Design For All

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4th Annual Issue

Chairman's Desk:

Thoughts that come with doves' footsteps guide the world.
Friedrich Nietzsche

Having reached the mile stone of 4th years of publication of our Newsletter, we from our Design For All Institute of India wish to extend our gratitude to the global community for years of excellent cooperation. We are fortunate in acquiring long standing relationship with so many individuals and organizations all over the world. It is a matter of satisfaction for our degree of achievement. We have blessings of EIDD, IAUD-Japan, IDSA-USA, Royal College of Art, London. Design For All Foundation -Barcelona and many more. They have helped in collaborating for publication of special issues with our Newsletter of Design For All. This year we have invited a few eminent personalities from various allied areas as guest Editors for our special issues and requested them to invite the authors of their own choices for contribution of articles for our newsletter.

In this series Prof Jim S Sandhu from UK, Dr Rains Scott of Rolling Stone and Ms Jani Nayar of SATH-USA have done the services beyond all expectations. We have also started a new series by inviting different publication organizations who are engaged in popularizing the concept of Universal Design/ Design For All to collaborate with us for a special issue. Editor Mr. John P. S Salmen of Universal Designers & Consultant Inc who is publishing a decade old newsletter has published a special issue. We thought few were lucky enough to attend the conference and others were unable to do the same. Reason may be financial constraint or administrative (VISA formalities) or political reason (countries are not in good relation). Our idea is that the conclusion and outcome of discussion of the conference are known to the few or that die either at the corridor of conference or portico of hotel since peoples memory are short and they get busy in other activities and forget what was the unique idea they have picked up in conference. Keeping this in mind we opine that the outcome of conference should be known at the grass root level .No one knows when a flash of idea may strike to some mind out of outcome of conference and can revolutionize the society. An ideas are everywhere around us only we need a proper bent of mind and a little training to pick an idea from our surroundings. We have invited the Norwegian Design Council, since they have organized an international conference and we requested them to organize a special issue with us. Our team is expressing a special thanks to Ms Onny Eikhaug It was at the same time very nice experience with different organizations and they are now emotional and natural allies for

our social movement of popularizing the concept of Universal Design/ Design For All. We believe 'Let the knowledge flow freely and whosoever living in other part of the earth should be benefited'. No one should live in dark in this era of knowledge and be left out, deprived. The knowledge should be at his doorstep or at the click of button of mouse. To spread knowledge our newsletter is one of the best media. If we care be a small candle in the room of darkness, we take it as our achievement

I am raising a very minor but relevant question that is haunting every designer 'What is the future of Design?' I was under the impression this question is known to those who are engaged in parting knowledge and preparing our future designers. Initially I was whispering and thought my foolishness would be exposed with this question. As I noticed that more and more designers are skeptical about this question, my whispering has slowly gained the voice and ultimately turned to ear deafening shouting for search of rational answer. I am yet to receive proper answer. History has not been led by crowds. There is mindscopic minority living in modesty and throwing up ideas which push the civilization forward.

Some are willing to discuss and they participate as it is simplest question of their lives and started with high enthusiasm .As they realize they do not have proper logic to support and their enthusiasm vanishes and they are leave this discussion in mid. Either they have found it is heading no where or discussion is exposing that they are hollow inside and

what others place them in high esteem as an authority, are nowhere close to it.

Most of the designers are not willing to accept this idea in very first place and are destined to face their fears. I am not interested in those who are willing to discuss. Reason, they are aware about significance of it. They might answer with their good understating of continuity of history and would club the forecasting tools and will infer to some conclusions. They will look at other with inflated chest as they have emerged clear winners. These Kinds of people are very cautious while discussing. They use their clever tactics and never do that which harms them in future. Either they use good sense of their judgment about what is the need of the hour or they keep on changing their colors according to whom they are discussing and satisfies others ego or they pretend to be extra smart in hijacking the others ideas and successfully present in their own format and style. Such people acquire high status in society but in return they do not have much for their profession and society at large. Irony of human civilization is that they are at the helm of the affairs and they make all type of decisions of good or bad.

Are not we aware that designers are not working in isolation and they also use latest developments of others areas of science in their works? The way material science and other technologies are changing it is very difficult for any traditional designers to hold to their current positions. It becomes very difficult for these designers to forecast the future of design

because others allied areas are changing rapidly. Those who don't keep sharp eye on change environments and keep on working with their traditional mindset with complete honesty, sincerity throughout their lives never attain that status what they deserve . Few may be lucky and get their due recognition and rest dies unnoticed, unsung. We need persons who have inner strengths and are meditative. They would focus their sharp minds who can visualize beyond the dark or the thing at horizon. Our future of design lies at either at horizon of our thoughts or in perception.

Those who are rejecting this idea, they either have deep sense of fear of exposing with their own reality or they have good intention but find themselves helpless or they are victim of their own illusion. It may be other side that either they are way behind with new technological trained designer or they are living in ignorance and they consider it bliss. I advocate all the time ignorance is not bliss it may mostly create havoc in all. It is my advice that instead of running away from reality we should have courage to face it boldly. We must march forward with new technology, techniques and thoughts. After the lapse of three decades Universal / Design For All could not achieve what it was suppose to achieve. Reason designers are receptive to new thoughts or fears of new experiment may disturb their bread and butter

There are two methods in design methodology. One is with scientific theory based on empirical model and most of the time it can be verified with experiment. Another is popular or folk

design which is functioning and has come to the present shape with their trial and error method. It is also functional and created impossible task namely construction of pyramids. Those who practice this methodology have their own notions and nobody knows how it has spread and acquired mass acceptance.

Sometimes we come across such local technology that it is amazing. I have come across a group of people who have no schooling (illiterate in the eyes of people of our status but I personally admire them) but experts in lifting a house of few storey from the foundation. They have record of raising the constructed house of brick of 2 ½ storey of any area to 11feet from ground without a single crack in wall, RCC beam, column and slab. They simply use number of bamboos power for lifting, transporting the entire structure from one place to another and till today no crack has appeared in any operations so far.

Some time local knowledge is of little consequences. After the independence, our first Prime Minister Pt. Nehru was keen to make country self reliant in agriculture and to make his idea of Green Revolution a success story, he decided to construct the biggest dams for irrigation, generation of electricity and supply of potable water to surrounding villagers. The local people refused to drink and irrigate. Reason was they thought electricity was being robbed out from the water and no real power was left in it. Who so ever would drink such water in due course of time he would be weak and impotent. The crop would

be not that healthier and nutritious if they irrigated with this water. It took government years to educate them.

'We have this myth of individual people making decisions, but our tastes are shaped by social forces.' This folk design has much wider reach than our scientifically trained designers. We must not ignore this fact. When our science was not in proper shape as we see that such type of people had revolutionized the world with their innocent approach of local knowledge and what we are today because of their wisdom. That was the flourishing era of science where everyone from cobbler, shoemaker, priest to king was participating with his own thoughts and no one was in position to evaluate others work or downgrade another for personal interest. If anyone has a workable idea and everyone may benefit it will sooner or later diffuse to all level of society. There was no copy right, no patent but they have done marvelous work without any personal benefits. Science in 18th century was great. They have laid down the blueprint for 19th century but this century could not prepare any blue print for our 20th century. Reason we are not encouraging real local talents. We give much importance to few schools of thoughts and rest whatever their best thoughts are treated as garbage. What is our current state of the world? Where are our trained managers, risk analysts, technocrats and politicians? All models and theories and so called great brains are responsible for our current crisis. World never run on hype, propaganda and marketing, it runs on hard facts, respect for natural talents and mutual respects of another ideas; not of

mastering in art of compilation of degrees by few and you scratch my back and I will scratch yours.

The three classical ends of human being, as elucidated in Western philosophy, since at least the time of Socrates, are truth, beauty and the good and the three foci continue to inform human consciousness, reflection on the purpose of life, and pedagogical design I personally give crucial importance in the concept of moral beauty. What I understand of moral beauty I wish to share with all of you. Moral beauty- is uniquely able to arouse the moral emotions of elevation. This elevation is elicited by moral beauty; that is , observing human manifest moral virtues in their behavior, " triggers a distinctive feelings in the human chest of warmth and expansion; it causes a desire to become a better person oneself, and it seems open one's heart, not only to the person who triggered the feeling but also to others peoples' This elevation shares gratitude a sense of affection for the person who elicited the emotion, but its prosocial action tendencies go beyond gratitude's focus on one's benefactor to include a " generalized desire to become a better person oneself and to follow the example of the moral exemplar. I wish that all designers start searching the moral beauty in their works, it will help in popularizing the concept of Universal/ Design For All.

This moral beauty touches our concern for environment and sensitizes us toward the living beings. To follow the path of moral beauty one should first have knowledge and the highly innovative.

Our Knowledge institutions in the world face unique challenges after the financial crisis. This crisis has come to us because our political system could not throw up genuine leaders and leadership is bankrupt. Our current problems associated with hunger, inequities and terrorism are complex and require considerable human resources and new technology and that too which can translate into actions. The roles of designers are day by day increasing and our designers are not taking initiative to lead these crisis situations. Once other will overtake by adapting themselves to new changing environments we shall remain a supportive and will be treated as simply follower. The call of time is to be innovative and sustain the world. We are looking for such leaders who have genuine designs for raising a great future.

A society can progress if people have good number of innovator. In innovation technology, many materials & tools are place before the designer and he/she device a new technique that those present has ever thought to apply. It either improves the functionality of the existing product or cost effective technique helps the manufacturer or customers. It is nowhere creativity but we confuse with creativity into invention. I call it alternative method .Innovation needs little extra deep understanding and that can be achieved by extra training. Creativity can not be acquired by training. It is beyond man's perception and how it strikes the man, is still a mystery and no grammar of psychology can explain

Innovative knowledge institutions and partnership are needed and they must guided by certain principle. Several supportive actions are necessary for new institutions to emerge and flourish. We need to produce better innovator we must raise the sense of optimism: designers and scientists engineers should work together and must share an assumption, based on past experience that all problems are, in principle, solvable. Only mankind has to rise and accept the technology.

A second valuable attitude is a focus on long-term consequences. The understandings of the natural world derived from science often allow us to predict the future; how the human body changes with age, what are the universal behavior of humans, etc A third valuable characteristic of most designers and scientists, engineers is an emphasis on discovering what works for all. For success we require that we should approach every problem with humility, knowing that our favorite hypotheses may be wrong.

The voice of the intellect is a soft one, but it does not rest until it has gained a hearing (Sigmund Freud)

It is very difficult for intellectuals to come to unanimous conclusion for solving the problems. Each intellectual has his own web of knowledge and perceives the problem in his own style. His solutions differ from others. People in general have fixed mindset and they are confident, adamant in their solution that one is best and can lead better .It is very difficult for creating a consensus with of all peoples. There is no consensus on what to do, not least, because increasingly, consensus seems more and more difficult to reach in our country. The

problem of arriving at a consensus is more serious in some places than others: it may be, the longer the history, the more difficult consensus is to reach. It is advisable that we should explore the solution locally but it should have global flavor. Be simple and practical in thoughts and do not get entangled in intellectuals' discussions.

When I look at ourselves we never imagine that we may achieve what we have achieved in such a short span. Our newsletter has achieved the status of mouthpiece of Universal/ Design For All/ Inclusive/ Barrier free Design and our monthly publication without fail is open for public in every month of 24-25th. We never imagined in initial stage that People response will very enthusiastic and will welcome us with their open arms as they were looking for someone to start such publication. We were unknown to all of them but we were welcomed as very close to their hearts. At present we have emotional bonding. We believe in philosophy of 'Live in present and do your best. Never haunt with idea of future'. Future some time disheartens us takes our fighting sprit. Imagination of future mostly generates fears and occasionally enhances our strength.

Art of living in present is crucial for everyone. When pregnant woman mentally prepares herself for bearing the labor pain is much horrifying and when she delivers the child she realizes all her mental exercise , training and preparedness was no use and she did what she never thought and acted accordingly call of present. It was not horrifying experience rather it was heavenly experience and she fulfilled her nature duty. Nature is not cruel it is kind and we should take pledge that we will

always kind to nature. Reciprocal understanding always makes us progress.

The present is, we are celebrating end of 2008 and about to welcome year 2009. Year 2009 is declared as "Year of Creativity and Innovation" by EIDD.

4th January 2009 is a great day for celebration of great occasion of birth bicentenary of inventor of Braille language Mr. Louis Braille of France. To honor and commemorate this occasion, Government of India is releasing a set of coins and we are publishing a special issue with ICDRI and Chairman Mr. Mike Burks has accepted the invitation of Guest Editor. In our next issue we will make an appeal to different governments of different countries for enhancing all kinds of facilities for this noble cause.

Wishing all our readers Merry Christmas and Prosperous Design full New Year 2009

With regards
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Content of December 2008 Vol-3, No-12

Forth coming issue of newsletter of Design For All Institute of India

1.

January 2009 Vol-4, No-1 issue is celebration of bicentenary of invention of Braille language with ICDRI and Chairman Mr. Mike Burks has accepted the invitation of the Guest Editor of this special issue.

2.

April 2009 Vol-4, No-4 is special issue with Design & Industry Department of San Francisco State University and Chair, Prof Ricardo Gomes has accepted the invitation of Guest Editor . This special issue is featuring "Universal Design @SFSU."

3.

Newly formed organization in Taiwan Asian Universal Design Network has expressed to collbrate with us for special issue and Mr Chang Tang is inviting articles on the behalf of Design For All Institute of India from their members.

Editor's Desk:

This issue, an annual milestone, takes my thoughts to February 2006, when the first issue was put online. That first act was a great act of faith. It was a pure gut initiative. Since then both the number of contributors and the readership has steadily increased. What has driven this design success? Surely it was not design quality as it is normally understood, nor was it impeccable command on language or editorial quality. What has catalysed, was immense honesty and sincerity *towards the need to reach out and bring together all schools of thought*. The regularity & punctuality has been on the dot. The success has not been built on philanthropic donations or commercial allurements. It was 100% voluntary effort from the contributors and the editorial team alike. It is a great collaborative *mahayana* venture still in its infancy.

This issue, Volume 3, No 12, brings together a collection of original papers that have been contributed by experts, on special invitation from the chairman, Dr. Sunil Bhatia. I am sure that this collection will be very useful to design researchers and will influence the future growth of the design for all /

universal design / inclusive design / sustainable design movement. The first paper is by Dr. Peter Zak. He reflects on the future of mankind and the role that design in general and universal design in particular will play in years to come. He foresees the emergence of the new field of 'Life Science Design' that will foster the emergence of mankind. The second paper by Pete Kercher talks of design paradigm and paradigm shifts towards social inclusion and sustainability. He convincingly establishes that designing for sustainability and designing for all are two sides of the same coin. The third paper from myself is an effort to develop a alternative framework for study of design solution space based on different thinking styles, available resources, and an attitude to life itself. Over the years I have applied this framework in my class with considerable success. It enables design students to better appreciate how diversity of solutions can be created. Creativity and caring are both simultaneously explored in thinking about design. The fourth paper is by Mr. Finn Petrén, President, EIDD Design for All Europe. It gives a detailed report of the growing activities of EIDD Europe. The fifth paper is contributed by Michal J. Ozmin, He distils from his experience as a design educationist and as a design consultant, the need to see constraints as spurs for creativity and innovativeness. The design briefs and legislations should be seen as merely the bottom line of expectations. Going beyond compliance is essential for the fruits of 'design for all' movement to enrich the society.

The sixth contribution comes from Dr. Martina Maria Keitsch. Martina. Martina extends the usage of narrative tools, with a

special focus on personas and shows through student case study, how the same can enhance the efficacy of Universal Design in solving design problems.

The last but not least, we have a collaborative contribution from from Sheryl Burgstahler, Alice Anderson, John Slatin and Kay Lewis. They come from three different universities. This paper focuses on application of Universal Design in the context of information technology (IT) at the University of Washington. This is a most comprehensive study that can serve as an excellent starting point for other institutions to follow.

The journey till now, at the 'Design for All Institute of India' has been very satisfying, even though limited and focused. As we move towards the fifth annual issue, we hope that the participation from more countries and cultures will come forth. In due course the initiative will evolve into an alliance of knowledge, practice, wisdom and people, needed for better managing life on this planet earth.

Happy Christmas, Happy New Year, Happy Thinking and Happy Doing.

Best wishes

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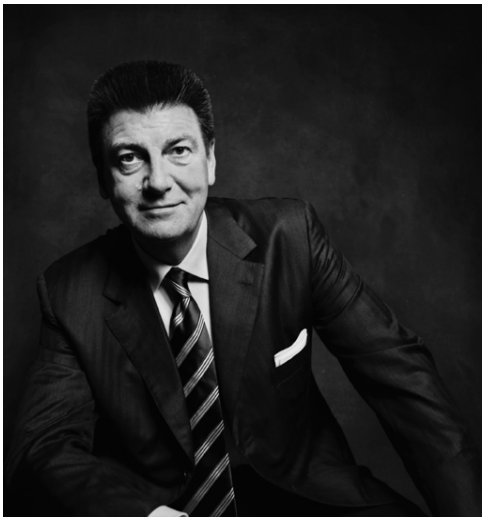

Prof. Dr. Peter Zec

Professor Dr. Peter Zec, born in 1956, studied Media Science, Psychology and Art Science.

Since May 2001, Peter Zec is president of the red dot GmbH & Co. KG.

Since 1991, he has been president of the internationally renowned Design Zentrum Nordrhein Westfalen. In 1993, he accepted the professorship of Business Communication at the University of Applied Sciences Berlin.

From September 2005 to October 2007, Zec was president of the international umbrella organisation of design ICSID (International Council of Societies of Industrial Design) and from October 2006 to October 2007 chairman of the International Design Alliance IDA, thus holding the highest official posts in the design world. As a former Icsid president, he now holds the rank of "Icsid Senator" and is consulted on all important issues concerning the association.

For over 20 years, Peter Zec has been working as a design consultant with numerous companies in foreign countries. He

has gained world-wide recognition with lectures in more than 30 countries.

In October 2006, the leading German magazine for economics, the "WirtschaftsWoche", elected Peter Zec one of the "20 creative unconventional thinkers worldwide changing the appearance of their companies and creating completely new markets".

From 1986 to 1988 he was head of the specialist field "image" and as such was highly involved in the planning of the Centre of Arts and Media Technologies (ZKM), which had been established in Karlsruhe. Before he started working for the Design Zentrum Nordrhein Westfalen, Peter Zec waspresident of the Federation of German Graphic Designers (BDG) and the Association of German Industrial Designers (VDID).

As an expert on the German as well as the international design scene he is the publisher of the "red dot design yearbook" and the "red dot communication design yearbook". He has published the following books among others:

Informationsdesign (1988), Design goes virtual! (1996), German Design Standards (1997; 2005), Designing Success (1999), Good Design. (2000), Orientierung im Raum (2002), Hall of Fame. Companies Searching for Excellence in Design (2003; 2007),Return on Ideas – Better by Design (2006), Who's Who in Design (2003; 2007).

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Universal Design / Design For All

Professor Dr. Peter Zec

The question "How will we live in the future?" is the ultimate question of mankind. Generations before have dealt with this existential topic, modern philosophical and scientific approaches of the twentieth century resulted in theories about the future which sometimes even became reality. Everyone knows science fiction scenarios like George Orwell's "1984", Stanley Kubrick's "2001: A Space Odyssey" or Richard Fleischer's "Fantastic Voyage", and sooner or later, everyone discovers a trace of truth despite all the fiction.

