? Could it eventually become part the array of sacred themes to guide one's way through daily living?

Accessibility: Our next set of examples that will exemplify the potentials of the net to merge with our cultural idiom arises from the factor of *accessibility.* In this there are two aspects: (1) accessibility as a function of the available infrastructure; and, (2) accessibility with respect to what the technology can deliver in terms of its functionality in the context of its given milieu of use. (1)The extremely contentious factor of infrastructure-availability finds an earlier echo in the way we had resolved our effort to reach the telephone to the common man in India. We expect that this trajectory of the telephone's outreach into everyman's land can work as a model for the outreach of the Internet as well. It

may be added here that already there are signs of the Internet following this course of action.

Until less than a decade ago, the telephone had all but reached India's rural areas. In fact, even in the cities the telephone availability per capita was so inadequate as to almost make it an item of luxury affordable by the few. The interminable wait-list combined with the unaffordable costs of obtaining a telephone on demand had finally galvanised some local brand of enterprise into action about ten years ago. India's rural and urban areas have since come to be dotted with STD and ISD booths on a scale so ubiquitous as to make these appear as a veritable icon of communicability itself. Two major fall outs of this development are well worth noting here: (a) this is an example of people's initiatives attempting to convert an inaccessible technology into an accessible one, combined with the efforts of Indian technologists to concomitantly develop telephone exchanges that were durable enough for our rural conditions and load-bearing enough for our urban ones. Suddenly, a technology that had remained out of reach of its people for decades on, doggedly refusing to bring itself into its rightful contexts of use, would become an exemplar of what people's actions combined with technology could achieve for itself ; and (b) thereby, taking us directly into what effect this initiative has had in transforming an entire cultural landscape. In addition to being an icon of the developmental process, the telephone has come to represent itself as a phenomenon that is much more than just economic, especially given the fact that the telephone in India often remains a product of shared ownership, not individual. The telephone's permeation is so complete today that an STD booth, as these are commonly known as, ends up performing as a veritable hub for human interaction itself, akin to the way the pub performs as a catalyst for socialising in the UK. As a cultural phenomenon, this throws up promises for the designer to lend his design-related core competencies towards enhancing and enriching the environment that is represented by these hubs of activities.

For us, the STD booths represent the promise to deliver the infrastructure that would be required for installing at least the rudimentaries of the Net, even if these did not have the seeds of post-industrial society's cyber cafés of tomorrow.

(2)Taking off from the earlier mentioned attitude of the sacred that is personified by shared space and shared resources, and in that sense, by shared ownership, we need to understand the implications of such an attitude vis a vis the Internet, and particularly with regard to what the Internet could deliver in terms of functionality in India's larger reality-context. Since the Internet's outreach in India is being projected to be a function of shared ownership in the form of the Internet residing on collective space in STD booths, rather than as a personal computer in every home as in the West, the technology already has a chance to begin moving into the collective psyche of the

public space in India. It will be interesting to see whether this technology can be nurtured to suit people's interests to such an extent that it is further moved into the 'sacred'. Once again, the sacred here being defined as something that is tested and reliable and hence revered. If, for instance, the Internet is seen to be a device that could help the large number of families in the rural countryside to keep in touch, at a reasonable economic cost, with those members of the family who have had to migrate to the urban centres to earn their living, then the Internet can be seen to be treading the path of the sacred. At least in the sense of a device for communication being useful and reliable. If this technology could help scores of craftspeople from the rural countryside to establish direct contact with their markets, usually in the urban areas, thereby helping them to remove a major cross from their shoulders in the form of the dreaded middlemen who have, for decades on end, have bled these impoverished workers white, then the Internet could begin to assume a position that would be more than a useful infrastructure for communications. Suddenly, the traditional skills backed by the collective wisdom of these crafts people will have been resurrected with no extra effort, and at a reasonable economic cost. It is the way television made its grand entry into the rural countryside of India, again about a decade ago, and again in the form of collective ownership. Suddenly the common man was lifted out of his relative isolation to a literally wide view of the outside world. The fact that the television was an object of industrialisation, spurred into action by broadcast technology seemed not to matter at all. In stead, the dramatic transformation introduced into his life had rendered the television sacred. If the Internet is to effectively permeate down to the common man's everyday existence, then the technology will need to move into the realms of the sacred, into the essentially collective and the useful. Which will be one of the easiest ways to make the technology look less intimidating, and more inviting. The technology needs to home in into the existing mindsets of its users by reincarnating itself into anything but its cyber self, rather than try and convert users into thinking cyber. Only then will the Internet find its real home in developing countries. Otherwise, the costs of the technology-installation will become a decisive factor in pre-empting all outside initiatives.

