

# New Paradigms in Design Practice and Influences on Design Education

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## Abstract:

As the information technology pours over the faster production and faster transportation facilities, a different picture of consumption and consumers emerge. Technology, speed of life, growing urbanization, need for distinction in the information-clutter, need for closer networking, evolution of new materials and evolution of 'strategists' in the industry, together present an anchor for design education to ponder over the content in the new age.

The paper discusses the new 'virtues' or 'skills' that a designer needs to be equipped with in the new scenario. While basic tenets of design education don't change, what definitely changes is the boundary conditions for design application. Design education needs to gear up to the new challenges posed at this juncture that would amplify in the years to come.

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## Branding: Part versus Whole, logo versus no-logo

Often we hear the 'no-logo' noises. Also, more detailed thoughts on branding and the way it is progressing are there in the designers' minds. A Yahoo group, where majority of Indian designers meet digitally, has seen lots of comments from active designers on branding v/s no branding. If for a moment we leave aside the ongoing cliches and 'understood' connotations of branding, a basic distillate of 'distinction' remains. Let's explore that.

As we are slowly sinking deep into information glut, our memory is failing us. One needs PDAs and digital diaries to remember names and telephone numbers, not to talk of addresses and anniversaries. Thousands of companies take birth in the economic eco-system worldwide and unleash in the market thousands of new products or services. Not all affect the entire population. Nor do we remain completely unaffected by them. Compared to the last decade, we can see that the

media impounding of names and images of the new products and services has gone multifold. Even a four-year old child now speaks brands and not the product or category (i.e. McDonalds and not Burgers...). Thus in this crowd, if one has to launch a new service or product, it has to be genuinely differentiated to be sold or consumed. Once there is effort in differentiating the function, there is equal effort in naming the same. Things that are not distinct from each other would be thrown into oblivion by the turbo-memory of new age masses. Not only is the creation of a distinct identity important but more important is the continuous nourishment of that in the public mind.

There is another way to understand branding. Electrical engineering differentiates the 'noise' and the 'signal' very clearly. It also says that for a signal to be a 'signal', it has to be

a) Of certain characteristics that are different from noise, b) It has to be consistent on those characteristics. Our brain can only register a signal and map it if it has been distinct and also repeatedly occurs with the same distinction. A little 'mindshare' in the cluttered minds today may cost enormous care in 'distinction' and 'consistency'. Dimensions of 'branding' may change, not the concept itself. 'No distinction' is the state of boring, drab and machine-like race, which in the near future does not seem to be a possibility.

Rule of consistency of 'message' finds a more visible application for itself in company branding. If a company wants to be known for smart and high-tech products, it can no longer afford to receive guests in a rundown office with a lethargic receptionist. If a company wants to be known as a honest transparent service company; yes, its name, logo and tagline would say that. But in the holistic sense it would have to pull down all the tall partitions and cabins in the company for a subconscious reinforcement of the germination of brand thought.

Now this very thought of 'consistent messaging' has brought into being the 'brand strategy' which forced design studios to shift their gears from 'graphic design'. A more intense thought needs to be put before a designer gets down to even think of shapes and colors for a company or a product. Entire interaction of the new entity needs to be mapped in the psycho-economic realm, before the doodling happens. Graphic design does start appearing as the last line 'applied-end' of 'branding'. Here is where the new challenge lies for the young designers and the education; to effectively morph the 'strategy' with 'execution'. At times it may go at loggerheads with the established monoliths of 'strategy' i.e. management consultants or advertising agencies. Yet, this is the new hybrid reality that requires a brisk absorption and constant rejuvenation.

## Technology Driven Design

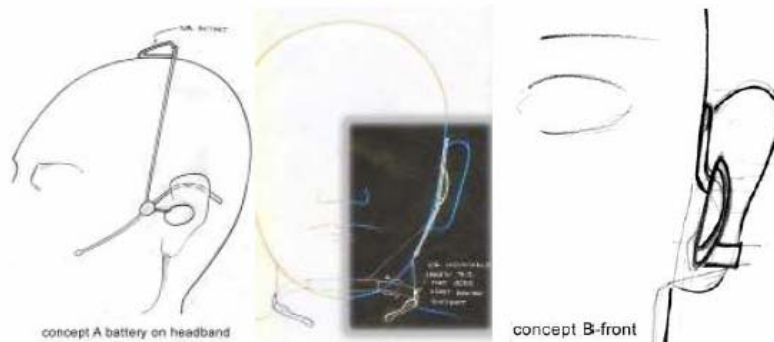
When I was putting this title, many thoughts were in my mind. Something that resembles one of the final projects at NID is called Technically Complex Project. I am sure that there was a specific motive

behind separating out a 'Complex Project' that is technology intensive. Somehow, a craft design or a simple gadget design or even a brand identity design is far away from a Technology driven design i.e. design of a robot pet. 'Robo' design is an electro-mechanical engineering exercise while making it a 'pet' is a typical designer's job. I can just wonder at the product promo as to who would be able to design it the best; an ad agency which has been selling toys or a design agency which takes up complete branding for techno-gadgets and their companies.