The matter of future existence is also of utmost importance in the fields of design. No matter how the common idea of aesthetics is momentarily influenced by a trend, design has the commitment of thinking ahead, of serving needs that have not yet come up. The designer has to be skilled in a variety of disciplines. Not only is good form important for the creative process, the designer must also have an idea about the latest trends in both material science and modern technologies. With regard to social and cultural interests, today's designer faces a changing living situation. The demographic change is and will be an important topic in the face of the aging society. "Universal Design" will be the ideal of the future – no matter which condition the user is in, the product has to be intelligent, easy to handle and flexible to use for anyone and in any situation. A completely new design field opens when it comes

to the increasing demand of medical devices and flexible design solutions: the Life Science Design.

Life Science Design, as the term already suggests, is a combination of design and life sciences, i.e. medical technology, biology, bionics, genetics or nanotechnology, but it also has to do with philosophy and religion. This complex of topics ultimately comes down to the human being. In the past, the life sciences and design have rather co-existed side by side, with each science being able to inspire the other. There has been hardly any talk of a symbiosis of the two or even a hybrid new discipline such as Life Science Design until recently. It is about an interdisciplinary co-operation of researchers, developers, and designers who render complex medical issues comprehensible and who utilize insights and products resulting from that research. The most important thing for future scenarios: design must play a part in the life sciences –not just to assist in utilising the newly created possibilities but also to find ways and means to convey them – no matter if it is about the visualisation of research results or the operability of a new medical product.

We can experience life only through our senses, by hearing, seeing, smelling, tasting, and feeling. Life is a sensory, aesthetic process. It is not only experienced through sensory perception, but also restricted by it. If a person is handicapped in any way, one or more senses are affected or the mobility is limited. The newest technologies and modern sciences work at solutions that might replace the missing abilities in an artificial

way. Only when the tools have an appropriate form, however, they can be used at an optimum scale. Life science and design must work hand in hand. With a high degree of technical effort, they together can attempt to enhance the quality of life. Life Science Design does not only provide a new understanding of the connection of natural and artificial forms - Life Science Design seems to reshape our understanding of the concept of life. A new way of thinking and a different social self-conception will result from our changing society and the idea of a universal design plays an important role in that.

The Renaissance stands for the rediscovery of the individual. Like no other, Leonardo da Vince had a talent for the arts and the sciences at the same time. He was a painter and an architect, a sculptor and a mechanic, an engineer and a philosopher. However, he was not an artist who was looking for the beauty of man in the ancient role models. He was looking into the future. Since then, the picture of aesthetics has continually changed but the wish for an aesthetic life has remained and continues to influence the sciences and design into the future. Design plays an essential role in every part of our life, and in our perception. It can serve as a communicator and it facilitates life in every respect. Our definition of aesthetics has and always will be strongly influenced by design.

Professor Dr. Peter Zec

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EIDD - DESIGN FOR ALL EUROPE

ENHANCING THE QUALITY OF LIFE THROUGH DESIGN FOR ALL

Pete Kercher ***followed up a law degree from Southampton University with a period in international youth politics (Vice-President, European Federation of Liberal and Radical Youth, 1975-77). Moving to Italy in 1978, he established a communications consultancy, with a specialisation in art, architecture and design. After a period as Executive Officer of BEDA (the Bureau of European Designers Associations www.beda.org) from 1988 to 1994, he represented Italy on its Board of Directors until 2002 (Honorary Secretary, 1999-2000) www.beda.org. A founder member of EIDD – Design for All Europe (then: the European Institute for Design and Disability www.design-for-all.org) in 1993 and its Italian national***

organisation IIDD – Design for All Italia www.iidd.it in 1994 (President, 1997-1999), he served on the EIDD Executive Committee uninterruptedly from 1997 to 2007 and as President from 2003-2007. He now serves as EIDD's roving Ambassador.

A convinced believer in interdisciplinary cross-fertilisation and synergy, he has written articles and manifestos for political, legal and design publications, chaired and addressed conferences, seminars and symposia all over Europe and the rest of the world and acted as consultant to several international projects.

As President of EIDD, he focused on critical mass in terms of membership (active official member organisations increased from four to fifteen countries in four years and work is progressing in several more), of academic credibility (the definitive EIDD Stockholm Declaration© was drafted and passed in 2004) and of taking the message about Design for All out into the real world of business and public administration, both by targeting the European Commission, other international agencies and major international organisations operating in the private sector and by devising and launching a cycle of major annual conferences focusing on macrotopics, areas where design can make a real difference: Culture for All, Work for All, Tourism for All, Design for All.

He has served as coordinator of the Italian National Design Council (2000-2001) and the International Committee of ADI, the Italian Association for Industrial Design (www.adi-

design.org 1999-2001) and as a member of scientific, advisory and editorial committees and juries for international conferences, journals and awards.

Has written many articles in specialised magazines and other publications and conducted or contributed to round tables, conferences and congresses throughout Europe and in other parts of the globe about marketing, Design for All and the workspace.

A member of the Group of Experts in Design at the Office for Harmonisation in the Internal Market, Alicante, representing Italy since the group's foundation (September 2002), he addresses major international conferences on design protection (WIPO: Venice 2004, Sofia 2006) and is currently working on a proposal for a new legal definition of design for the XXI century.

Design for All: changing the world by design

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On paradigms and paradigm changes

Revolutions may purport to change the world overnight but, as Tomasi de Lampedusa's *Gattopardo* was not the only figure in history and literature to notice, when it comes to revolutions, *plus ça change, plus ça reste la même chose*. That being said, the world is not and never has been a static place – and the same thing quite naturally applies to human society. What does indeed change society, so "the world", in the rhetorical intent expressed in the title chosen for this essay, is the series of paradigm changes that affect our attitudes as social animals to the world around us. The German sociologist Max Weber described a paradigm as the spectacles through which we observe the world around us. Those of us who need glasses for reading or protective lenses to shield delicate eyes against the aggressiveness of strong sunlight are very familiar with the differences in our outlook that are generated when we put those glasses on or take them off. Although Weber was a pioneering sociologist, he lived and wrote in the nineteenth and early twentieth centuries, at a time when the major paradigm changes of social awareness about disability had not yet started taking place in Europe; hence his understandable,

though nowadays lamentable, omission of alternative metaphors for expressing his concept to those of his fellow humans who do not use a visual interface. While laying no claim to wishing to complete the work of so eminent a scholar as Weber, I should like to make up for his shortcoming by suggesting that a similar comprehension of paradigm change can be achieved by considering the impact of the advent of railway travel in the mid-nineteenth century, which shortened journey times from days to hours, thus virtually (though of course not really) making the world a smaller place.

Social history and classical literature once again combine to paint a very gloomy picture of the social status of disabled people in Europe's past. We are all familiar with the pitiful "mad" relatives who reacted to being mysteriously shut away in damp, draughty attics by embarrassed, other wise "decent" families by ultimately setting fire to the ancient family home, burning themselves and others to death. Nor are the implications of physical disability conveyed by the figure of the limping war-wounded beggar in nineteenth-century literature any less sinister. Even the word "sinister" itself, with all the overtones of suspiciousness and otherness it conveys, originally meant no more than "left-handed", but what a lot that word now tells us about in-built cultural and social prejudices against people who are in any way disabled or perceptibly "different"!

The advent of mass communications and the discovery that they could be wielded as a very powerful weapon in the

processes of political propaganda are largely responsible for the first of the major paradigm changes under discussion here. After a first, relatively short, period during which the governments and armed forces taking part as belligerents in the First World War blithely presumed that they could use previous experience to manage the proceedings, the rapidly achieved stalemate of trench warfare, especially on the Western Front, induced them to explore new methods. Horrifying descriptions of alleged war atrocities were coupled with an unprecedented, massive use of patriotic propaganda to persuade unwitting young men on both sides of the conflict to volunteer as cannon fodder to cater for the unspeakable egoism and sheer folly of their political and military masters.

One fundamental element in that propaganda was the concept of the hero going forth to fight for freedom-democracy-stability-the fatherland… But then those heroes started coming back, in their tens and hundreds of thousands, gravely wounded, physically and mentally disabled by the shocking experience of the trenches. While nineteenth-century society had still been able to cling to its prejudicial treatment of disabled people, this was clearly no longer possible at a time when hundreds of thousand of the people who had been described repeatedly and insistently for four year as heroes were now very obviously and visibly disabled. Prejudices did not, of course, fly out of the window overnight: the murderous policy adopted by the Third Reich is ample demonstration of this. Yet the process of paradigm change had definitely been set in motion in Europe by this experience.

It was this return of the disabled heroes from the trenches that made the first energetic case in Europe for social inclusion.

What is disability?

An agenda of social inclusion must of course beg some sociological questions: what is disability and who is disabled? It is my contention, naturally shared by many, that disability is not a feature that is vested in certain individuals by virtue of their physical and/or mental characteristics, but a condition imposed on them (and others) by society when it fails to create the necessary preconditions for everyone to partake in that society equally and equitably. Indeed, with the exception of some severely and multiply disabled people, the presumption that the disabled are "others" who need charitable care and attention from society is a convenient and usually mistaken salve for social consciences that are overly fond of classifying people into identifiable categories, so as to be able to "deal" with them more easily. The fact that this simplistic approach is highly detrimental to those who cannot or do not wish to be classified into preconceived watertight containers does not seem to trouble the more efficiency-minded among those who spend their (often professional) lives drawing up classifications of everything imaginable, including people.

Unlike most other sentient creatures, the human being is dependent on its parent(s) for its existence for a considerable time after birth. Those of us who are fortunate enough to live

to an advanced age also tend to resume the need for assistance at some stage. In both of these periods, the human being experiences a lesser degree of autonomy of action than the maximum achievable by a young adult male at the peak of his physical condition and without any discernible conditions that might render interaction with the environment and with other people anything other than simple and instinctive. If we consider disability to be in practice any concomitant circumstance that complicates an individual's ability to interface and interact with the environment and with other people, it is immediately apparent that a pregnancy, followed by motherhood, so also the direct, physical relationship of interdependency between mother and child, is a medium-term disability. The period in European history otherwise known as the Enlightenment was surely hardly "enlightening" for the many women who spent their entire lives, from puberty to an early grave, in a constant state of pregnancy and early motherhood, as fifteen and more pregnancies were not uncommon. In today's fast-track world of instant communications, any inability to keep pace constitutes a real social disability, regardless of whether it is caused by a physical unavailability of the necessary IT infrastructures or by a mental inability (or disinclination) to be hurried into the snap decision-making necessary to make instant communications function.

The moral is that, according to this definition of disability, we are all disabled at some time in life: certainly in our infancy, when we have "personal assistants" whom we call our

"parents". Some of us also require the presence of those personal assistants for longer periods, sometimes throughout our lives. Those of us who are lucky enough to live to a great age once again probably require them towards the end of life. The moral is that any residual stigma that is still attached to our need for personal assistants is no more than inherited social prejudice and deserves to be treated as such.

If we accept the concept of disability as any concomitant circumstance that complicates an individual's ability to interface and interact with the environment and with other people (the "social model" of disability), then it is immediately obvious that the right way of eliminating it is not by somehow expecting to alter the individual in question, but by removing the root cause: the obstacles to interaction that litter our environment. This can be achieved by a correct application of design methodologies and practices, with a clearly stated aim of achieving and enhancing an agenda of social inclusion.

How can design lead to social inclusion?

Historically, design has always focused on generating an innovative response to identifiable situations. It goes about this by analysing a series of parameters established by the designer's client, i.e. the manufacturer, in the brief given to the designer, such as the infrastructures and technology already available, the kinds of materials that the client's staff is accustomed to working with, as well as the expertise and craftsmanship it commands, the amount of money that the

client is prepared – and able – to invest in the new product, the target market and its aspirations, any identifiable market niches, the price bracket of the end product and so on. On the basis of this analysis, the designer builds a basic idea of the range of feasible responses and it is only at this stage that (s) he embarks on the downstream process familiar to the mainstream as "design": generating one or more innovative responses to cater for the set of assumptions enshrined with the identified parameters, in such a way as to satisfy (if possible, more than satisfy) the expectations that the client has stipulated in the original brief.

This is an apt background for "Design for Disability", which is the application of these design methodologies to the identifiable task of providing better-designed technical aids. After 1918, huge numbers of war wounded led to the production of large numbers of very badly designed wheelchairs and prostheses of various kinds: it was all but impossible to interact with these cumbersome, grossly unattractive products without receiving a very clear message that they, like the people who had no choice but to use them, belonged in institutions. Not only were they unattractive: in many respects they were only marginally functional. The scope for improvement was enormous and designers had their work cut out to make these aids more attractive. As a result, many wheelchairs are now lightweight, easy to move autonomously and also attractive. The next challenge in this respect will be to update and streamline power chairs: by no means impossible, this is a fascinating challenge to human intellect and creativity.

Mass literacy has also led to a mass demand for reading glasses: like other glasses that amend the focus of the eyes at various focal lengths and sunglasses that protect them, these are now considered by many to be primarily a fashion accessory, yet their genesis is as a technical aid that has long been subjected to good design.

While this approach that targets a previously identified set of users with a previously identified range of products has done a great deal to make products, environments and services infinitely better for the majority of users, the very fact that it targets identifiable groups means inevitably that there are always some less fortunate souls who are destined to fall between the gaps in the net, as they do not exactly belong to any of the identifiable groups, or belong to more than one at the same time, so to none of them exclusively. While this can, to a certain extent, be catered for by generating increasingly tailor-made solutions for individuals, this situation is both uneconomical and anachronistic in an era of looming economic crisis and simultaneous globalisation, when the complexity of the classically identifiable categories (the various groups of people with state-recognised disabilities, but also the pregnant women mentioned before and others) is compounded by ethnic and cultural diversities that make a nonsense of our cosy Western presumptions, such as in the field of religions, taboos and the meaning of gender icons based on modern Western clothing models for identifying toilets.

Design for All is the holistic design approach that sets out to come to grips with the reality of human diversity by assuming it as one of three baselines for the design process. As the EIDD Stockholm Declaration©, adopted by the Annual General Meeting of EIDD – Design for All Europe in May 2004, states: "Design for All is design for human diversity, social inclusion and equality". In one line, it encapsulates all three of those essential baselines: Design for All sets out from the assumption of human diversity to achieve social inclusion and guarantee equality for everyone. It does this by grasping the significance of two more major paradigm changes, raising awareness about them in the design and decision-making communities and translating them into practice in the real world, often in the teeth of the resistance offered by entrenched vested interests.

Changing the design paradigm

The first of these paradigm changes is gradually taking place within the design community itself. It is no coincidence that design is often described with the adjective "industrial": design was indeed born as a requirement of the process of industrialisation, which needed to combine the new capacity for mass production of consumer goods with a degree of aesthetics sufficient to convince first lower middle class and then working class consumers that they were buying products that would enable them to aspire to a more genteel lifestyle, comparable in appearance with the works of craftsmanship used by the upper classes, but far cheaper because produced industrially. Consumer choice was at first extremely limited, as

indicated by Henry Ford's famous dictum that consumers could buy the Model-T in any colour as long as it was black. The industrial age was the age of standardisation of products, of demand and, increasingly (and regrettably) of human beings.
In the interests of standardisation in manufacturing, products were (and to a great extent still are) created – that is to say designed and produced – for a predetermined arithmetic "average user". The study of anthropometrics purported to enable designers to understand the physical requirements of human beings by merely referring to their dimensions and making due provision for those lucky enough to fall between the fifth and the ninety-fifth percentiles. At a stroke, ten percent of humanity was ruled out by statistics, while of course everyone who did not conform to a random model of human healthiness had already been ruled out before that. The justification was (is) that it is somehow uneconomical to cater for "extreme cases". I beg to differ: it is not uneconomical, it merely demonstrates a lack of innovative capacity.

Another salient feature of the industrial age paradigm is the widespread practice whereby "experts" "know what is good for you". You, the consumer, are a poor ignorant fool whose only function in life is to buy, consume and buy some more. The enormous amounts of virtual money required to provide the flow of credit that has funded this often pointless consumption is largely responsible for our current world economic meltdown.

When consumers are not consulted about their needs and desires, when "experts" make all the decisions without consulting anyone and when the consumers themselves are reduced to faceless members of bureaucratic categories, it follows quite naturally that designs are created for uses and users that are identified in advance.

Several reasons are now coming together, however, to give a much-needed jolt to this complacent mindset. The economic meltdown just mentioned is only the latest in a long series of developments that are heralding the dawn of a new age of sustainability. Another significant factor is the way that society is ageing fast: our current economic models are quite simply incapable of maintaining their momentum in a foreseeable future when there will be only 1.2 people of what is now considered to be an "employable age" for every "non-productive" member of society. As a result of enormous strides forward in medical and rehabilitation practices, large numbers of disabled people are leading far fuller and longer lives, while we all survive illnesses as we never did before. Moreover, we are more mobile during our life-cycles: we emigrate, move around and settle in different countries as never before, generating a fascinating blend of ethnic and cultural diversities in all advanced countries. In short, the very profile of society is changing radically, to such an extent that to talk about an "average person" is surely arrant nonsense… as indeed it is to design for an "average consumer": a concept that is as outdated as Henry Ford's Model-T!

The new paradigm that is gradually taking hold as the Design for All approach gains ground all over the world features a series of far-reaching differences. The first and most obvious of these is that the design brief should no longer be drawn up in such a way as to lead to a result that caters for increasingly narrow niche groups, but to ensure that its result caters for a wide diversity of users. This is done by identifying many different users and involving them in every stage of the design process: starting with the phase when the design brief is drawn up, this extends to iterative testing of prototypes before the product (service, environment…) is finally launched onto the market. Not only are users recognised as potential "experts" in their own right, but this approach avoids the costly realisation after market launch that mistakes have been made, mistakes that could have been ironed out at negligible cost if they had been discovered in time. By involving users in the brief and consultation phases, it is also possible for the resulting design to go a lot further towards catering for the unexpected and unpredictable uses that are liable to be made of it in the real world, where people not only work and eat at tables, for example, but also climb on them or play under them (so that it is advisable for a designer to ensure that all tables are more robust than strictly necessary for their conventional functions and also that they have no sharp edges underneath that could harm small children playing at house). Why cater for unpredictable uses? Simple: because humans are unpredictable!

This does not mean, however, that Design for All is that worst of all design nightmares, design by committee, nor is it a set of guidelines for creating so-called "accessible design" by implementing predetermined standards, dimensions and checklists thus can be applied by anyone, thus avoiding the "awkward inconvenience" of having to involve designers: on the contrary, the actual design phase in the entire Design for All process must be conducted by qualified professional designers.

As Design for All makes consistent reference to user involvement, it is also important to ask just who those users are. Since its stated aim is to learn from everyone who has experience that can throw light on the design process and its results, the simple answer is that the users are everyone who is involved in the product's lifecycle and the related decision-making processes, at the stages of the idea, formulation, creation, engineering, programming, production, evaluation, modification, distribution, specification, marketing, wholesaling, retailing, decommissioning, recuperating, dismantling, recycling and return to origin of the product and its component parts: they can all have something useful to say, some useful advice to offer.

The human society paradigm

The other major paradigm change that is gradually seeping into contemporary social awareness is concerned with how we as human beings perceive ourselves in relation to the society we

live in and the many layers of physical infrastructures that have been created in this world by the ceaseless activity of humanity past and present.

In the nineteenth century, Herbert Spencer and Charles Darwin introduced the concepts of the "survival of the fittest" and the "evolution of species" into contemporary sociological and anthropological discourse, contributing substantially to a major paradigm change in ethical and religious beliefs. The combination of their work to produce the theory of "social Darwinism", which has been variously attributed to Francis Galton and Friedrich Nietzsche, among others, earned well-deserved obrobrium when its effects became evident in nefarious practice before and during the Second World War. Nevertheless, Spencer's theory of the survival of the fittest has been particularly effective in expressing and informing humanity's perceptions of its place in its surroundings, both natural and artificial.