Control of the Internet: Which finally brings us to the factor of who gets to control the Internet - the people or the technology? This is a crucial question for anybody. But especially in the context of the technology's widespread ramifications for the future of communications and its impending emergence in India, we need to understand whether there can be hope for the Net's accommodation within India's cultural paradigm. Once again it is a matter of cultural attitude that will determine if the radically changing "knowledge, power and material relationships" spurred by this new form of communications will work to our advantage,

as Red Burns, 'earth mother of technology' and a founder of New York City's Silicon Alley would assert.

Given the fact of the already widespread instances of shared ownership of the Net's installation-infrastructure in India, it might yet be possible to draw on examples that depend on shared resources. We would like to place before us the case of the body building of trucks and buses in India and which run on the concept of decentralised manufacturing. As a veritable idiom of many other branches of our production economy, the way this operates is as follows: to a large extent, *truck* and bus manufacturers in India supply the bare chassis, leaving the small scale sector to build the body. The skills employed by these enterprises to build the body are entirely localised, usually revolving around metal fabricators, carpenters and painters. The net result is one that is akin to vernacular architecture - where not only is the vocabulary of the outward product-expression an extension of the language and the affinities of the region, but even the block- by-block construction of an industrial product is now no longer obsessively dependent on a centralised manufacturing process. The final control of the look and feel of the product passes on into the hands of local enterprise. It is not surprising, therefore, that trucks from Rajasthan, in India's desert state on the West, for example, begin to look like its 'havelis' or the palaces of the erstwhile landed gentry, rather than a truck that has the homogenised appearance of a product straight out of the assembly line.

In terms of implications this is not just a matter of providing variety and cultural expressions to the product landscape. It is represents devolution of control. Decentralised manufacturing obviously has a way of fostering local design idioms which, in essence, can only be possible when one is in a position to exercise choices at more 'personal' levels of operations, rather than those at the levels of the corporate. In the case of the Internet, its mode of communication and expression could be used by one voice or by many. But "determining whose voice gets heard, determining an equitable use of this new power will be an important issue to consider." (Burns, '91) Can we superimpose this model of devolution of control over the Internet's applications in India in a way that will so that will ultimately enable the people and not the technologists to build up from the basic infrastructure according to their felt-needs?

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Conclusion

As of now, the Net boasts of a 100 million users world wide (Bhatia, '98). With a current growth rate of 5% per month (Balakrishnan, '97), the Net forms the mouthpiece for everything from its governments to NGO's to the corporate world. In other words, the Net's audience profile is so profuse and all-encompassing that it would be a shame to be left out of this revolution. The Internet's ability to disseminate and update news swiftly, to reach millions instantaneously and to provide interactivity ends up placing an enormous responsibility in the hands of the designer. Because it is the designer who will have to build the communication interfaces between the technology and its users. And if the designer were to further belong to a developing country like India, then a few ideological responsibilities for him would become inescapable.

For him, at the end of the day he would need to look back at a piece of technology and be able to claim that he had made it useful and effectively accessible to its people. Particularly because there is the matter of scarce resources fighting its place amongst varying priorities. The intention will to be able to create a post-colonial, post-modern space for our culture in which we have not merely reproblematised a given problem, but actually arrived at constructs with which to actually answer these questions regarding our intentions with technology. As Red Burns maintains, "historically, the landscape is littered with examples of technologies that were developed for one purpose and but used for vastly different ones." Such as when the Eskimos in remote Northern Canada got direct-satellite telephone communications for the first time about 20 years ago. In stead of the usual anticipated use of the telephone, viz., to talk to each other, the Eskimos actually ended up calling Seattle to check the market for seal meat and to help them cut their financial deals.

We reckon that the Internet will find its true foothold in India the day we have been able to present it to the common man as something that is likely to affect his life in a positive manner rather than as a piece of technology that overwhelms him into submission, simply because he had been forced to allowed the technology to drive the application rather than the reverse. If we could work around assumptions of weaving an invention into the fabric of a country's cultural paradigm, then this model presented here could hold good not just for the Internet but for many other emerging technologies.

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