The robot-pet AIBO (successfully made and sold by Sony) is an indication of things that would be on our way soon. While Philip Starck simplicity would be one side of the design corridor, the robots or semi-intelligent, interactive, electro-mechanical gadgets would be the other side of it. They would need less of form tweaking, more of interface/interaction design, a highly evolved engineering knowledge in close co-ordination with the product designer and many aspects of sturdier and lighter materials. Number of interacting agencies and expert groups would spiral up. Psychologists

would have a new task at hand in terms of designing the cognitive responses from a machine. Though it may sound a bit like part of fiction but one can already see the trickles of such projects landing in design studios across the world.

There is another aspect of 'technology driven design' that is pushing the process to limits. Taking up a patented/patentable technology and building products that are marketable or in another words, productizing a technology has been a mainstay of many industrial designers and design houses. It poses the challenges which are more of 'integration' challenges of the distant elements. Nano-technology is still far from being amenable to commercial production around it, one can only see 'applied' technologies doing rounds. No 'disruptive' technology is foreseen in the near future. This means products would continue to emanate from applied technologies, which don't throw the form-function relations out of gear. Still miniaturization is one significant trend that is visible today and would be fiercely visible tomorrow. When at Onio we sat down to design a blue-tooth earphone three years back, we started feeling that we are toeing the line of a jewelry designer. Contortions in form required for the ear-phone to be comfortable to ears were better done by a doodler than an automobile designer who is used to tight aerodynamic digital curves. It was faster to make a shape in clay and put it on the ears to check out how it feels wearing it, than to wait for the 'rapid protos'.



## Coping with Rapid Product Development Cycles

Speed is the name of the new age. Only thing moving slowly is the payouts to designers.... What exactly is the impact of speed? Do serial thinking and serial design processes of yesteryears hold good today? Faster consumption demands faster new products and better new products. No one has time for a perfect masterpiece that may take twice the time.

Four agencies working overnight across the globe to conceptualize a new product that is to be launched in one month...its not something that is taught at design schools. Co-creation is being discussed; tools are still in their formative stages. More than the tools, it is the orientation to

create new ideas collaboratively in remote locations, is making the difference. It is as if one has been traveling in bus all this while and suddenly, has been handed air-tickets; the whole understanding of travel changes. One has to get adapted to the system of elaborate boarding procedures, emergency landing procedures, systematic transfer of belongings and strictly guided behavior during the flight. So the majority of the travel becomes hyper-fast while after landing one is still free to explore things around on ground at a more comfortable pace. Design too, is quickly reaching a stage where design schools are still teaching ground travel (yes, a firm footing while walking is surely the first step of movement), while world is ready to fly. Remote collaboration, rapid-prototyping, faster research modes, faster manufacturing and of course faster consumption needs faster design. Product development cycles have crunched like never before. Non-Destructive Testing and Accelerated Testing methodologies are being increasingly preferred. How to say to a remote (distant geographic location) collaborator that 'all three concepts shown by him are totally off the mark', is a protocol that probably needs to be taught to budding designers or design managers. In our own experience, Onio had designed an MP3 CD player in 1999 (when the world was just coming to know what MP3 means) for a Hong Kong based company. The [Model prepared in 3 days with Chinese Model Maker, without any drawings, 1999, Onio]



product concept was created in three days and we could manage to make a mock-up in next four days at a Chinese model-making shop without any drawings.

Circumventing the communication problem, sans drawings, I used a rough foam model, a Corel rendering, instant cross-sections drawn on-demand and lots of hand gestures to explain the concept to the Chinese model-maker. The concept was showcased at the Consumer Electronic show, two days later in HK. That was sort of a prelude to issues global designers can face in times to come.

## **Personalization in the age of Mass Manufacturing**

Personalization is one big trend that is being seen on the world horizon. Personalized cosmetics or Beauty care is passé, coming home is now personalized medical services (even micro-surgery at home is not far behind, if one goes by what USA based trend spotter Faith Popcorn predicts). HandyLab, a company run by an ex-IIT Mumbai student in USA has been funded for development of

portable pathological test lab (one does not need a room full of equipments after that). Miniaturization is a key ingredient to personalization, apart from a whole lot of emotional content. Miniaturization also indicates the full maturity of technology. This means that technology has reached a level where it can be spun into elements that suit a particular living need. CNCs that are traditionally known for sample batch or proto machining (or at the most some high quality machining of key components) could reach a stage where they might be vending out customized products. Each product coming out of a machine or machining center would be custom programmed as per the needs. In such a scenario the traditional constraints of mass manufacturing are diluted to a certain extent and product shapes would only be constrained by the limits of the machine. Internet content industry has been toying with the idea of personalized content for quite some years by now. Algorithms for faster and accurate delivery are evolving day by day. Google is a living example of what technology can do for a user's convenience. The 'context' brought in by Google has left others far behind struggling to find a match. In the world of peaking multiplicity of choices, personalization of product and services within the realm of production would set new demands for design profession. ...coming back of 'crafty' days is on the cards.