Although we consider ourselves to be largely rational in behaviour, and for some reason Western culture, possibly as a result of the rational thinking developed – though notably not exactly practised – during the Enlightenment, has developed a subliminal message that our cultural antecedents are somehow "more rational" than those of other parts of the world, we still remain very much the descendants of our primeval ancestors. For today's safety and risk consultants, for example, it is a given that the emergency exits of a building must always be located in the vicinity of the most abundant supply of natural

light. Why is this? Because if our ancestors took refuge in a cave and some form of natural phenomenon – an earthquake or a landslide, for example, but also the discovery that the cave was already inhabited by hostile carnivores – put them at risk, their most obvious way of escape was towards the cave's entrance and so towards the source of light. It is by virtue of this natural programming over hundreds of thousands of years that our ancestors developed an instinctive Pavlovian reaction that remains with us to this day. As a result, architects who design structures that are intended to house large numbers of people, be they exhibition and conference centres, major hotels, shopping centres or entertainment venues, are always well advised to locate the emergency exits near the biggest plate glass windows and not in some dark corner. When disaster strikes, we do not think rationally about the door in the corner: we flock towards the light and, far too often, end up crushed to death against those beautiful architectural plate glass windows.

The moral in this reasoning is quite straightforward: rational beings living in highly advanced twenty-first century civilisations will react instinctively like their cavemen ancestors when danger strikes. And the design community, together with the decision-makers who frame the brief within which the designer is constrained to act, must take this into due consideration, or be considered criminally liable in case of an accident.

But there is far more to this thread than this albeit laudable instance of awareness.

The Pavlovian response I mentioned a short while ago comes to far more substantial expression in the case of our attitudes towards ourselves as actors in and users of the artificial and natural environment. The ability to escape from the cave implied an ability to react and move quickly, in short the quintessential "survival of the fittest". So the logical corollary to the "escape towards the light" instinct is the "I must adapt in order to survive" instinct. Undoubtedly, we can thank this instinct for the very fact that we ourselves are alive today: we probably descend from ancestors who fled the cave faster than their unluckier peers. So Darwin appears to be vindicated and Spencer (for once) with him. Yet the question that now arises – bringing with it the second major paradigm change – is this: should we, as the rational human beings we claim to be, still be reacting instinctively, obliging ourselves to adapt to clearly hostile environments, when we ourselves, or our immediate ancestors, created those self-same hostile environments to serve human purposes? While a degree of adaptability is still a useful thing for human survival in a tropical rain forest or on a desert island, is it not somehow an intensely perverted logic that requires and expects human beings to adapt themselves to the exigencies of living in a modern metropolis, which was supposedly developed by humans and for humans, yet where human survival is more at risk on the streets every day than in the most hostile of tropical rain forests?

There is actually nothing new about this realisation and its implications for human progress. Indeed, George Bernard Shaw wrote "The reasonable man adapts himself to the world; the unreasonable one persists in trying to adapt the world to himself. Therefore, all progress depends on the unreasonable man."

The second major paradigm change that is at last beginning to turn the slowly-moving grindstones of human society is informed by this ultimately simple, straightforward message. We no longer live in a hostile natural environment, in which the agenda is to adapt successfully or die, but in a dramatically hostile artificial environment, which we are beginning to take cognisance of the need to adapt to our own many and varied requirements as diverse human beings. We have the skills (the software) and the technologies (the hardware) that are necessary to make our world inclusive and "user-friendly" for everyone: it is time to identify the tools, among which in my opinion design is of paramount importance, then roll up and sleeves and start getting the job done.

What is design?

Any statement to the effect that design constitutes an essential tool for a given purpose is necessarily incomplete in the absence of a clear, unequivocal definition that spells out exactly what is meant by this somewhat elusive term. Indeed, it could be argued that design has become so successful a concept as to suffer the inevitable devaluation of its substance:

like all successful concepts, it has tended in recent years to descend to the level of a fad, a gimmick (though hardly a cheap one!), sadly to the despicable level of the latest consumer "must-have". In a society that equates the word "designer" not with a highly qualified, innovative profession, but with an adjective that describes some fashionable frippery, like a stylish tie or an absurdly expensive and often uncomfortable – though eminently sculptural – chair, while the term "design" somehow differentiates between the expensively tasteful (as in a "design hotel") and the more mundanely usable, the entire concept is being mainstreamed with a badly flawed reputation for expense, exclusiveness, superficiality and, ultimately, superfluity. In short, the meaning of design that is so often conveyed these days can be distilled to one very unfortunate word: unnecessary.

Quite why the design community insists on shooting itself in the foot by communicating this concept is frankly a mystery, as it expresses a perception of design that could hardly be further from the truth.

Leaving aside the everyday misconceptions, then, it might be useful to look at how design is defined in certain milestone documents. The first of these, when writing and speaking in the English language, should always be the venerable Oxford English Dictionary, which published the "Depravative" to "Development" section of Volume III (of the original ten volume edition), in September 1895, including a definition of design as "A plan or scheme conceived in the mind and

intended for subsequent execution". What makes this utterly simple, straightforward definition so beautifully neat and tidy is the way it encapsulates the concept of the mental rigour and forward planning that are harnessed for a distinct purpose, that of subsequent execution. Quite rightly, it does not descend into the detail of how that can be achieved: that is not the function of a dictionary, which defines, but of an encyclopaedia, which describes in addition to an exercise in analytical rigour, logical planning and sequential execution, however, design is very much a concomitant factor in modern economic life, so has been defined variously by legislators the world over. One typical example of the legal definitions given to design can be found in the European Directive 98-71-EC, otherwise known as the Design Directive, which established the European Union-wide single design protection system administered by the Office for Harmonisation in the Internal Market, based in Alicante, Spain. For the purposes of the Directive, a legally protectable design is defined as "the outward appearance of a product or part of it which results from the lines, contours, colour, shape, texture, materials and its ornamentation". While this definition falls a long way short of providing adequate protection for the kind of applications of design that make the crucial difference to the success or failure of many an investment in a modern design-using economy, so is largely outdated and of highly questionable value to economic actors, inspiring a fascinating discussion about the meaning of design and the purpose of its protection, in order to avoid too many digressions, I shall confine my comments here to pointing out that it constitutes a substantial step backwards compared to

the OED definition in terms of real understanding about the substance and impact – real and potential – of design in and on society.

How, then, does the design community itself perceive of design? The simplest dictum in this respect is the one credited to Louis Sullivan, "Form follows Function": now nearly a hundred years old, it has stood the test of time, although to tell the truth it paints a somewhat incomplete picture. If all form were merely to follow function, then all products intended for the same function should logically have identical forms. As this is obviously not the case, we must wonder whether some are more functional than others, the implication being that the more functional ones have a form more faithful to their functions, or whether there might not possibly be other factors at work that differentiate the forms of otherwise equally functional (or dysfunctional) products.

I would contend that the latter is the more likely answer to this conundrum, identifying the ulterior factors as the ones that are introduced during the design process, so that we could build on Sullivan by stating that "Form follows Function by means of Process". That process may of course comprise the introduction of parameters of taste, identified for the purpose of ensuring that the resulting product appeals to a given market segment or social culture, but in the context of this article I would also like to stress that the process should include the concept of alternative choices of use, whose incorporation in a product may well alter its ultimate form without altering its function as

such, but arguably its functionality. One simple example of this line of reasoning is the mobile telephone that most of us use every day: we can punch in a number using the keyboard or, if we prefer, we can set the instrument to select a number from the memory in reaction to voice activation. While it is true that the alternative gateways for accessing our database of telephone numbers do not necessarily imply a different layout or visual design of the telephone itself, it is equally true that there are more ways of incorporating these features into a telephone than just one. Otherwise we would only have one model of telephones, one chair, one table.. and the world would be a very tedious place indeed.

If we discard the European Directive's outdated focus on nothing but the appearance (and possibly the tactile qualities) of a three-dimensional product's surface and accept that design has rather more options than the simplistic formula that "form follows function" (incidentally, taken to its logical conclusion, that would ultimately render the designer's professionalism superfluous), we now need a more complete definition of the concept that encapsulates the intentionality already expressed in the OED, but also applies it to a twenty-first century scenario in which design is learning how to be a major tool in creating better systems, so is being applied to system development, at a stage that is substantially upstream of the hands-on applications to manufacturing industry where it was first developed.

Without laying any claim to being either exhaustive or exclusive, I would suggest that design, in this sense, is a creative process based on iterative sequences of logical analysis, multilateral dialogue and involvement, development, conscience and consciousness, whose purpose is to generate innovative proposals in response to societal challenges of all kinds.

That design is a creative process is, I trust, beyond discussion. As design is an applied science, it follows that its models and approaches must be iterative, i.e. capable of being repeated and reapplied under comparable circumstances. Since my thesis throughout this article is that a modern approach to design must involve users in meaningful dialogues at every pertinent stage of the design process, it follows that due mention be made of this in my definition, leading logically into the resulting development, which must be both conscious of human diversities and conscientious in taking them into account from the very beginning. Ultimately, the purpose of this coming together of different forms of expertise is, as the definition states, to generate innovative proposals in response to societal challenges of all kinds. This means that, while the model is evidently based on a carefully analysed and practised methodology for the creation of industrial products, it is by no means restricted to this, but can be applied equally effectively to generating environments, communications, systems and even innovative new models for doing business in the private sector or shaping and administering the *res publicae* in the public sector.

The choice of the target word "challenges", rather than "problems", is of course utterly intentional. Despite the generalised impoverishment occasioned by slipshod use of vocabulary in the mass media, the words we use are still vehicles that convey meanings of great importance. If we frame our attitudes around the concept of a "problem" to be "solved", we immediately encumber ourselves with a negative mindset that needs to be overcome before we can start thinking positively. Those who practise applied creativity on a professional basis (designers, architects, town planners and others) would do well to consider that every task constitutes not a problem, but a challenge to their creativity; not a dismal, tedious drain on their emotional and intellectual resources, but an exciting, ever-different inspiration to trump their previous best efforts by generating something even finer than what has gone before.

In order not to leave the picture only half painted, it should of course be stated at this stage that, in addition to its fundamental role as the best possible tool for achieving social inclusion, design is also a very real vector for a broader agenda of social change, including the fight against crime, which can be countered by "designing out" the opportunity for criminal behaviour to take place, as the London-based Design Against Crime Research Centre has illustrated exceptionally well on many occasions: "Socially responsive design is design that responds to social issues and context in pursuit of social change".

Last but by no means least, design is of course also a very vigorous recipe and method for economic stability and development: the true guarantor that underwrites the sustainable business and economic agenda without which no entrepreneur or government can plan successfully to provide optimum goods, environments, services and social climates for consumers and citizens. Quite apart from the many case histories of entrepreneurs who have made undeniably innovative use of design, the number of countries whose governments have made conscious use of design in this respect is growing apace. Suffice for now that I mention the case of Finland by way of example: a country that had the courage to take a long, dispassionate look in the mirror in the early nineties, when its domestic industry lost the privileged market of the Soviet Nomenklatura within the space of a couple of years and had no option but to reappraise its capabilities, its expertise and its potential, doing so to a truly remarkable extent of success and bringing a stable degree of affluence that any visitor to the country can experience directly today. It is no coincidence that the major actors in that process included the top minds in Finland's design community.

Design for All and sustainable development

Design's eminent suitability as a tool for achieving and maintaining the economic sustainability of national and supranational systems introduces the next stage of the discussion about Design for All: its relevance as a fundamental part of the sustainability agenda.

Dating back several decades now, the environmental or green movement has become a stable part of the political scenery in many countries, backed up by active political parties that, in a couple of notable cases, have even taken part in government (the leading example is Joschka Fischer, whose served from 1998 to 2005 as Germany's Foreign Minister and Deputy Chancellor, but Italy also had a green Environment Minister in Alfonso Pecoraro Scanio in 2006-2008). This political reflection on growing social awareness in European society has combined over the years with the economic awareness that the planet really is finite and resource really are destined to become scarce (some already are), plus the looming fear of the climate change that many, though by no means all, experts attribute to the impact of human intervention, leading on the one hand to such political and diplomatic fora as the Kyoto Convention on Climate Control and, on the other, to what is probably destined to be a rather more useful, though inevitably low-key change in human behaviour, which is tending away from the throwaway society and towards recycling. Albeit very, very slowly.

Design certainly has a major role to play in this respect and to a certain extent has already started playing it. Once again making an utter nonsense of the quaintly outdated legalistic thinking behind the text of the European Design Directive, which neither recognises nor provides protection for such advances in design practices, analytical design thinking can be and is applied coherently when many a product is in the gestation stage, in such a way as to make an enormous difference when the time comes for it to be decommissioned,

dismantled and more easily recycled into reusable component elements and materials at the end of its working life.

So strong has been the environmentalism agenda that it has been mistaken by many to be synonymous with sustainability: considering the relative technicality and scarce voter appeal of the second major component of the sustainability agenda, this is really hardly surprising. With the exception of economists themselves, the area of domestic and business economics has never been one to excite the imagination of the masses: while most of us tend to view tree-huggers with the indulgence we reserve for amiable eccentrics, we were unlikely to entertain a similarly affectionate attitude towards the Stock Exchange even before its latest meltdown. And yet the fact that we do not all drive cars fuelled by hydrogen or, even better, by water, is largely attributable to the cost of the necessary technology: although we would all probably express a preference for such clean technologies in an opinion poll, the decisions we make ultimately depend on what we can afford. And clean auto technology is still a very expensive dream as I write.

The moral here is quite simple: environmentalism alone is not enough. In order to be viable (and nothing is sustainable unless it is viable), the environmentally friendly product, location or system must also be affordable: ideally, it should also be substantially cheaper than the polluting alternative, so as to swing the "floating voters" of consumerism in its favour. Otherwise, unfortunately, it is destined to be and remain a dead duck.

Any product designer will tell you that a conventional table needs at least three points of support if it is to be stable (and stability is also a prerequisite of sustainability, along with viability): they may be one leg and two walls, two legs and one wall or simply three legs. In the common metaphor of stable logical argument, the table has three legs, because if it only has two it will topple. And the table of the sustainability agenda is no exception to this metaphorical rule.

I would hazard a guess that every mature consumer living in an advanced consumer society has at some stage in life made the "never again" decision with regard to some brand or other, thus striking an intense body-blow against the concept of customer fidelity. While this reaction may be caused by drastic price rises, it is more likely to derive from a bad user experience, which can ultimately be traced to a design that the user finds to be awkward, illogical, difficult or simply unfriendly. In a word: unusable. By coherently applying the Design for All methodology of user involvement explained above, this hazard can be minimised, because the awkward, illogical, difficult and unfriendly aspects of the user experience should have been ironed out while the product was in the various stages of its design process. Of course it would be infantile to lay claim to miracle-working for any design discipline, so it as well to add a sensible caveat at this stage: once major obstacles have been eliminated by one manufacturer and that entrepreneur has reaped the benefit, market forces will logically persuade others to follow suit rapidly rather than slowly. Which may induce many

entrepreneurs to hang back from what they perceive to be a costly procedure of market testing, in the hope that they will be able to "draw inspiration from" (a nicer way of saying "copy") their competitors at negligible cost to themselves. In the meantime, however, consumer aspirations will have progressed: what was once a minor irritation in the days when so many products were largely unusable will have become a major flaw to the now more pampered consumers, and so the major target for future elimination. The entrepreneur (but also the public administrator, for example: the logic always applies to all decision-makers) who has already established the practice of consultation will always be at an advantage compared to those who hold back and wait.

The moral here is that Design for All is as much and as essential a part of the sustainability agenda as environmentalism and economic affordability. Products, places and services that are produced in environmentally friendly ways and at affordable prices, but that fail to consult their potential users adequately, are condemned to achieve less than maximum impact… which means that they will quite simply not be sustainable. Ultimately, of course, even the greenest and most affordable of products will always be an environmental disaster if nobody uses it… even if it then gets recycled!

At the risk of repeating myself *ad nauseam* (but the topic deserves repetition!), I shall reiterate the fact that there are no bounds to the applications of design in general, for achieving and maintaining a better economy, and of Design for All in

particular for ensuring that the economy in question is fully socially inclusive. To quote the EIDD Stockholm Declaration© once again: "Design for All applies to all fields: the built environment, everyday objects, services, culture and information, everything that is designed and made by people to be used by people must be accessible, convenient for everyone in society to use and responsive to evolving human diversity."

The role of legislation and standards

There is no doubt that legislation and standards have a significant role to play in achieving a more inclusive society. That being said, however, there is a tendency on the part of the legal layman to put excessive trust in the efficacy of legal instruments, as though a new law, on its own, could truly bring about a change in society. While the disability movement is no exception to this tendency, it has a very strong historical motive, based in real experience, that goes a long way towards explaining this trust.

As outlined above, the most important experience that disabled people have had with design in the course of the last five or six decades has been concerned with the gradual improvement of the technical aids that make life easier for certain categories of people, from wheelchairs and hearing aids to reading glasses, voice chips and screen readers. In order to maximum their functionality, practically all of these technical aids have been the subject of more or less extensive study and standardisation, which has had a demonstrably positive effect

on the tangible products available to users. It is therefore hardly surprising that practical experience has taught many disabled people and their organisations to be inclined to put considerable trust in standardisation processes and, as a logical development by analogy, in new legislation, especially in the area of human rights.

But – and this is a rather big but – legislation alone most emphatically does not change the world: although it is of course always dangerous to generalise, it is fair to state that legislation takes place when sufficient socio-political pressures are brought to bear upon the governing classes to make them react to changes that are already taking place in society. So it is society that changes and legislation that often has to struggle to keep up, especially in today's increasingly complex societies. Legislation therefore tends to be reactive, not proactive. Even so, it can fulfil a crucial function: when correctly drafted and interpreted, legislation can and increasingly does provide the equality framework that ensures a level playing field for all. And that is not something to be treated lightly.

But – and once again this is a very big but – this effect must never be taken for granted: society is as unpredictable as individual human beings and there is no guarantee that a law that stipulates X will generate a behaviour that precisely matches X. Indeed, such a development is unlikely in the extreme: we need only consider whether the speed of traffic is moderated by legislation alone, or whether it requires further

inducements, such as speed cameras, to bring about a real change in behaviour. Furthermore, different societies react to identical rules in different ways: while a driver living in Germany is more inclined to observe the strict letter of the law, abiding by the speed limit, in Italy most drivers assume that they have a certain margin of tolerance. This does not mean that Italians are less law-abiding, merely that the cultural matrix developed over centuries advises them (rightly or wrongly) that the state is a dialogue partner with whom one can and should negotiate, while Germans would be more inclined to identify with the state's legislative acts as deriving from themselves through a democratic process, which therefore induces them to respect what is ultimately their own will. The study of these differences between "law in the books" and "law in society" is known as the sociology of law: its function is to dissect and inform about the discrepancies in practice between legislation – the laudable intentions expressed by legislators – on the one hand and what it translates to – its sometimes disconcertingly different effects – in practice. This study and its findings must always be factored into the preparation of all human rights and equality legislation, as well as born in mind when the temptation arises to extend the model of standardisation to fields where it really has no business being at all.

Standards do of course have an important purpose. For example, it is thanks to standards that power plugs fit into sockets. It is standards in ICTs that have made global mobile communications possible: we can now use the same mobile

telephone device from practically anywhere in the world, to call anywhere else in the world, because international telecommunication standards have been harmonised. And of course it is building standards that ensure (or ought to) that buildings do not simply collapse once the property developer has made his profit. So yes, standards are an extremely useful feature of modern technical and technological society.

But – and this is a third rather big but – people are not plugs, mobile phones or buildings: people are diverse. As I explained above, the time when people were classified by predetermined categories is gradually drawing to a close, as in societies with increasingly mature cultures we learn to celebrate the value of diversity, rather than fearing and stigmatising otherness. So we must also draw the logical conclusion that people should not be forced into standardised boxes, merely for the questionable purpose of approximating the people (the users) to preordained design typologies. It is the task of design in the twenty-first century to build on, rather than stifle, the wealth of human diversity: it is the task of design to become Design for All, the design approach that is based on human diversity.

Most of the latest spate of legislation passed around the world to enhance the quality of life for disabled people, from the Americans with Disability Act to a host of laws in Europe and elsewhere and most lately the United Nations Convention on the Rights of Persons with Disabilities, includes a specification for what is termed "reasonable accommodation". In the UN Convention, this is defined as "necessary and appropriate

modification and adjustments *not imposing a disproportionate or undue burden*, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms" (my italics). Quite how the legislator proposes to ensure an "equal basis" in the presence of such a glaring get-out clause is left, presumably, to the courts to decide, at not inconsiderable expense, if previous experience of litigation is anything to go by.

Of course, the costs involved in adapting the world and its artificial environments to the real needs of its inhabitants constitute a very real challenge, particularly in times of economic uncertainty. Following logically on the case I have built up so far, however, I would contend that, just as Rome was not built in a day, so too it is mistaken to suppose that everything can be made accessible overnight by waving the legislator's magic wand, even if limitless funds were available, which of course they are not. So let us proceed rationally, dividing things into two categories: new and existing.

The first is obviously to ensure that nothing new is ever done in future to contradict the spirit of the UN Convention. In this respect, what we really need is not more legislation that provides a body of further building standards, for example, but a corpus of guidelines and best practices to steer the various processes of user consultation and involvement towards cost-efficient methods and practices, then monitor that they are really practised and pursued. If it is factored in at this early

stage, the extra cost involved in product development and construction may be truly minimal and will in any case certainly be recouped amply and repeatedly over the complete lifecycle of the product, building or system in question, because it will be far less likely to generate new and additionally costly exclusions that would in turn call for additional social costs in future. The total cost of an investment must include the entire life-cycle: anything else paints a false picture. By this stage in this essay, I believe it is no longer necessary to stress again the role to be played by design in this process.

The second category is bound to be more complex, both because it requires the investment of considerable resources and because in some circumstances it will clash with other interests. By way of exemplification, I shall restrict my comments here to town planning and architecture, notoriously the most expensive sector (products tend to have shorter lives, so we can always decide to "buy a better one next time"). To be reasonable, no city can afford to overturn all its streets overnight, nor could it find the necessary labour and machinery to do so, even it wanted to. But it is a fact that every city has a regular need to resurface its streets, repave its pavements, install new traffic lights and in short undertake more or less expensive infrastructural maintenance at regular intervals. In larger cities, this is a never-ending process that is more or less well-planned to be completed within a timeframe that will keep the infrastructures in good working order. As a result, the opportunity is already there, waiting to be used: the design challenge is not so much to design better intersections

(although that, too, is a requirement), as to design the plan whereby the city will be upgraded as a whole within the next cycle of infrastructural maintenance.

By upgrading a city in this way, its administration can certainly expect to benefit financially and so, to a certain extent, cover its maintenance costs or even turn a profit. How? A user-friendly city is a nicer place to visit for business or pleasure: each visit increases the area's local GDP, which in turn translates into better tax returns for the city. Local residents benefit too, of course: if they feel more safe and secure, the costs of preventive policing can eventually be reduced, while if they can move around more easily, the local economy will save on the time (and the fuel) wasted sitting in traffic jams. A small business that may need ten vans for its deliveries in a congested city may be able to service its market with only five if traffic flows better because the systems have been designed better and public transport is more accessible to all: the resulting saving makes the business more profitable and so more sustainable, which in turn guarantees continued employment levels.

Naturally, just as a city stands to benefit within a rather short time from this approach, so too does a private business. Instead of just complaining about the cost of eliminating architectural barriers, for example, shopkeepers would do well to remember that every barrier kept translates into lost customers, lost sales and lost profitability. And that, in a

rapidly ageing society, really does not make sound business sense.

In a remarkably short-term perspective, then, instead of the rather tired old legislative draughtsman's compromise get-out clause of "reasonable accommodation" for "special categories" of people, the coherent application of Design for All in practice can make the economic arguments against change practically irrelevant and certainly anachronistic. Even in times of economic crisis: especially in times of economic crisis.

The validity of this approach is gradually being recognised by governments, as well as the private sector. In its Budget Proposal for the 2009 Financial Year, published in September 2008, the Swedish government stated that: "To move from 'Special Interest' to 'Public Interest' is fundamental for a far-sighted approach to accessibility. The concept of Design for All is an example."

Conclusion: how can Design for All change the world?

In summary, Design for All features a series of factors that can make it an essential vector in bringing about social change, so literally "changing the world".

It habitually applies the analytical tools typical of a good design process to achieve a profound understanding of the world as it is today and its potential for change. It then involves <u>all</u> kinds of users in the process of designing a better

world for everyone. Moreover, it focuses on factoring upwards towards an innovative win-win situation for everyone, rather than downwards towards political and legislative lowest common denominators.

Perhaps one of the most critical factors that give Design for All the capacity to change the world is its no-nonsense, practical approach to human diversity as the basic building block of the world as it really is today. While other world-changing philosophies, notably in the area of political theory, have traditionally been based on somewhat unrealistic critical appraisals of the world, predictably faltering when the time has come to build future scenarios on the shifting sands of uncertain theoretical foundations that have grouped individuals into various artificial and ultimately random categories ("nations", "classes", "races" and so on), Design for All accepts and celebrates human diversity for what it is: the true basis of our world, so also the true, unshakeable foundation for changing it for the better.

After word: EIDD – Design for All Europe

Founded in Dublin in 1993 as the European Institute for Design and Disability, EIDD maintained its acronym but changed its name in 2006 to EIDD – Design for All Europe[1] to reflect the core business it had been developing and for which it has been providing an increasingly vigorous framework since the mid-nineties of the last century.

[1] www.designforalleurope.org

At the time of writing, EIDD has national and corporate member organisations in 20 European countries, an increase of five this year, and will add one more within the next month. Since its foundation, assisted by European project funding in the European Commission's third Framework Programme, EIDD has had developed a regular working partnership with the European institutions, maintaining a critical but positive stance. In the process of this partnership, EIDD also became a founder member of the European Disability Forum, where it is always ready to offer its consultancy in any questions related to design in general and Design for All in particular, although it has always preferred not to participate at executive level, since it believes that EDF should be the parliament of Europe's disabled people, not of its service providers.

EIDD constitutes the bridge between the Design for All community and other communities, acting as a pathfinder for establishing innovative new applications of design and of Design for All in many different areas. Firmly convinced that it is EIDD's duty to inform others about what design can do for them, it does not wait to be consulted, but works to persuade a constant stream of new dialogue partners that it has a valuable message to convey. One of the tools used to achieve this is the organisation of major conferences that study and disseminate Design for All in different sectors, often targeting audiences from outside the design community. In recent years, these conferences have focused on Design for All and Higher Education, Royal Academy, Bruxelles (2002), Design for All and

Equality, Dublin Castle (2003), Design for All and Public Transport, Stockholm County Building (2004), Culture for All, German Federal Government Press and Visitor Centre, Berlin (2005), Work for All, Waterford, Ireland (2006) and Tourism for All, Milan Triennale, Italy (2007). Forthcoming conferences include Housing for All, St. Etienne, France (22 November 2008) and Culture for All, Linz European Capital of Culture (May 2009).

Some closing thoughts

According to Eurostat estimates, Latvia is expected to have Europe's highest estimated population decline in the period 2004-2050: a staggering 19.2%. By contributing to generating confidence in the Latvian economy, Design for All can help Latvia keep its younger generations from emigrating and encourage them to have more children.

The two most frequent barriers to an inclusive society are not physical or architectural, but prejudicial responses. They are "It cannot be done" and "It is too expensive". The first is the direct offspring of the "problem" as opposed to the "challenge" approach: while problems generate a sense of hopelessness ("It cannot be done"), challenges generate a sense of creativity ("Let's sweep away our tired old preconceptions and do things differently!"). The second is usually the result of the inability, or unwillingness, to consider the holistic picture of costs, which are often found to be horrendously higher in the long term

when nothing is done than when a relatively small timely investment is made.

By practising selective inclusion (one day women, another day the ethnic minorities, then single-parent families, today also – one might say at last – the registered disabled, in future probably sexual minorities and so on), well-intentioned but blinkered philanthropists (and governments) end up building new social barriers faster than we can demolish them, because there will always be those who fall through the mesh of the separate watertight containers: each selection and each case of positive discrimination builds new barriers for those who are left out. While it is laudable that new approaches consider multiple scenarios such as disabled children, disabled women and disability and the elderly, this is ultimately just a two- or three-way dialogue between boxes, rather than the long-overdue acceptance of the need to start thinking outside the box – and indeed throw the boxes away. It is patently impossible to build a sustainably inclusive society using methods of selective inclusion, because each selective inclusion must by definition exclude somebody.

In 1993, the founder President and now President Emeritus of EIDD, Paul Hogan, coined the phrase "Good design enables, bad design disables"; in 2004, the EIDD Stockholm Declaration© defined Design for All as "design for human diversity, social inclusion and equality" and in 2006, the EIDD Waterford Convention© made a point of insisting on "the vital

importance of a seamless, rather than a sectoral approach to social inclusion".

Design for All is already changing the world of design: it is my sincere hope that it will also have the opportunity it so richly deserves to change the world of the decision-makers.

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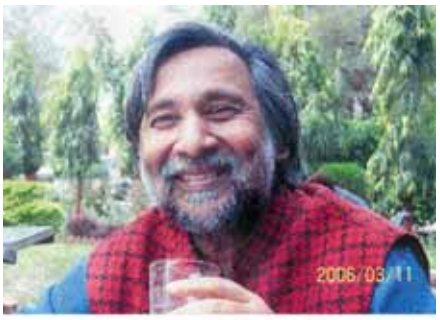

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Prof. Das has wide-ranging deep probing interests in design and man's innate potential to design. He has worked and designed products for the office, home, industry. He has designed for the differently enabled like children with cerebral palsy and others who are orthopedically handicapped. He has also designed educational and research equipment. He has worked with artisans and has conceptualized distant education for artisans under the banner of IGNOU. He is deeply interested in sustainable approach to design and a non parochial non partisan framework for study of design. He has many publications to his credit. He has been engaging in the development of the recently announced National Design

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A Framework for the Study of Design Achievements and Design Possibilities

Prof Lalit Kumar Das

This paper articulates a framework for study of design past and design future that is generalized enough to incorporate the approaches and contribution, of diverse cultures, in different periods of time and geographical settings. The framework can embody all types of man made products. This is achieved firstly by looking at the development of design as a structural activity. Firstly, we look at design development being facilitated by developments in energy, materials, structures, machines, control systems, and systems. One such layer of resources creates the foundation for the development another layer of design development. Secondly we look at design in an epistemic framework. In the epistemic approach, both design and thinking is seen as a relational activity and the nature of relationship in the thinking style determining the nature of design. Development of metaphoric thinking, rational thinking, empiricism, and system thinking; are shown as determining the nature of design development. Thirdly, we take up the meta-theoretical approach of man's worldview. In this, design contributions are mapped in hedonistic – ascetic continuum on one axis and technological – emotional continuum as the other axis. Such a classification is seen, to be able to incorporate the diversity of human creativity. This framework for looking at design creativity is likely to be useful in meeting the challenges of creating an inclusive society and handling the lurking

anthropocene crisis. The framework is motivated by the need to be non-parochial, non-partisan in handling diversity.

Keywords: ***Mapping Diversity, Design History, Cascadian Growth, Design Thinking***

Contemporary design history at best dates back to the Renaissance period and the development of modern design thought is even more recent, at best a century and a half, culminating in the Journal of Design that was first published in 1849. The journal of Design History began its publication in 1988. Many books were published on design history in between but all these were limited in scope and confined themselves to design movements between these two landmark events and to developments in North America and Western Europe. Design research papers in various history journals, centers around analysis within a limited time domain of a decade, a quarter or at best a century.

John Heskett (1987) in his contribution on Design History emphasises the need for industrial design history that would embrace other countries by reformulating our understanding of the word industrialisation to include the craft and vernacular tradition. He emphasises that we view industrialisation as a system for mass production of utility item and as a source of design concepts and forms, often known as type forms, which

have become firmly established due to their appropriateness, and widely adopted to industrial mass production.

Such a change of perspective will make contemporary design education in Africa, Asia, East Europe, Russia, South America, Middle East more relevant to its past. It will enable integration of its vast craft population into the design mainstream and will open up avenue for their growth and participation in development of their nations. This will also enable emergence of national styles and industrial designers will be able to have greater impact on the development of their countries.

The effort in this paper to develop a broad enough framework for study of design past that is generalised enough to recognise the approach and contribution of all cultures, in all periods of time, and in all geographical settings and be able to handle future possibilities. It is expected to cover all types of man made products. This is proposed by developing a model for delineating the differences in design development at different periods of time in different regions, based on parameters that are culturally generic in nature.

Materials, components, machines, control systems, processes form the basic raw material with which all elements of the man made world are designed and developed. How these are brought into a coherent whole is determined by firstly our styles of thinking as dominantly prevalent in any society or culture or in the training of the people engaged in the act of designing. These we call epistemic styles of thinking. These are

further moderated by our understanding of cultural self and environment / whether the creation is for short term usage or long term usage. The relationship is illustrated in Fig. 1.

Fig. 1 Our thinking shapes the world

These parameters are essentially characteristics and structure of engineering, cultures, and human thinking. We discuss each one by one.

Parameter 1: The Building Blocks of Man Made World

Men lacking in omnipotence cannot create out of nothing. Therefore operates by bringing together already existing elements into a new and distinctive relationship to each other and thereby creating a resource that is new and often propels a new matrix of growth. (Das L.K. 1977) developed at length the importance of energy, materials, structures, process, machines and control systems as elements of the matrix of physical realisability of man made environment. To this we would like to add energy and material as the other elements to form a more complete matrix for new developments in the man made environment. While existence of these is necessary condition for the coming into being of new products, it is not a sufficient

condition. A need and an associated product must continue to prevail for development in each of these elements to impact development of the product itself.

Having an idea together with the resources is not enough. What is also needed is a large number of people desiring, wanting, and working for it simultaneously.

Persistence of a need, for a sufficiently long period of time is a prerequisite to evolutionary change even in the man made world. New forms of energy and associated supply sources have created opportunities that have influenced the design and development of new product and services. Transportation was always an important need. Vehicle was a fundamental product to fulfil the need. A need that was shared by large masses of people. Transport vehicle evolved because of development in energy sources.

- **Manually driven wheeled carts**
- **Horse driven wheeled chariots and carts**
- **Buoyant hot air balloons**
- **Steam powered railroad locomotive**
- **Gasoline-engine automobile**
- **Zeppelin air ship**
- **Motor-driven airplane**
- **Petrol fired jet aircraft**
- **Electric vehicles**
- **Nuclear powered submarines**
- **Hydrogen powered space flight**

Our ability to pack and deliver more energy has brought about phenomenal changes in the speed of travel and the distance travelled.

Consider another fundamental product. The wheel, without it there would be a no carts, no carriages, no bicycles, and no cars, not even aero plane that fly in the air. The development of wheels was prompted by development in materials, new structural understanding, process of manufacturing and development in control systems to manage high speeds and heavy load.

- **Oldest wheels were wooden disks consisting of three carved planks clamped together by transverse struts. (structural development)**

- **Spoke wheels appeared about 2000 BC, when they were in use on chariots in Asia Minor. (structural development)**

- **Later developments included iron hubs (centrepieces) turning on greased axles, and the introduction of a tire in the form of an iron ring that was expanded by heat and dropped over the rim and the ring on cooling shrank and drew the members tightly together. (process development, structural development)**

- **Metal spokes wheels (material development, structural development)**

- **Solid rubber tires (material development)**
- **Pneumatic tires (material development, structural development)**
- **Nylon and steel reinforced tires (material development, structural development)**
- **Alloy Wheels (material development, structural development)**
- **Composite wheels (material development, structural development)**
- **Wheel balancing systems (control system developments)**
- **Online tire pressure and temperature monitoring systems (control system developments)**

Similarly developments in steering system, engine, breaking system, suspensions, seating, safety aids, method of manufacturing, method of presenting details of components for manufacture influenced the style and performance of the automobile.

While the modeling of the human form in stone was as good in ancient Greece as it is now. The form of the car could only evolve with advancements in the matrix of energy, material,

structures, process, and control systems. This of course was facilitated by the ever-increasing demand for the automobile and a large group of contenders vying to fulfill this need for commercial gains.

Parameter 2: Epistemic styles of thinking and its relationship with design

In the epistimic approach, we view both design and thinking, as a relational activity and the nature of relationship in the associated thinking style, determining the nature of design development.

When we look at thinking we find that the underlying thread in all aspects of thinking is the process of looking for relationship and development of relationship between thoughts. Thoughts are the atoms and molecules of the thinking process. Thoughts combine to create new thoughts. Thought combine on the basis of the properties they carry with them Thoughts have affinity for combining or not combining, of forming stable or unstable relationship. Right thinking and wrong thinking are only in the context of whether the relationship derived is right or wrong. A thought structure being right, essentially implies that it is stable in some context. The thought is then right in that context. The cultural world of reality is also seen as a thought. A thought is right if it is stable in this context of reality.

Two things are most important to the thinking process. The first is the properties or characteristics of a thought; the other is the relationship between thoughts.

In the Middlesex University resource provided by Andrew Roberts 'ABC of thinking'[2] , he lists words used to think about thinking which are reproduced below. Reflection shows that a concern with evoking, understanding and establishing relationship is at the core of these words.

Abstract, Analogy, Analysis, Axioms, Conceive, Concept, Critical, Deduction, Dialogue, Dogma, Empirical, Empirical Research, Explanation, Explanandum, Explans, Falsification, Flow, Generating ideas, Geometry, Hypothesis, Ideas, Imagination, Impressions, Induction, Library Research, Logic, Metaphor, Metaphysics, Metatheories, Paradigms, Positivism, Proof, Proposition, Rationalists, Rationally, Reason, Reasoning , Reflection, Research, Review, Sceptic, Scepticism, Semantics, Semiotics, Sequential, Symbol, Testable theory, Theory, Theory structure, Theory types, Verification.

Similarly in the context of designing we seek to develop relationship between the elements that go into making a design. A design is a system. It consists of a set of elements. Each element has certain properties and propensities. The elements combine together on the basis of these properties and propensities, to create a larger whole with a new meaning or purpose.

2 http://studymore.org.uk/glothi.htm

In the world of nature a similar pattern is seen.

- **Properties or characteristics of elements / components**
- **Relationship between the properties or characteristics of elements / components**
- **There are properties / characteristics that create relationships and also exclude relationships.**

In different professions and disciplines we specialise in characteristics ways of working with relationships and discovering new knowledge, processes and methods within disciplines. Cohen and Schnelle (1986). quotes Ludwik Fleck[3] , a Polish philosopher of the nineteenth century.