## **Networking and Speed- a Core Virtue**

World gets smaller everyday. Resources once considered 'inaccessible' are at an arms length now. Customer is moving closer to the seller, seller is cozying up to manufacturer, and the designer, along with R&D department is in conference with manufacturing. They all might be located thousands of miles apart, collaborating electronically in a common language. New softwares are evolving on collaborative working, sharing files, information, referencing or editing. An assignment is being handled not by an individual or a company but a network of companies. In our own experience, a project originated from a supplier to Nintendo in Taiwan. Project was to design a new cartridge case for Nintendo, in such a way that cases could be attached to each other like Lego blocks, to make interesting shapes. Project was to be completed in four days. Involved agencies were the supplier (the originator), his designer in USA, a mechanical design company in Mumbai and Onio at Pune. At a break-neck speed concepts were made and shown to Nintendo. One chosen concept was taken to the detailed solid modeling and usage illustration. Although there was no collaborative file sharing or video-conferencing in this project, yet the intensity of the experience was one predecessor to things that await designers in the future.

In some cases network is a pre-condition built into the project like our experience with Nintendo, while in other cases network of associates working with areas of expertise becomes a speed mechanism for the project. A design company equipped with better speed mechanisms gets better with each project pitched for.

Networking with similar minds, special interest groups, expert infrastructure entities and common social goals are some key focal points of networking in the new age. Alumni of IIT Mumbai (Indian

Institute of Technology, Mumbai) in Pune, are forming special action groups for better infrastructure in the city. Individuals with experience in areas of waste management, public utilities, education etc. are going out of their way to hold hands with other alumni for an unprecedented thinking for a better living for all.

## Strategy or Design?

Emergence of management education or rather the popularity of it, has put designers against a new competitor. Earlier, a client or an owner of a business would have directly talked to the design company or a designer. Now designers often get a roadmap and in-process-audit from brand managers, corporate strategists and product managers. To ascend or transcend the formal levels now take years of rapport building with the company and the management. While paradigm shift from

'design a logo' to 'design a corporate identity' is a welcome sign but shifting reins is creating jitters in the designers. New generation of designers have to learn the corporate language early. ROI (return of investments), the single factor, most effectively understood in the corporate world has to be learnt and mastered to prove the case for design. PLM (Product Life Cycle Management) is being widely used now-a-days in some software offerings where it deals with product creation, process documentation, collaboration and sharing. But this domain does not deal with important part of the product life i.e. its cognitive life, 'branding'. Thus a maze of new words coined by marketers, that diffuse the paradigms into a clutch of activities is a new challenge for young designers. Broad understanding of the 'system' i.e. how the business runs in modern times, is as primary an understanding as 'form' and 'function'. It is appropriate that a significant time (almost half a semester) be dedicated to business management as an integral part of design curriculum.

## Summary:

As information overload is increasing, 'branding' or 'focused communication' is becoming the founding fractal of design process. How to suppress 'many' and bring out 'one' is becoming a core virtue. The 'whole' seems to be hidden in the 'part'. Celebration of the 'part' without losing 'whole' is a virtue. From product design to communication design, the need for 'messaging' is taking over the perennial 'form-function' dilemma.

With global centers of specialization emerging, like China for manufacturing, India for engineering and software, there is always a cost-effective yet efficient way of working globally. A strong network comes handy like a magic-wand. Networking across the shore is becoming a core virtue. Design for global users is unthinkable without software or technology in general. In order to use the technology effectively in a way that it delivers up to the expectations, it has to be mastered by the designers. 'Mastering it' means understanding the nuances without giving-in; the ability to 'conceal' the inheritance of 'technology' and reveal the 'product'. Technology is becoming an equal virtue. As the population steeps north and global products compete locally, local energizers are needed.

Designers seeking an 'insider's view' of the local market need to undertake 'ethnographic studies' in addition to the reliance on 'statistics only' information from the market research.

New technologies are also bringing the 'crafts' back. Individualistic customization is coming in, within industrial production scenario. The 'made-to-order' paradigm needs technologies that can parameterize the needs of human beings and cater to customization orders. We are talking of 'middleware' designers, who would help the machines understand the human needs in parametric form. An eclectic mix of cognitive sciences, sociology, psychology, and ergonomics is emerging. Increasingly, designers are finding their position in the industry shifting towards 'executors' which once was poised to become 'strategist'. Clear understanding of modern business paradigm is one crucial input missing in the design education today.