"To my mind epistemology must result from three basic phenomena. The first is the collective mental differentiation of men: people exist who can communicate with each other, i.e., who think somehow similarly, belong, so to say, to the same thought-group, and people exist who are completely unable to understand each other and communicate with each other, as if the belong to different thought-groups (thought-collectives). Scientist, philologist, theologian, or cabbalist can perfectly communicate with each other within the limits of their collectives, but the communication between a physicist and a philologist is difficult, between a physicist and a theologian

3 http://www.fmag.unict.it/~polphil/Polphil/Fleck/FleckKey1.html

very difficult, and between a physicist and a cabbalist or mystic impossible. The subject of conversation does not play a decisive role, because on an apparently identical subject, e.g., a certain disease or celestial phenomenon, a physicist will understand a biologist, but will be unable to come to an understanding with a theologian, or a gnostic. They will talk next to one another: they belong to a different thought-collectives, they have other thought-styles. What, for one of them, is important, even essential, is for another a side issue, not worth discussing. What is obvious for one, is nonsensical for the other. What is truth (or 'lofty truth') for one of them, is a 'base invention' (or naive illusion) of another. Even after a few sentences, there appears to be a specific feeling of strangeness, which signals the interlocutor, which proves an affiliation with the identical thought-collective."

Ludwik Fleck gave a sociological dimension to epistemology. This can extend to the cultural dimension when relationship processors become thought and lifestyle leaders within a culture.

Thus the style of thinking differentiates people. People with a common and complementary style of thinking creates a collective, a so-called professional group. The style of thinking also determines of nature of product that this group of people produces.

For the purpose of this study I would like the reader to consider the following four styles of thinking, viz. metaphoric thinking, rational thinking, empiricism, and system thinking and reflect its relationship with cultural development The first three of these epistemic were discussed by Kearsley (1976).

1. Metaphorism ensures continuity through similarity and synonymity of different levels, components and structures and thus lends character and identity to the system. It introduces plasticity in thinking and brings about condensation, symbolization, displacement, neologism.

2. Rationalism leads to knowledge structures that are consistent and coherent. It helps divide and distinguish and as such stimulate questions.

3. Empiricism ensures that there is compatibility between the knowledge system and the perceptually verifiable systems. It ensures design operation ability and physical realisability.

4. Systems thinking enables us to take into account larger and larger numbers of interactions as a unified activity. This results in sometimes strikingly different conclusions than those generated by traditional forms of analysis, especially when what is being studied is dynamically complex or has a great deal of feedback from other sources, internal or external. System thinking ensures that the focus is always on the goals / purpose of the system. The behaviour is studied with reference to the behaviour of the element that constitutes the system

and can often work in different ways to ensure the stability of the system.

Each of these styles of thinking has produced its characteristic cultural groups with its characteristic product compositions.

While all styles of thinking were prevailing at all times, there seems to be a preponderance of one style over others in certain periods. This seems to be determined by the need of any society to take the next step towards advancement and stability. Also at any time there are always forces that will like status quo to remain. These forces will come in the way of thinkers / opportunity providers who are providing the algorithms for change.

In history of design, we will like to consider all products created by people. These may be concepts, theories, scriptures, poetry, novels, plays, films, theorems, products, artefacts, devices, and machines. Processes, control systems, etc. Development in one class of design items in one geographical area has affected another class of designed items in another area and so on and so forth.

HyperHistory Online journeys through 3 000 years of world history with links to important persons of world historical importance. Table 1 of historically important thinkers / opportunity creators is developed on the basis of people's index[4].

4 http://www.hyperhistory.com/online_n2/History_n2/people.html

On a timeline one sees a preponderance of metaphoric thinkers to begin with, followed by rational thinkers and subsequently empirical thinkers.

This is illustrated in Table 1.

AMOS	Hebrew Prophet	c.802 - c.745 BC	Metamorphic	'Justice for all human beings'
HOMER	Greek Poet	c.850 BC ?	Metamorphic	'The many separate Greek states were united by the Homeric epics ' the 'Iliad'
ZOROASTER	Persian Prophet	c.630 - c.550 BC	Metamorphic	Dualism 'Man has the power to choose between good and evil.
LAO-TZE	Chinese Philosopher	c.604 - c.521 BC	Metamorphic	'Man, be like the universe, which endures because it does not live for itself
JINA	Prophet in India	c.580 - c.527 BC	Metamorphic	'Abstinence from violence and contentment
BUDDHA	Prophet in India	c.560 - c.477 BC	Metamorphic	'Universal path to salvation
PYTHAGORAS	Greek Philosopher	c.575 - c.500 BC	Rational	'The world was to be discovered with the aid of mathematics, geometry
CONFUCIUS	Chinese Philosopher	c.551- 479 BC	Rational	'Sought to provide sound rules for every occasion in life
ANAXAGORAS	Philosopher Scientist	c.501 - 428 BC	Rational	'Spirit of scientific inquiry while accepting a cosmic mind
SOCRATES	Greek Philosopher	469 - 399 BC	Rational	'Mastery of the rules of logic, correct methodology of argument
PLATO	Greek Philosopher	427 - 348 BC	Rational	'Theory of Ideas; mathematics, the world of being and the world of becoming.
ARISTOTLE	Greek Philosopher	384 - 322 BC	Rational	Established basis of formal logic, classification of field of knowledge
EUCLID	Greek Mathematician	c.365 - c.280 BC	Rational	The Elements', a collection of geometrical theorems
ARCHIMEDES	Greek Scientist	c.284 - 212 BC	Emperist	Inventor mathematician
CHANG-CHIEN	Chinese Discoverer	c.172 - 114 BC	Emperist	Traveller, explorer, ambassador, brought horses and new plants to china
HERON	Greek Mechanician	c.152 - c.82 BC	Emperist	Scientist, inventor, engineer
HORACE	Roman Poet	65 B.C. - 8 B.C.	Metamorphic	Poet
VITRUVIUS	Roman Architect	1st century BC	Rational	De architectura'. Planner architect engineer
JESUS	Spritual Prophet	c.6 BC - c. A.D. 30	Metamorphic	Spiritual preacher, wisdom from the mundane
WANG-CHUNG	Chinese Philosopher	26 – 99	Emperist	He insisted that any theory must be supported evidence and experimental proof
HUA TO	Physician Scientist	c.190 - c.265	Emperist	Successfully invented surgery
BHASA	Indian Playwright	c.275 - c.335	Metamorphic	Poet
KALIDASA	Indian Poet	c.353 – 420	Metamorphic	Poet
SUSRUTA	Indian Physician	c.380 - c.450	Rational	Advocated sterilisation of wound, developed plastic surgery
TSU CH'UNG CHI	Chinese Mathematician	c.430 - c.501	Rational	Astronomer, calculated the value of pi and time of the solstice
ARYABATTA	Indian Astronomer	c.476 - c.535	Rational	Mathematician of repute, discovered rotation of earth
Alexander of Tralles	Byzantine Physician	c. 525 - c.605	Emperist	Twelve Books on Medicine, a major work on pathology and therapy,
MOHAMMED	Prophet	c.570 – 632	Metamorphic	Religious teacher
BANA	Indian Poet	c.595 - c.655	Metamorphic	Poet biographer
BRAHMAGUPTA	Indian Mathematician	598 – 660	Rational	Mathematician astronomer
HUAN-TSANG	Chinese Traveller	602 – 664	Emperist	Traveller monk writer
TAO-YUE	Chinese Inventor	c.608 - c.676	Emperist	Empiricist 'Inventor of white porcelain
AL-KARISMI	Arab Mathematician	c.778 - c.850	Rational	Rationalist 'Brought algebra and decimal system into European mathematics.
ABU KASIM	Arab Surgeon	936 – 1013	Emperist	Father of Modern Surgery'.
LEIF ERICSSON	Icelandic Mariner	c.961 - c.1021	Emperist	Norseman to seek out the coast of North America.
AL-HASSAN	Arab Optician	965 - 1039	Emperist	First to recognise the optical nerve in the human eye.
BHASKARA	Indian Mathematician	c.1114 - c.1185	Rational	Leading mathematician development of algebra decimal system and trigonometry
AL IDRISI	Arab Geographer	c.1096 – 1166	Emperist	Geographer published an atlas with 71 maps
ROGER BACON	English Philosopher	c.1214 - c.1292	Rational	Forerunner of modern experimental science finally imprisoned for his thinking
MARCO POLO	Italian Traveller	1254 - 1324	Emperist	Travels of Marco Polo' - fired the imagination of all Medieval Europe.
IBN BATTUTA	Moorish Traveller	1304 - 1377	Emperist	Travel book 'Rihlah', covering China, Sumatra, Ceylon, Arabia, Syria, Egypt, East Africa
CHENG-HO	Chinese Admiral	c.1371 - c.1433	Emperist	Several famous naval expedition visited south east asia, arabia egypt, no conquest
GUTENBERG	German Printer	c.1400 - 1468	Emperist	The inventor of moveable-type mechanical printing in Europe.
COLUMBUS	Italian Navigator	1452 - 1506	Emperist	Sought a westward route to Asia, but found America instead
Leonardo da Vinci	Italian Genius	1452 – 1519	Emperist	All round genius, greatest of artists and the greatest experimental scientist of his age
Johannes Kepler	German Astronomer	1571 – 1630	Rational	Explanation for planetary orbits and he discovered that the orbits are elliptical
Galilei Galileo	Italian Astronomer	1564 – 1642	Emperist	Founder of modern science, improved the refracting telescope, explored the solar system
Michelangelo	Italian Sculptor	1475 – 1564	Emperist	Michelangelo was a visionary painter, and a supreme sculptor
Shakespeare	English Playwright	1564- 1616	Metamorphic	Extraordinary writer explored the complexity of the human soul with unparalleled insight
Sir Francis Bacon	English Philosopher	1561 – 1626	Rational	Established inductive reasoning wrote 'Novum Organum' & 'The Advancement of Learning
Rene Descartes	French Philosopher	1596 - 1650	Rational	Formulated a rational scheme of knowledge in his work 'Meditations on First Philosophy'.
Sir Isaac Newton	English Scientist	1642 – 1727	Rational	Developed calculus. Developed the laws of forces Invented the reflecting telescope
Immanuel Kant	German Philosopher	1724 – 1804	Rational	Attempted to reconcile the conflict between rationalism and empiricism
James Watt	Scottish Engineer	1736 – 1819	Emperist	Invented the steam engine and associated components
Wolfgang Mozart	Austrian Composer	1756 – 1791	Emperist	Prolific composer writing masterpieces in every branch of music
G. W. F. Hegel	German Philosopher	1770 – 1831	Rational	Influenced the development of Existentialism and Marxism
Charles Darwin	English Naturalist	1809 - 1882	Emperist	Postulated that natural selection was instrumental during evolution.
Tolstoy	Russian Novelist	1828 – 1910	Emperist	World's great writers. Important moral thinker and reformer.
Thomas Edison	American Inventor	1847 – 1931	Emperist	Greatest of inventors. Organised teamwork in systematic research
Niels Bohr	Danish Physicist	1885 – 1962	Emperist	Bohr's theory of the atomic structure & orbits
Sigmund Freud	Austrian Psychologist	1856 – 1939	Metamorphic	Dreams are disguised manifestations of repressed sexual wishes
Albert Einstein	German Physicist	1879 – 1955	Rational	Most creative scientists in human history. Theory of relativity
Max Planck	German Physicist	1858 - 1947	Rational	Laid foundation of quantum theory
Bertrand Russell	English Philosopher	1872 – 1970	Rational	"Principia Mathematica" Pure mathematics follows from premises that are strictly logical
Pablo Picasso	Spanish painter	1881 - 1973	Metamorphic	Most prodigious and revolutionary artists in the history of Western painting
Jean-Paul Sartre	French Philosopher	1905 - 1980	Metamorphic	Philosophy of existentialism, free will to bring meaning to ones life

Table 1: Thought leaders from 800 BC to 1900 AD and their characteristics thinking style

Metaphoric Thinking

They worked with feelings and emotions and constructed and related things on the basis of feelings and emotions. Organ, organiser, organisation, orgasm, may be different products altogether yet they are related together at the level of 'feeling expectations' that are associated with each other.

Metaphors are the basis of thinking itself. Without it relationship cannot be established. Rational thinking is only a subset of metaphoric thinking. Here, only certain types of relationship have been permitted. Study of dictionary and origin of words itself can give important insights into the study of design history.

Some of the important concepts that thinkers have striven to establish, as important metaphors, are the following. Without the establishment of these metaphors the present day, modern development, would not have been possible. It is our understanding that these concepts are central to the concept of the development of any complex organisation or evolved civilisation.

Oneness of clan
Oneness of citizens of a city / nation
Oneness of mankind
Oneness of all sentient beings
Oneness of consciousness
'I – thou' relationship and vice versa

'I – It' relationship and vice versa
'Is and is not' relationship
'Are and are not' relationship
Oneness because of feeling.

Two things are similar because they generate or lead to the same feelings / emotions.

Concept of vision, visionary, seeing, seer, derive their value and justification from the contribution made by the above concepts of oneness.

Metaphoric thinking is also used extensively by saints, poets, playwrights, novelist, inventors and scientist, advertisers, and statesmen when they are toying with new concepts or laying out the foundations for new directions in ideology and human action.

Metaphoric thinking is most primordial. Metaphoric thinking becomes increasingly important when a new paradigm appears. Later it gives way to rational approaches. Information Technology is a good example, which extensively explores metaphors to find new ways of using information technology.

Bible, Gita, Koran, Lotus Sutra, Upanishad[5] are all designs that extensively use metaphors for its dialogues. Similarly tools, spears, traps, baskets, bins, reservoirs, dams, cave paintings,

5 Sacred religious books

images of mother goddess, gods, use metaphors and analogies for their conceptual feasibility.

Rational Thinking

When the foundation of oneness as enunciated by different seers had been established, civilisation could grow into larger conglomerates. Some common rules of day to day interaction, trade and treaties become essential. This gave impetus to the concerted development of rational thinking. Rational thinking involves imposition of certain rules, which now guide the thinking process. At the meta-theoretic level, many of these rules were imposed from the enunciation of the saints and prophets of 700 to 400 BC. These had to be supplemented by rules to take care of equity in physical transactions. Rational thinkers started flowering from 600 BC to 200 BC. A second impetus comes during the 1600 AD onwards.

Rational thinking has played a very important role in the development of civilised behaviour and interaction especially in the context of material transaction, property ownership, business organisations, development of judiciary, etc.

Algebra, arithmetic, geometry, land survey, development of currency, calendar, astronomical tables, categories of family relationship, etc. could not possibly come about without the development of rational thinking

Realising how feelings and emotions can lead to wrong conclusions, these thinkers developed methodology of logical and rational thinking and the use of the same to arrive at reliable knowledge and truth that can be trusted.

What is the nature of sameness?
What is the nature of differences?
Under what circumstances same things become different
Under what circumstances different things become same
How to ascertain the cause effect relationship
What is the methodology of conducting / ascertaining correct thinking / conclusion

Deductive and inductive reasoning are two very important developments. Arguments can be put into these two categories

A deductive argument is one in which it is claimed that it is impossible for the premises to be true but the conclusion false. Thus, the conclusion follows necessarily from the premises and inferences.

An inductive argument is one in which the premises are supposed to support the conclusion in such a way that if the premises are true, it is improbable that the conclusion would be false. Thus, the conclusion follows probably from the premises and inferences.

Inductive argument provides us, with new ideas and thus may expand our knowledge about the world in a way that is

impossible for deductive arguments to achieve. Thus, while deductive arguments may be used most often with mathematics, most other fields of research make extensive use of inductive arguments.

Empiric Thinking

Empiricism is at apex of design materialisation, because what is designed must exist in a space and time. Empiricism as a scientific method opened new methods of exploring and learning about the physical world of materials and structures. New insights into the functioning of the physical and biological reality were developed. Greater confidence in the functioning of the world, catalysed the new age of inventions.

In metaphorism we were seeking relationship at the abstract level, in empiricism we are seeking relationship at the physical level of existence. In rationalism we were ensuring that we had a body of knowledge structures, which is consistent. And the relationship holds in all space and time. At least this was the ideal expectation.

Each culture at different periods of time has had different approaches to empiricism.

Western empiricism was built on the idea of a mechanistic universe; the universe both physically and socially was eventually conceived of as a vast machine whose principles of operation could be grasped by the human intellect without

recourse to divine or superstitious explanations. Correspondingly, each aspect of the universe operated in a different manner: the machine of physical phenomena operated differently from the machine of social phenomena.

In Indian thought empiricism took a different manifestation as in Buddhism and Tantra.

89-90. "Second-hand knowledge of the Self gathered from books or gurus can never emancipate a man until its truth is rightly investigated and applied to himself; direct Realisation alone will do that. Therefore, follow my advice and realise yourself, turning the mind inward" - Tripura Rahasya[6] .

The emphasis was always on emancipation of man and had profound effect on the construction of man product relationship, which was quite different from those in other cultures.

The three most important building blocks of empiricism were

- **Relying on or derived from observation or experiment**
- **Verifiable or provable by means of observation or experiment**
- **Guided by practical experience and not theory.**

6 Tripura Rahasya Chapter 18, http://www.astrojyoti.com/tripurarahasya4.htm

System Thinking

At the core of system thinking was the search for elements that constitutes the underlying thread in different things. The early attempts in this direction where Zhu Xi[7] or Chu Hsi, an eminent thinker second only to Confucius. Zhu Xi represented, all objects in nature as composed of two inherent forces: li, an immaterial universal principle or law; and ch'i, the substance of which all material things are made. Whereas ch'i may change and dissolve, li, the underlying law of the myriad things, remains constant and indestructible. Zhu Xi further identifies the li in humankind with human nature, which is essentially the same for all people.

The concepts of Yin and Yang and the Five Agents provided the intellectual framework of much of Chinese scientific thinking especially in fields like biology and medicine The organs of the body were seen to be interrelated in the same sorts of ways as other natural phenomena, and best understood by looking for correlation and correspondences. Illness was seen as a disturbance in the balance of Yin and Yang or the Five Agents caused by emotions, heat or cold, or other influences. Therapy thus depended on accurate diagnosis of the source of the imbalance.

Similar schemes like concept of 'shiv shakti' as the underlying principle in all phenomena especially living systems, vastu purusha in architecture, tridosha in the Indian medicine system

7 http://en.wikipedia.org/wiki/Zhu_Xi

of ayurveda become the building blocks for synthesis of system of knowledge and practise.

The twentieth century saw the developments in this direction. Ludwig Von Bertalanffy (http://www.isss.org/quotelvb.htm) laid the foundation of General System Theory and System thinking. Before this there was no way to think about a complex world? The approach to break the complex world into smaller, more manageable pieces. The argument that if we can understand the separate pieces, then we can put our separate understandings together to understand the whole. This is reductionism, or Cartesian (after René Descartes) thinking. It works for simple things. Cartesian thinking fails to address complex problems because, in the process of breaking up the overall concern into parts, the connections and interactions between those parts get lost. The idea of the whole as more than the sum of its parts was as old as Aristotle.

System dynamics has evolved into a methodology for studying and managing complex feedback systems, such as one finds in business, public infrastructure and in a limited way to social systems.

Arthur Iberall[8] and many of his colleagues have developed study of complex systems. It goes by many names. A few common ones in use today are: The Science of Complex Systems, General Systems Science, The Science of Self-Organising Systems, Unified Science, and so on.

8 http://www.trincoll.edu/depts/ecopsyc/homeokinetics/background/iberall.html

Christopher Alexander's[9] work entitled The Nature of Order is another interesting work towards understanding wholeness. Developments in Fractal geometry, object oriented programming, Java applets, parallelism, generative designing are other important developments in the direction of system thinking but many be applicable to closed system.

New ways of thinking

The above developments are already giving way to new ways of thinking which will lead to a new category of products, system services and environment. New metaphors will become active which will regroup the world into new categories. New axioms will be identified which will lead to evolution in rational thinking. Nature of empiricism will change because of exploration of new realm of reality and greater concerns with the viability and self generated evolution of complex systems.

Parameter 3: Viewpoints of Life & Nature

We have discussed that styles of thinking moulds the nature of design. We have also seen how developments in energy, material, structures, machines and control systems become the building blocks of design at the physical level. We would now explore another parameter, viz. Human beings understanding

9 Alexander Christopher, The Nature of Order, http://www.natureoforder.com/overview.htm

of nature itself, how it has come about, how it exists and what is mans relationship with nature.

There are basically two extreme philosophical viewpoints of nature and it would be sufficient to restrict our self to these, to paint an introductory picture.

The first philosophical viewpoint toward nature is that of the Indian tradition. We see it in its extreme in Jain doctrine of 'Ahimsa parmo Dharma', which n means ot to kill is the ultimate teaching. It assumes that nature is complete in wisdom, knowledge and action and it requires no further up gradation. It is enough that we do not kill, hurt or harm. The Hindu's also believe that Brahman is self contained and complete. It is man who is incomplete and can become complete not by tinkering with nature but by merging with it. The Jain view is the extreme of ascetism. In this viewpoint from the design viewpoint 'less is more'

The second is western mechanistic view of nature, it stems from ancient Greek science as well as from the Bible in which God made man out of clay and breathed life into him. In this viewpoint everything is made and can be made, in the same way as God created man out of clay. Descartes summed up the modern spirit well when he said that the goal of its devotees was to become nothing less than "the masters and possessors of nature." This viewpoint has also led to amazing discoveries and an amazingly new way of living. This way of living has become a justification of the viewpoint itself. It has also led to

traumatic environmental degradation. It has encouraged a hedonistic approach to life. It is an approach that is pro-mankind but perhaps only in the immediate present. From the Design viewpoint 'more is less'.

While these viewpoints may have evolved in different regions, may have a religio-cultural origin, nevertheless there were subscribers to them in different measures in all places. In Europe itself different countries as a consequence of their historical evolution subscribe to different mixes of these viewpoints. This is reflected in country specific design styles and concerns.

The above viewpoints are crucial to the design solution space as they govern the attitude towards design. One axis of design solution space is provided by the two orientations toward the body and the senses: the ascetic and the hedonistic.

There is no need to attach value judgement to the ascetic or hedonistic philosophy. Because there is none for a detached observer. Both are inherent in human biology and human psychology and have played an equally important role to human survival and development. Hedonist operates in the shorter time frame, the ascetic in the longer time frame. The hedonist is concerned with the immediate environment and this environment is for its immediate gratification. The ascetic is concerned with the larger environment and this environment exists in its own right and is much bigger, better and important than man himself.. The ascetic would like to live in tune with

this environment. The environment is the bigger and better player. Human race would not have survived if either of them were not there.

The Design Solution Space

Hedonist & ascetic attitude, though two extremes, they together provide a vast solution space for design creativity. In any design creation there is a measure of both.

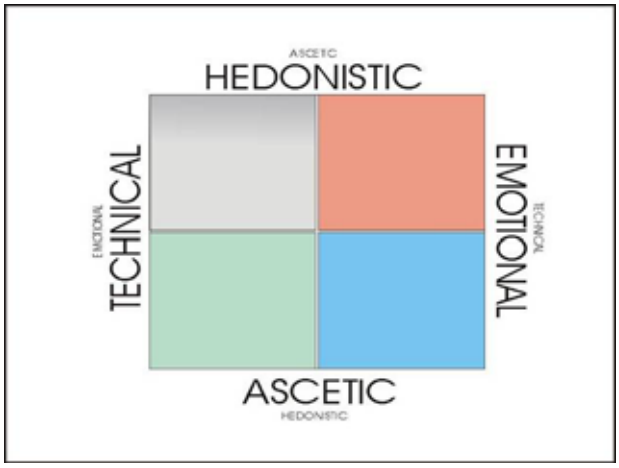

Fig. 2 The space matrix of design

The two sides of the human brain, the logical and the emotional provide the other axis of the solution space. This may be termed as the technical and the emotional. Mathematics, physics, chemistry, technology, engineering, modern medicine emerges from the rational and empiric thinking. Emotional creativity encompasses poetry, art, music, dance, etc. Architecture and industrial design would lie some where in between.

We try to map the systems of healing that have evolved over millenniums in different continents on such a solution space.

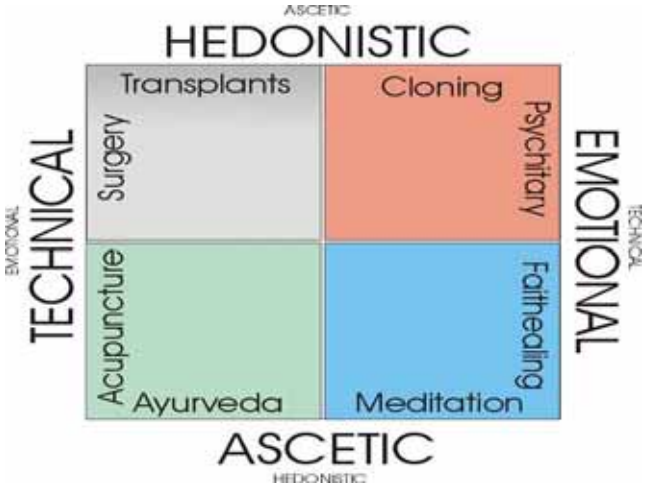

Figure 3: Mapping the different systems of healing

Similarly one could map other ways of fulfilling similar tasks. With equal ease different product design solutions can be mapped. In Figure 2 we map different dresses. A gladiators suit is classified as hedonistic; this product has also a strong emotional bias.

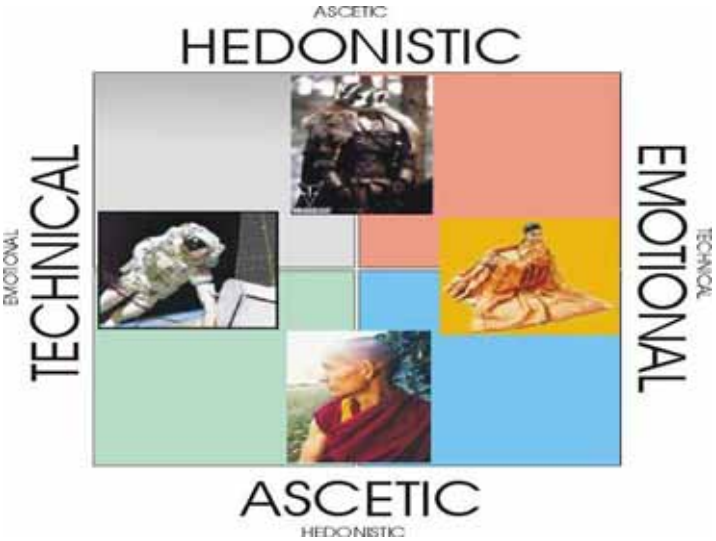

Fig. 4: Mapping different types of clothing

A saree is an emotional design inclined towards ascetic

The ascetic monks prefer unstiched clothing thereby minimising use of resources

The space suit is 100% technical solution to a need.

It would be useful to map more product images in this solution space, carefully reflecting the position in the appropriate quadrant.

Lets now map different seating systems. This is shown in Figure 5.

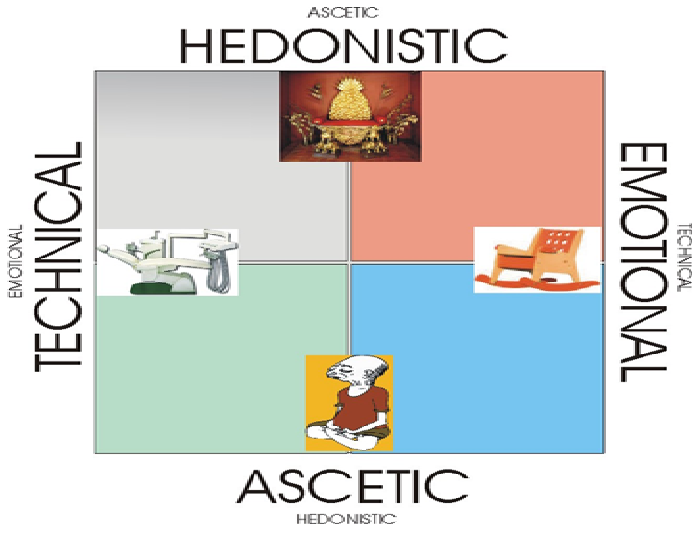

Figure 5. Mapping the different systems of seating

A throne has been classified as hedonistic because of its pompous, authoritarian nature

A dentist chair is a technical solution to need.

Sitting cross-legged on the floor requires no additional resource and so merits an ascetic classification.

A child's rocking chair caters to emotional needs.

Lets now try to map products for lighting in our framework.

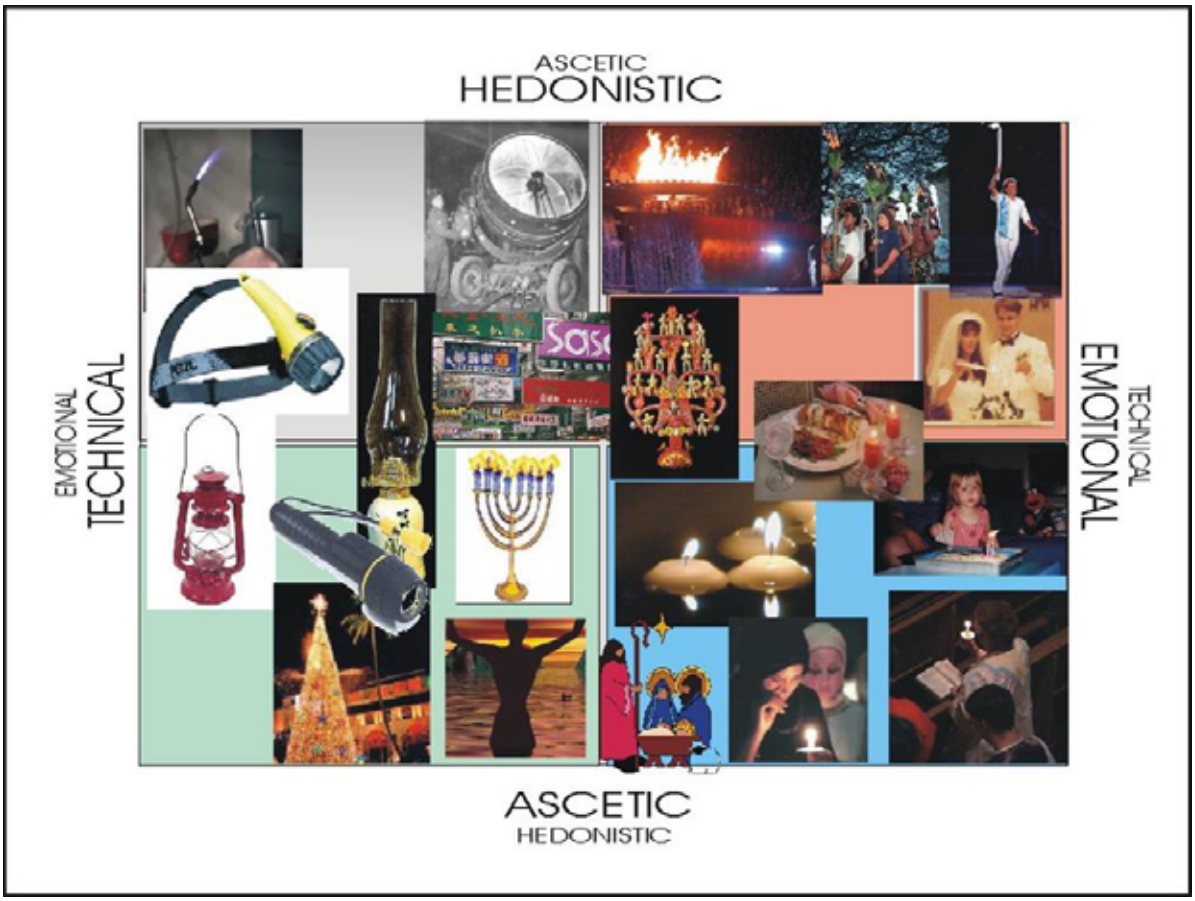

Fig. 6 Mapping different lighting systems and its position in our life

It is interesting to see not only the position of products in our diagram. We can also map the movement of the product in the

diagram over a period of time. Lantern which may be a very technical solution at one time may acquire more emotional content as time goes on.

In reality any product has something of all the four characteristics but there is always a dominance of one or two characteristic. Obviously this classification may seem simplistic but it is very powerful because of its generalised nature

Conclusions

The framework articulated is broad based and generic. It is applicable to a diversity of culture and a variety of products. Its true potential can be fathomed either through broad-based reflection or extensive application on a whole range of products from diverse cultures and different periods of time. The suggested ways of looking at history will enable a student to grow epistimically, technically and attitudinally. It is a framework, which will facilitate the growth of design education and bring forth the collaborative nature of human civilisation.

Acknowledgement

The author acknowledges with gratitude, the privilege to use the photographs in this paper to illustrate various concepts in Figure 4 to 6. They were freely borrowed from the world wide web, the copyright of these images resides with their owners.

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EIDD - DESIGN FOR ALL EUROPE

ENHANCING THE QUALITY OF LIFE THROUGH DESIGN FOR ALL

Finn Petrén, President, EIDD - Design for All Europe

Finn Petrén has a M.A. in philosophy and sociology from the University of Stockholm 1970. For almost three decades, 1977-2004, he worked for the Nordic Council of Ministers, the governmental cooperation between Denmark, Finland, Iceland, Norway and Sweden. He was the Managing Director of the Nordic Cooperation on Disability 1980-2004 and Secretary General for the Nordic Council on Disability Policy 1997-2004. He started and developed both these and other still existing Nordic bodies such as the Nordic Staff Training Centre for Deafblind Services, the Nordic Forum for Telecommunication and Disability and the Nordic Development Centre for Assistive Technology.

On the European level he has been a member of several expert groups under the European Commission 1985-2004, including the European Experts Group on Accessibility in 2004. He is also a founder member of the ECA network (European Concept for Accessibility). On the international level he had a major role in the work leading up to the UN Standard Rules on the Equalization of Opportunities for Persons with Disabilities, 1993.

He became a member of the EIDD Design for All Europe Board of Directors in 2001 and was elected President in 2007. He is also a founder member of the Swedish member organisation EIDD Sweden, Vice-President since its start in 1996 and President since 2004. www.designforalleurope.org.

Since 2005 he is running his own consultancy specialised in design management. He is also Project Manager of the Swedish national project DESIGN FÖR ALLA.SE 2005-2008.

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A good year for EIDD Design for All Europe

Mr. Finn Petrén
President, EIDD

With a significant influx of new member countries, a new website, a global Design for All competition, two collaborations on international conferences, and a signed partnership with Cumulus International Association of Universities and Colleges of Art, Design and Media, 2008 represented some significant progresses for EIDD Design for All Europe.

A voluntary organisation like EIDD Design for All Europe, being totally dependent on the unpaid work of a few elected Executive members, can not be expected to move at a constant speed. Some things take years to prepare. But now and then things mature and fall into place almost in parallel. 2008 was such a year for EIDD.

Introduction

EIDD's mission can be expressed in many ways. One is in terms of changing paradigms in both social and corporate thinking and in design. We have to move from "the average person" to human diversity as the norm for all planning and design decisions. To fulfil this mission we have to keep on demonstrating the opportunities offered by design and building strategic alliances. This article gives some examples of our practical work in these directions.

New EIDD member countries

At its 15th Annual General Meeting in Stockholm on 24 May 2008, EIDD membership received a real boost, welcoming no less than nine new Corporate Member Organisations distributed all over the European continent:

Ornamo - the Finnish Association of Designers, the Lithuanian Design Forum, the Norwegian Design Council, the Estonian Association of Designers, the Moholoy-Nagy University of Art and Design in Budapest, Hungary, Design Flanders, bNO - the Association of Dutch Designers, the Centre for Living Upright in Novi Sad, Vojvodina, Serbia and the Royal College of Art Helen Hamlyn Centre, London.

This new influx of significant members from the world of design for social development means that EIDD now has an active presence in twenty European countries (an increase of five over 2007): Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Serbia, Slovakia, Spain, Sweden and the United Kingdom.

EIDD, the joint European platform for social planners, architects, designers and others who believe in the potentials of their professions to play a vital role in the necessary transformation of our societies into more cohesive, innovative and sustainable ones, has been substantially reinforced in 2008 and its message has attracted a steadily growing interest around the world.

A global Design for All Competition

Two years after the former EIDD President, Pete Kercher, came up with the idea, EIDD launched in June 2008 the global Design for All communications competition for posters, institutional videos and guerrilla marketing tools, dedicated to capturing the differing perception of its work in the field of Design for All all over the world and applying it for promotional purposes.

The EIDD Design for All Europe award scheme was endorsed by Icograda (International Council of Graphic Design Associations). The organisational aspects were the responsibility of IIDD Design for All Italy and Design Center Bologna, headed by Carlo Branzaglia, the EIDD national director for Italy.

The deadline for entries, 21 September, was followed by intense jury work with almost 200 entries from all over the world, including China, Japan, South Korea, New Zealand, Iran, Israel, Mexico, the USA and of course several European countries.

On 13 October the international jury agreed on three winning entries within each category. These and many other thought provoking entries were then exhibited at the Accademia Albertina delle Belle Arti in Turin, Italy, among the initiatives of Torino World Design Capital 2008, from 17 October to 17 November 2008.The winning entries can be seen on the EIDD website www.designforalleurope.org.

The exhibition area at the Accademia Albertina delle Belle Arti in Turin

Being President of both EIDD and the competition jury, I owe Carlo Branzaglia and Daniele Campagnoli at Design Center Bologna a huge thank you for brilliant work in organising both the competition and the Turin exhibition. Next step might be a publication on the best entries.

European conference on Design and Housing for All in France

In connection with its 2008 autumn board meeting, held in Saint-Etienne (France) on 21 November, in the framework of the "Biennale internationale du design", EIDD partnered with Cité du Design de Saint-Etienne to organise a conference on Design for All applied to housing on the following day. The first

part of the conference was devoted to five international speakers appointed by EIDD. The event became a golden opportunity to highlight two of EIDD's new member organisations, the Helen Hamlyn Centre represented by *Rama Gheerawo* and the Norwegian Design Council represented by *Onny Eikhaug*. The other speakers were *Aleksandar Bogdanovic*, EIDD director representing Serbia, *Michal Ozmin*, EIDD Honorary Treasurer, *Avril Accolla*, EIDD Vice-President, and *Finn Petrén*, EIDD President. *Pete Kercher*, EIDD Ambassador, moderated the session.

EIDD speakers: Aleksandar Bogdanovic, Onny Eikhaug, Rama Gheerawo, Pete Kercher, Finn Petrén, Michal Ozmin and Avril Accolla

The second part of the well attended conference concentrated on housing schemes and challenges in Saint-Etienne and the Loire department and contained three round tables, with a focus on political actions, moderated by Bernard Laroche.

Collaboration agreement between EIDD and Cumulus

The collaboration agreement between EIDD and Cumulus, the International Association of University and Colleges of Art, Design and Media, was signed after being approved by the Cumulus Executive Board and the EIDD Board of Directors in their meetings in Saint-Etienne on 21-22 November 2008.

This partnership has been drawn up to provide a further framework for possible joint initiatives supporting the goals of both organisations and for enabling collaborative actions making efficient use of the complementary strengths of both organisations.

Cumulus is a non-profit organization of 140 universities and colleges of art, design and media. Cumulus is the only global association to serve art and design education and research. It is a forum for partnership and transfer of knowledge and best practices through conferences, workshops, projects among members and with industry, business and other partners.

Finn Petrén, EIDD President and Christian Guellerin, Cumulus President signing the collaboration agreement

International conference: "Imagine iT – Design for All" in Italy

An extremely active month for EIDD ended with a really brilliant conference in Bologna (Italy) on 28-29 November. This international conference was organised by Carlo Branzaglia and Design Center Bologna in co-operation with Simone Angelica Wolf at Typevents Italy, and with the patronage of EIDD Design for All Europe, which also was given the opportunity to invite six EIDD speakers.

The EIDD speakers were *Finn Petrén* (keynote) talking on the theme of "Re-thinking design", *Pete Kercher* on the theme of "Peace by design: a new look at the world's peace agenda", *Avril Accolla* on "I'm not standard, but design doesn't note" and *Aleksandar Bogdanovic* on "Conceiving playground for all". *Matthew Harrison* from the Helen Hamlyn Centre presented a two-year project called "Welcoming workplace", while the Finnish designer *Hannu Kähönen* presented "Design for All experiences in improving urban transportation".

Fourteen more speakers from Europe and two from the USA each added to a broad variety of contents and applications of Design for All thinking. First outcome: an overall success for the organisers and two wonderful days for the EIDD representatives. Second outcome: the word is spreading…

The venue: the beautiful Aula Magna of Accademia di Belle Arti, Bologna

The conference contained many highlights. One of my favourites was architect and graphic designer *Cinzia Ferrara* from Palermo, Sicily, speaking on "Design for legality" and addressing the opportunities offered by design in combating the way the Mafia disables local society, "Liberate the future" was one of the mottos used.

The 2006 Swedish campaign "Liberate diversity" on display again, this time in Bologna

This article has presented some highlights from a rather busy EIDD month of November. 2008 also brought some interesting partnerships with the Baltc countries Estonia, Latvia and Lithuania and some rather promising developments in our relations with the European Commission. To conclude with: EIDD is on the move.

Conclusion: Design for social development

EIDD Design for All Europe is the only design-led organisation in Europe focusing on using design for social development. Our long term success depends on our abilities to inspire changing paradigms in both social thinking and design. The need for a new paradigm applies of course also to industry. The challenges are enormous.

To succeed we need to believe. Believe that social change is possible. Believe that design thinking and professional design can make a difference. But innovative thinking - the core of Design for All - challenges the status quo, and challenging the status quo invites resistance. It has been said that nothing restricts our ability to innovate more than what we know already and therefore believe not to be possible. This in itself is already a design challenge.

Of course it is possible. With these concluding words I take the opportunity to wish all readers of the Design for all India Newsletter a successful New Year 2009.

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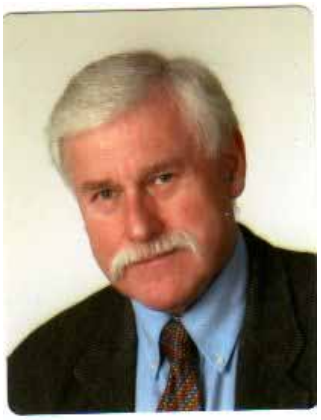

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Michal J. Ozmin was educated at the Academy of Fine Arts in Warsaw, Poland, and the Queen's University Institute of Science and Technology, Manchester, England . He studied Interior Architecture, Industrial Design and Design Technology.

In 1975, he became Professor of Design at the National College of Art & Design, Dublin, where he headed the Faculty of Design. In 1985, he took the post of Dean of the Faculty of Art & Design and, later, of Dean for Foreign Affairs, at the Southampton Institute (Solent University). In 1996, he was appointed Joint Head of the Faculty of Design at Griffith College, Dublin. He retired in 2006.

Michal's extensive academic and professional experience includes academic and financial management, developing degree and postgraduate programmes in Industrial Design, Product Promotion and Interior Architecture, developing procedures for quality assurance, managing European projects on Programmes such as Erasmus, Tempus and Phare; co-operating with Universities at Le Havre, Odense, Santander, Sankt-Petersburg, Kosice and others, including establishing an

International School of Commerce in Poland. As a management consultant, he is a Vice-Chairman of a public transport joint-venture company in Poland. In Ireland, he led the Barcelona Declaration Project (2001-2004), an Irish Government Social Inclusion initiative to make cities, towns and boroughs accessible. He was EIDD representative on the Steering Committee of the European Project on Public Procurement/Build for All and has also been involved in organising EIDD conferences in Design for All. Recently, he has been working with Irish Local Government, State Agencies and private enterprise on projects related to accessibility, disability and social inclusion.

A former Chairman of the Institute for Design and Disability (Ireland), Michal has been a member of the Executive of EIDD Design for All Europe since 2003.

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A Conversion on the Road to Damascus: a designer's personal story of his increasing awareness of the potential of Design for All for social inclusion

Michal J. Ozmin, Honorary Treasurer, EIDD Design for All Europe

Although I was educated as a designer in Poland and in England, the majority of my professional career has been spent in Ireland. In the course of my career, I have experienced cultural diversity, specific ways of handling professional interrelations and particular preferences in approaches to problem-stating and problem-solving. These experiences range from very intuitive to very systematic. However different these approaches or situations presented themselves, I found two things to be prominent in the designers' belief, no matter what background, country, creed or politics they represented. By 'designers' I refer to the professional grouping of designers, ergonomists, interior architects and engineers.

Firstly, designers fundamentally believe that by applying our unique creativity, design intelligence and design skills, we can change the world for the better. Thus our mission is to improve the quality of life for our fellow beings.

Secondly, a project's conception, from the point of view of a designer, commences the very moment a brief is issued with the word "go!" Then the magic happens, something which was in a sphere of conceptual deliberation by various persons or groups is potentially transformed through the process of design

into a beautiful, perfectly functioning product. In this context, the understanding of social needs, requirements and specificity of target users is taken for granted. However, in my experience, we designers often misinterpret briefs and substitute understanding with arrogance.

We received our education from a generation of educators who were enthusiastic about design, who in turn received their education from an equally romantic generation… who received their education from a generation who fought with dignity to bring respectability to the profession.

In the seventies, as a young Professor of Design heading a faculty, I channelled my enthusiasm and knowledge into didactical work introducing generations of dedicated young designers to the beliefs and core values I had been trained in. Of course, as a member of a progressive design education culture, I insisted that as an integral part of their curriculum they would study ergonomics, material processing, sustainability, product reliability, ICT and design management.

I never questioned the logic of the conception of a product, which we assume starts the moment a designer tackles the problems specified within a brief. I promoted ergonomic tests and I fully accepted product testing, but I never questioned the capability of designers' creativity or skills in getting a product to at least meet the brief's requirements and, in the case of best practice, to deliver something beyond the remits of a specified brief.

But then my professional capacity changed from being a designer to taking responsibility as a project manager and management consultant. As a result, I started to ask new questions of my profession which forced me to review the belief structure of my formal education.

I was faced with the question of product origin and was exposed to decision-making processes that defined what and how products would be designed, delivered and implemented. If we accept that by "a product" we understand a service, a system, a structure or a social interaction, as well as an artefact - the end product - the question regarding enabling processes becomes of paramount importance. For me in particular, the next question asks how Design for All itself, as a process, relates to this first question. When does DfA commence and what does it embrace? Who initiates the decision-making process and what part do designers play in it?

A decision-making process is assumed to be an intellectual exercise. What is often overlooked is its hierarchal, pyramidal structure, as illustrated below.

Strategic decisions involving policies regarding politics, economy, society, environment and culture

(International bodies - charters, conventions, protocols. Governments – constitutions, legislation, regulations - Politicians, financiers, lawyers)

Strategic decisions involving market systems and directions
(Governments, multinational corporations, politicians, financiers, lawyers)

Strategic and tactical decisions regarding investments
(Entrepreneurs, developers, corporations, controlling organisations, banks; politicians, financiers, lawyers)

Tactical decisions regarding type of product: Feasibility studies, financial analysis, business plans
(Experts, analysts, business and financial advisers
Note: the "Experts" group may include designers)

Operational decisions regarding: What, how much where, when, who, how, time scale;
(Developers, entrepreneurs, clients, senior managers, financial and other experts, project managers)

Final decisions regarding the Project Brief issued to Architects, Designers, Engineers, Ergonomists
(Developers, entrepreneurs, clients, senior managers, financial, marketing and other experts, project managers)

Project development: All stages of the design process - design decisions from concept through models, testing to full set of working drawings, specification forecasting and impact assessment
("Designers" group, manufacturers, project managers, quantity surveyors, contractors, suppliers, users/customers, activists, clients)

Final stage of implementation – the product launch
(Above groupings + logistical support marketing and retail, private and public corporations e.g. central and local government-central, PR)

Market response to the product

Product monitoring and evaluation

(Clients, entrepreneurs, developers, commercial companies, manufacturers, marketing, maintenance and services, users/customers, activists, public, private and public corporations)

("Designers" group?)

This hierarchy may be regarded as a bias reflecting a very traditional view. Nevertheless, it also reflects the fact that the "designers group" lays rather low in the hierarchy of a decision-making culture, with the result that the designer's capabilities in bringing about change and improvements are limited. It is clear that a project conception starts at strategic levels. In this, designers are rather at the receiving end of the product origin process and not at the early stages, unless the project itself is initiated by an independent designer/entrepreneur. One fundamental element in this process is the creation of political, economic and social frameworks that decide whether or not a new design will be implemented, a new system introduced or new product developed at all.

The story of Ralph Nader, a consumer activist in the fifties and sixties in the USA, is a fine example of how conventional

paradigms can sometimes be forced to burst apart at the seams. Nader was not a designer or ergonomist: he was a lawyer who was concerned with car safety. He it was, not designers or ergonomists, who recognised that the inherently faulty design of car features caused mortality that went well beyond the failure of the design as a working product.

While designers were preoccupied with styling as a way of enticing consumers to purchase a vehicle, safety was relatively unused as a selling point. Nader's advocacy of automobile safety and the publicity generated by the publication of his *Unsafe at Any Speed*, along with concern over escalating nationwide traffic fatalities, led to the unanimous passage of the 1966 National Traffic and Motor Vehicle Safety Act. This Act established the National Highway Traffic Safety Administration and marked a historic shift in responsibility for automobile safety, transferring it from the consumer to the manufacturer.

The legislation mandated a series of safety features for automobiles, beginning with safety belts, stronger windshields and the elimination of protruding central steering wheel columns. By forcing through legislation to enable consumers-car users to sue the American automotive industry for ill-designed features, Nader revolutionised the approach to car design, making the public and society aware of bad design. Effectively, in the process, he changed worldwide car aesthetics, the way materials were used and the attitudes of car manufacturers to their clients-user base. Fundamentally, although it was about saving lives, it also paved the way for

ergonomics to start playing a social rather than a purely military role, then, in the seventies, it paved the way for an era of Scandinavian ergonomics and social design. I note, however, that a paradigm shift of the kind that leads to questioning the cultural sphere within which a product is designed still eludes most designers and their professional representative institutes and associations.

Ultimately, if we as designers work in isolation, our mission to improve the quality of life for our fellow beings is unsustainable and hardly achievable, so the belief that we can change the word for better is a myth.

So if designers are not in a position to make decisions at strategic and tactical levels, what role can they play in modern society?

We can of course redirect our carriers and move into political and management positions: other professions have been doing it for generations. Or we could transfer our skills to become lobbyists and activists. The former is not within a "design mentality" (if such a thing exists), but the latter is far closer to the way designers think. Even though DfA refers to the process as a whole, while UD refers mostly to the end product, the movement of Universal Design (UD) in America, Inclusive Design (ID) in the UK and Design for All in Europe was initiated through design activists, not necessarily designers themselves, networking together.

Another, more direct, avenue that places designer on the strategic level in decision-making processes is that of becoming an entrepreneur. It works well in terms of product innovation. James Dyson is one of the best examples: for him, creativity and an innovate approach, coupled with financial risk-taking, perseverance, drive and uncompromising philosophy in terms of standards, have paid a dividend.

In the first few decades of the 21st century, three dominant challenges which designers must respond to are emerging clearly:

•Accessibility in term of social inclusion :

The built environment; work place and leisure; Information and communication technologies (ICT); the quality of customer services; migrant mobility and transportation; education and training.

•Sustainability

Alternative energies for conventional products; product innovation - alternative materials and technologies to replace conventional products; "Lifetime" developments and adaptability.

•Preservation

The man-made environment; natural resources; ecosystems and the use of materials; energy conservation.

Designers may not be able to change the world, but there is an option.

I argue that designers as a group can make a very significant contribution to our society by enhancing the quality of life and the quality of working conditions through applying design intelligence, design skills and particularly through Design for All.

For a designer to implement a project through Design for All is to:

- **Make the best use of enabling processes that are often "hidden" in political, economic and particularly legislative frameworks;**
- **Insist that all decision-making be vetted to ensure that the social equality agenda is fully factored in;**
- **Seek user participation and conduct user consultation.**

In design education, there is an inherent element which links creativity with freedom of action. It is so easy to conclude that frameworks of any kind restrict the freedom of thought. This is another myth: it is those very "restrictions" that drive creative minds to innovate. So I argue that designers must not shy away from using legislative frameworks, though they must remember that they are not alone in the decision-making and design process. Other participants' enthusiasm and awareness are important, but not enough. With regard to legislation and the frameworks it establishes, all participants, players and stakeholders in design processes must be assured that their input is clearly secured and their contribution supported by legislation, rather than hindered by it.

For designers to make maximum use of this thinking, it is crucial that they achieve an understanding of how to harness the political, economic and legislative framework to their advantage: the framework itself must constitute a vehicle for implementation.

A new beginning…

The framework must not only enable designers to carry out a project successfully, it must also inspire them to go further that the minimum requirements set in legislation (going "beyond compliance"). Should we succeed in achieving this, I am convinced that more projects based on DfA will see the light of day and the contribution we can make to our society will gain in significance.

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Note on Universal Design and user involvement through personas

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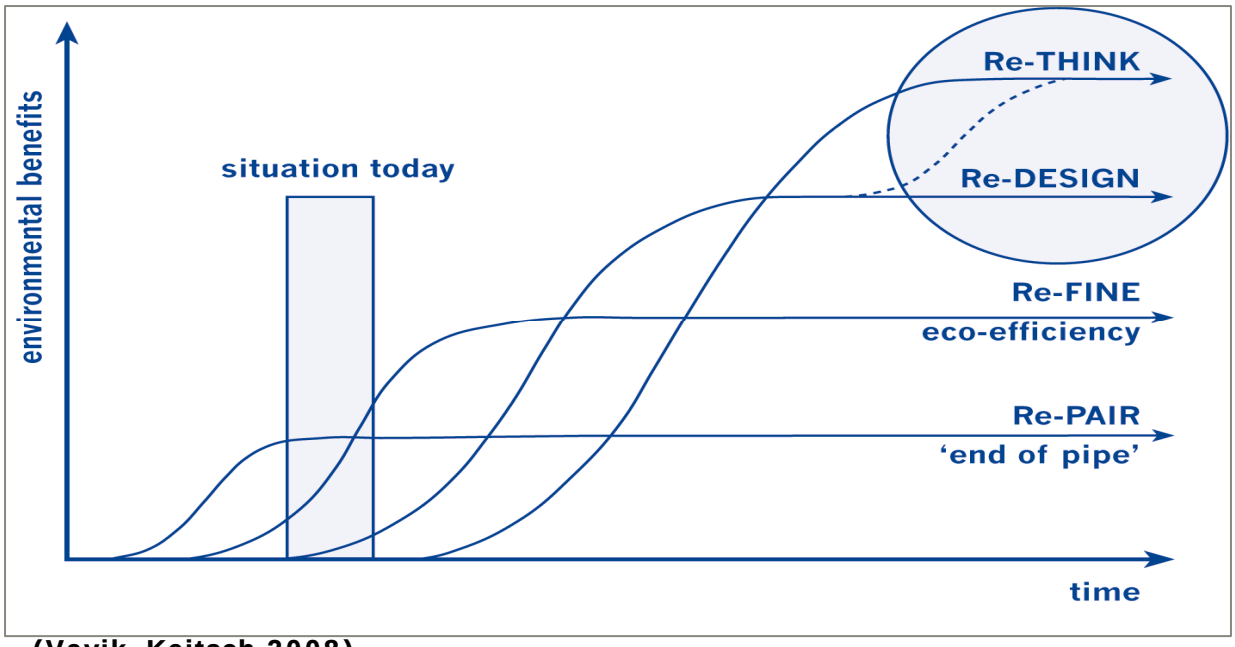
Design is often associated with making good looking, expensive products. However, designers with their creative and analytical skills can also contribute to better access to education and participation in local communities and thereby promote changes towards social innovation as a crucial part of advancing a sustainable, inclusive development (See also: The Rio Declaration: Universal Design for Sustainable and Inclusive Development, February 11, 2005).

The goal of this note is first to argue that the universal design concept contains a fruitful perception of users, which can be commonly employed for solving societal, design related problems and second to illustrate how this perspective can be advanced methodologically through the appliance of narrative tools, with a special focus on personas.

Within universal design, the psycho-physical and socio-cultural aspects of a product obviously affect the users as strong as its functional qualities (Rains 2008) and designers should therefore improve their knowledge about the former. One way of doing this is to consider users needs. Another task of the designer is then to interpret and translate these needs into desirable product attributes (Verganti, 2003).

In design research and education the focus for methods to explore users' needs has successively changed in the last decades, from positivistic modelling towards the employment of social science inspired tools that have more affinity with design processes than the science / engineering models. Employing these tools for user involvement implies for example to abandon a more or less tacitly accepted view on the determinability of users' feelings through a designer and finding new ways to describe the user-product nexus (Richardson 1993). Still the question remains how to involve users in a most appropriate way.

Some authors claim that the scope of interest has generally changed in the design field, from a focus on material aspects of products to a focus on the intangible, from functions to pleasure, from goods to services and values (Jones 1997, Pine, Gilmore 1998). According to these views, the figure below illustrates not only universal design development but may indicate a process which is visible in other design areas too, for example design for



(Vavik, Keitsch 2008)

The interest to understand users' needs has further raised concern regarding how well designers' interpretations of user experiences match the user group. This concern also searches for innovative methods and tools that combine quantitative measurements with interpretative and narrative ways to communicate with users (Desmet 2002, Green and Jordan 2002). Moreover, ways of understanding design not as sole problem-solving activity but as 'reflection in action' (Schön 1995) opened up novel ways of practicing design and design research. As e.g. Swann remarks (2002, 50):

"Postmodernist philosophy - challenged this {engineering} dogma and urged a more tolerant and pluralistic approach to what might be good for the end-users. The social sciences brought forth a number of alternative ways to investigate and validate research and information, alternatives that have more affinity with design processes than the science/engineering model."

According to Rains, this assertion is valid for universal design as well

"Beyond technical mastery of the Seven Principles, knowledge of best-of-breed solutions, and familiarity with allied concepts such as Visitability, Adaptive Technology, or anthropometrics there is a cultural component to this design approach that is unquantifiably – but undeniably – transforming Universal Design. By systematically and thoroughly examining this cultural component in the coming decade we will discover the true nature of Universal Design to be social sustainability." (2008)

Storytelling, scenarios and personas are narrative, culturally and socially oriented, tools that can be used in interaction with stakeholders. The advantage of these tools is that the product/service is placed within the lives of real users. The background for applying them is people, products and the interactions that bind them together. From my point of view the special relevance of narrative tools for universal design lies in their (often tacit) axiological underpinning: the understanding of social practice as open texts (Fairclough 1989, 20) or as discourses. For Foucault the discourse constructs the topic, defines the objects of knowledge and directs the understanding of meaning, simultaneously developing a context of meaning. The discourse also influences how ideas are put into practice. For example, a discourse on madness can include writings and drawings by people who are considered mad, writings by doctors and administrative people who work with madness and insanity, novels with mad characters, autobiographies of relatives, as well as writing about madness from other disciplines.

The requisites in this discourse could be terrifying images of mad people, straightjackets, bars, asylums, hospitals etc.[10]

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[10] The picture is the starting page of Sebastian Brant's book: Das Narrenschiff, which metaphorizes the phenomenon of the madmen's ship, a common practice in 14th century Europe to get rid of insane people, who were transported on a ship, sailed away and "got lost" (see also Foucault 1973, 25, 26).
The introduction text says: "Some went down to the sea in ships, doing business on the great waters; they saw the deeds of the Lord, his wondrous works in the deep. For he commanded and raised the stormy wind, which lifted up the waves of the sea. They mounted up to heaven; they went down to the depths; their courage melted away in their evil plight; they reeled and staggered like drunken men and were at their wits' end." Psalm 107, 23-27.

Applying narrative tools means methodologically: examining the social practices of groups by *interacting* with people in their everyday settings and then potentially proceed to identify

specific user needs and artefacts for further studies. It also means to reflect on the larger discourse context (see above) which includes a systematic consideration of social, political, aesthetic and economic frameworks of e.g. disability cultures.

The following section looks closer at user involvement through the design of personas and illustrates their practical employment with help of a student case. The development and appliance of personas (fictional users) is a method that is not unproblematic, but it has a great potential. The normative bottom line of personas is, as in most narrative approaches, that users are the ultimate experts of their needs. Epistemologically, the goal is to understand, analyze and integrate different user characteristics and translate them into product/service attributes. Pedagogically, personas can be employed to sensitize students/designers for users' experiences and values when designing a product, especially when the users are not part of the designers' ordinary lifeworld. This means for example to understand what it's like being old and study what old people do and how they cope with daily life challenges.

Personas are helpful tools to find out what users appreciate. To create a persona a designer should interview target users and also include information such as Personal profile (age, gender, education, job, hobbies, family, socio-economic group, etc., Role (job role for work-centred sites position in household for home-centred sites) and Flavouring back-story, what sort of house they live in, how long they have had their job, where

their parents/kids live, where they went on their vacations, etc.

In the Master Students course at the Oslo School of Architecture the use of personas had the goal to help the students developing a new understanding of what is normal or appropriate product use. This understanding has its starting point in a common sense perception and moves to a more professional one, where the designer realizes the challenges that users face using products and services. The methodological scheme for the personas was developed by Keitsch and is shown in the table below. The design students in the course were supposed to employ the scheme to develop their own personas and narratives and use these throughout the design process.

Context	Qualitative examples	Quantitative examples
Physical	Personal experience and conversations with relatives, interviews	Survey of older persons and health
Mental	Conversations, articles, stories, movies	
Intellectual	Literature, Novels, Movies	Reports on intellectual development
Social	Interviews, Literature	Survey of social situations, Statistics
Ethical	Own experience and attitudes	
Aesthetic	Exposure of persons in media, Appearance of existing products	
Specific	Interaction with electronic devices, Advertisements	Technical reports, Benchmarking existing products

One persona from the Master Students course:

Persona: Odd Brevik
(average or domination of findings)

Biography

- 72 years old
- Moved from Lillestrøm to Oslo after his wife died.
- Has a son in Bergen, and a daughter in Trondheim.
- Doesn't know anyone else in Oslo yet.
- Hasn't been driving for a few years now.
- Misses sometimes his family and old friends
- Has a help come in twice a week.
- Would like to be able to inform himself and communicate more.

Odd Brevik

Health

- Has trouble sleeping from time to time. Will wake up in the early hours and often not get to sleep again for 2-3 hours.
- A little arthritis in his hands.
- Can move about.
- Sometimes has a rest in the afternoon.
- Has trouble with his eyes after watching TV too long.

Odd Brevik

Technology

- Has worked manually, has little knowledge about PCs and their use, and is a little nervous about them.
- Has a mobile phone, and instructions on how to use it from his friends.
- Uses the microwave to prepare many of his meals.
- Uses a video recorder, but can't be bothered setting it to record things.

Odd Brevik

Goals

- Being updated what is going on in the world.
- Not to be lonely.
- Keep in touch with friends and family.
- Avoid frustrating technology experiences.
- Not be reliant one anyone.

Tell tale quote:

"It is so comic to hear oneself called old, even at ninety I suppose!"

The following student case shows the appliance of the persona tool for the design of a software concept for moving and handling information in healthcare organizations design for older users.

Quick Work - A software concept for moving and handling information in healthcare organizations which uses patient-lifters

Original text by Marte Stine Richardsen.

"FROM PRODUCT- TO SERVICE PROVIDER

The project is divided into to parts. The first "delivery" is a new perspective of what the company delivers. I see the company as a service-provider instead of a product-provider. The new perspective is introduced for the company through a service-design process and the description of the company as a service-provider is collected as "Service maps".

The second part is a service concept as an example of what a service design process can lead to for the company. This concept is called QuickWork and it is software for moving and handling information in healthcare organizations witch uses patient-lifters. The software is for smartphones, PCs and Molifts patient-lifters. In the future, carriers may carry smartphones with an electronic patient journal.

QuickGuide makes it possible for the carrier to get updated information about the moving and handling situation for the patient on these phones. The information is about where the lifter is and its condition, QuickGuides for use of the lifters and possibilities to send messages about the lifter and the moving and handling situations to the caretaker and physiotherapist. The software is also for the lifter to automatically adjust to the actual patient.

One of Molifts products

The information is easy accessible for the carrier by RFID (RadioFrequency-IDentifikation) technology. Every person and lifters have their RFID tag with a code. The carrier has a tag in her watch, the patient a tag outside his door and the lifter has also a tag. When the smartphone is in reach of the tag the actual information is displayed. The lifter also read the tags to adjust. But it is also possible to search for the information on the phone manually.
QuickWork gives the opportunities to connect to the QuickBase where the carrier can download personal settings and

information, such as QuickGuides in their own language and with the possibility to choose to get the phone to "speak" to the patient while lifting him. The QuickBase also has motivation programs for the carrier, like a competition to lift the most with the lifter in a period.

USER INVOLVMENT

The core problem for the Molift Company has been that the carriers have, but do not use the patient lifters. My challenge was to design something that made them use the necessary equipment. And often the reason why people do not use products is because these are not designed for them (Cooper, 1999). Then it is obvious that the user needed to be brought into my design process.

User involvement

In the beginning of the Master course we where introduced to the design and communication tool of Personas. The idea about personas, invented by Allan Cooper, is to describe a constructed user to represent the user in the design-process. (Cooper, 1999) With a persona it should be easier to communicate the users' needs and make decisions in the design process. Cooper says that persona have to be constructed as real people. This gave me many different ideas, based on each need.

During the whole project have I also discussed ideas with different users. This has given me the right perspective and help to sort out what is good and what is bad, and connect my ideas to real life for the user.

INNOVATION

The innovation in this project is for the first a business model innovation. The new perspective on the company as a service provider instead of a product provider has resulted in new methods for developing the user experience.

The new concept

This innovation is at the beginning innovation for the inside of the organization, and may later result in innovation for the user. The QuickWork concept is service innovation. It is a system to improve the existing service experience. The system could make the careers use the existing products or services more and the result will be fewer sick leaves among health care workers and then less cost for the society.

Conclusion and Outlook

It seems that if narrative tools are to be employed in universal design, some exercises have to be done by forehand. For example, even if the persona tool has a wide appeal to different users there is a lack of a best practice in the field and sometimes making and using personas is grounded in weak methodology (William 2006). These shortcomings have often to do with the fact that the investigation of a greater variety of user characteristics and attitudes towards a product or a service makes it necessary to create sets of personas and scenarios (such as secondary personas that are not the main target, but should be satisfied if it can be done without upsetting the primary personas or negative personas as someone who is explicitly NOT designed for - useful to avoid, and so on). In case of universal/inclusive design it might also take some time to match/trade-off requirements of rather heterogeneous user groups and idiosyncratic users.

However, narrative tools such as personas have advantages, for example that they raise interest in different lifeworlds from an empathic, not functionality oriented perspective. Practically, personas can help to ensure that the designer is not designing for herself but for the user. Designers are seldom representatives of the intended audience.

In a design group, personas decrease the problem of the 'elastic user' and the difficulty trying to design for every possible user in every possible situation, and a persona can be used as communication tool ensuring that everyone is aiming at the same user. In the perspective of universal design, personas have also the benefit that they are archetypical and thus many users are close enough to a persona that they will be content with the design. And last but not least personas raise awareness for the fact that normalcy is as much a construct as any other.

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Universally Designed IT: Experiences of One University

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Technology has the potential to maximize personal productivity, access to information, and collaboration among students, faculty, and staff in postsecondary institutions. However, many websites and other information technologies (IT) at postsecondary institutions are not fully accessible to people with disabilities. There is no single way to increase the use of accessible IT on campus, but there are promising practices that advance this effort, including (1) securing the support of high-level administrators; (2) involving key stakeholder groups; (3) adopting guidelines or standards; (4) providing training and technical support; (4) developing goals, benchmarks, and timelines; (5) implementing a system for monitoring accessibility progress and revising policies and procedures; (6) working with one program to create a model of accessibility policies and practices to share with others; and (7) recognizing those who promote the use of accessible IT on campus. This article summarizes the experiences of one large university in the United States that has addressed IT accessibility issues in multiple ways. The content is adapted and reproduced with permission from a longer publication (Burgstahler, Slatin, Anderson, & Lewis, 2008).

Technology has the potential to maximize personal productivity, access to information, and collaboration among students, faculty, and staff at postsecondary institutions. It is unlikely that schools intentionally exclude specific groups from the opportunities technology provides. Nevertheless, when campuses use IT that is not designed to be accessible to people with disabilities, some of these individuals encounter barriers to education and employment. In contrast, when colleges and universities design and employ websites, application software, and other IT that are accessible to and usable by all students and employees, they lead the way toward leveling the playing field and supporting full engagement in academic and career activities.

It has been estimated that more than 6-11% of all college and university students in the United States have disabilities (Henderson, 2001; National Center for Education Statistics. (n.d.).). Their level of enrollment is increasing as more inclusive pre-college programs, AT, and legislative mandates offer greater opportunities for people with disabilities to prepare for and succeed in college studies (Henderson, 2001; National Council on Disability, 2000). In light of this trend, as well as increased use of IT by all members of the campus community, IT access for students with disabilities is particularly important. In short, to ensure these students have equal educational opportunities, colleges and universities need to (1) make assistive technology available to students, faculty, and staff with disabilities and (2) develop, procure, and use accessible IT. The authors of this article summarize key issues of these two factors, discuss related efforts made by one

university in the United States, and share lessons learned that could be applied at other institutions.

The availability of a wide range of assistive technology (AT) makes it possible for an individual with almost any type of disability to operate a computer and telecommunication equipment (Closing the Gap, 2007). Alternative keyboards, text-to-speech software, screen magnification, word-prediction software, grammar and spelling checkers, and other AT all play roles in giving people with disabilities access to IT that enhances their academic and career opportunities. However, AT solves only a portion of the IT access problem. Other issues concern the design of mainstream IT. For example, individuals who are blind often use text-to-speech systems that read aloud what appears on computer screens. However, these speech output systems only provide access to content presented in text format. Therefore, webmasters need to provide alternative ways to access content presented in non-text form (e.g., images, frames), so they do not erect information barriers to people who are blind.

Universal design of IT is the electronic equivalent to curb cuts (Center for Universal Design, 1997). Although curb cuts were created to assist people using wheelchairs, they also aid people pushing baby strollers and delivery carts—many users benefit from accessible design. For IT, universal design means that the full spectrum of user abilities is considered at the design stage, and, as a result, products are accessible to all individuals, including those using a range of mainstream computing devices and AT (Burgstahler, 2008). For example, captions on video clips benefit a student for whom English is a second language,

a faculty member who is deaf, a person who wants to search for specific content in the clip, and a student working late at night while other members of the household are sleeping. Similarly, a student who cannot access graphics because of a slow Internet connection benefits from text alternatives to graphic images that are also used by individuals who are blind. In addition, providing content in multiple formats addresses the needs of students with various learning disabilities and styles. Unfortunately, many postsecondary web pages erect significant access barriers to visitors who have disabilities, particularly those with sensory impairments (Kelly, 2002; McMullin, 2002; Thompson, Burgstahler, & Comden, 2003). In addition, many distance learning courses are not offered in a fully accessible format to students with disabilities (Burgstahler, 2002, 2006; Burgstahler, Corrigan, & McCarter, 2004; Edmonds, 2004; Kinash, Crichton, & Kim-Rupnow, 2004; Michigan Virtual University, n.d.; Schmetzke, 2001).

Legal Issues, Standards, and Guidelines

In the United States, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA) prohibit covered entities, including postsecondary institutions, from discriminating against individuals with disabilities. Although legislation makes it clear that colleges and universities must make their academic programs and information resources accessible to people with disabilities, there are no standards for IT accessibility that apply to all educational institutions.

A 1998 amendment to Section 508 of the Rehabilitation Act of 1973 requires that the U.S. federal government adhere to standards developed by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board) to ensure that electronic and information technologies procured, developed, or used by agencies and departments of the federal government are accessible to employees and members of the general public with disabilities (U.S. Department of Education, 1998). The Access Board offers standards that can be used as a model by other entities not covered under Section 508, including educational institutions. The Section 508 standards cover software applications, operating systems, web-based materials, telecommunications, multimedia, office equipment, and other IT products.

Some postsecondary institutions have chosen to incorporate Section 508 standards into their accessibility policies. Others have adopted the Web Content Accessibility Guidelines (WCAG) published by the World Wide Web Consortium (W3C) (1999). Still others have developed unique standards or guidelines for their campuses. Some of the procurement and development processes and resources that have been put in place to help federal agencies comply with Section 508 regulations can provide model procedures and tools for higher education as well. For example, technology companies that serve higher education can voluntarily publish the accessibility features of their products in Voluntary Product Accessibility Templates (VPATs) available online. Universities can use this content (recognizing its limitations, since it is provided by vendors) as they evaluate the accessibility of IT prior to procurement.

Campuses nationwide are addressing the need to ensure access to both AT and mainstream IT for students with disabilities through a wide variety of policies and practices. The accessible IT efforts of the three large universities highlighted in an earlier article (Burgstahler, Slatin, Anderson, & Lewis, 2008)—the University of Washington (UW), the University of Texas at Austin (UT–Austin), and the University of Wisconsin–Madison (UW–Madison)—have been reported in the media (e.g., Oberlinger & Ruby, 2004) and at national and international conferences. Their stories provide examples of strategies that may be employed by other universities. In the remaining sections of the current article, co-authors describe accessible IT approaches and achievements at one of these institutions, the UW.

University of Washington

More than 50,000 students and 15,000 faculty and staff work at the UW, whose main campus is in Seattle, Washington. More than 700 students register for services from the Disability Resources for Students (DRS) office. The Disability Services Office (DSO) provides similar services to faculty, staff, and visitors with disabilities. The UW hosts many different on-campus services that promote accessibility, as well as the far-reaching DO-IT (Disabilities, Opportunities, Internetworking, and Technology) Center. Since 1992, DO-IT, has received federal, corporate, and foundation funds to promote the success of people with disabilities in postsecondary academic programs and careers, employing technology as an empowering tool.

Assistive Technology

In the 1980s the Adaptive Technology Lab (recently renamed the Access Technology Lab, or ATL, to reflect increasing efforts in consulting on the design of accessible IT) received national attention as one of the first comprehensive postsecondary adaptive technology services in the United States. The ATL houses a collection of AT that students, faculty, and staff can test drive and provides a central resource that supports a distributed model of campus computing. ATL staff work with campus computer lab administrators to help them obtain the necessary hardware and software for students with disabilities using departmental labs. The ATL is part of the Accessible Technology division of UW Technology Services and works closely with DRS and DSO.

Accessible IT

ATL staffs provide consultation to departments ranging from assistance in evaluating software for accessibility during the procurement process to guidance in the design of accessible websites. For years, the ATL has offered web accessibility presentations on campus and worked to integrate accessibility issues into mainstream web development courses. The ATL also has an ongoing relationship with Learning & Scholarly Technologies (a UW Technology unit that develops electronic tools, strategies, and training for faculty members) to ensure that the tools they create are accessible to individuals with disabilities. Because of its close collaboration with the ATL, this group routinely considers accessibility issues in product design and training.

The University does not have a policy that addresses specific expectations regarding the accessibility of IT. Instead, the UW approach is to apply to IT its existing policies for meeting Section 504 and ADA obligations. UW policy states: "The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities." (University of Washington, Office of Equal Opportunity and Affirmative Action, n.d.) To help campus units comply with this policy, UW Technology Services maintains a website devoted to guidelines and resources for making websites accessible (University of Washington, n.d.b); these web resources were recently expanded to include other types of IT (University of Washington, n.d.a). The site promotes the Section 508 standards and procedures as a model and resource. For web page design, it first points to Section 508 standards as minimum guidelines for accessibility and then to the more in-depth guidelines and resources provided by the WCAG. ATL staff work closely with other UW Technology staff to ensure that primary UW websites are designed to be accessible to all visitors. However, the vast majority of web content is produced by faculty and staff who are outside the control of central units.

***Accesssibleweb Group*. An approach used to address this problem is to foster grassroots collaboration among people from a cross-section of UW units, within which peer support, adherence to accessible web design guidelines, and advocacy is encouraged. UW Technology Services instituted a user group, *accessibleweb*, of individuals who develop and maintain websites across campus.**

Members communicate using electronic tools and meet monthly. They encourage each other to embrace accessibility, rather than simply apply a list of standards to achieve minimum compliance.

Advisory Committee. **The UW has an advisory committee that deals with a broad range of access issues for people with disabilities and makes recommendations to the Vice Provost for Minority Affairs and Diversity. This group, the Advisory Committee on Disability Issues (ACDI), includes representation from key stakeholder groups, including people with disabilities. Because UW Technology Services and DO-IT staff are among its members, ACDI has served to increase awareness regarding the importance of the procurement, development, and use of accessible IT.**

Capacity-Building. **The Northwest Alliance for Access to Science, Technology, Engineering, and Mathematics (*AccessSTEM*) (DO-IT, n.d.b), funded by the National Science Foundation (NSF), hosted an *Accessible Web* Capacity-Building Institute (CBI) of webmasters and administrators at postsecondary institutions in Alaska, Idaho, Oregon, and Washington. At this event, technology and management staff shared challenges and solutions for promoting the accessible design of websites on their campuses. The online proceedings were made available nationwide (DO-IT, 2006). This event successfully raised awareness of accessible web design, as evidenced by tripling the membership of the *accessibleweb* group on the UW campus. A second CBI was held in 2008 (DO-IT, 2008). It expanded on the content of the first Institute to include all types of IT and focused discussions on implications for the three UW campuses. Based on experience at the UW, it**

has become increasingly clear that, besides issuing directives, schools can promote technology accessibility through informal teams of stakeholders that discuss issues, increase awareness, and develop a commitment to accessible design. They can promote a sense of community and cooperation with far-reaching benefits.

Outreach. **The National Center for Accessible Information Technology in Education (*AccessIT*) (University of Washington, n.d.c), originally funded by the National Institute on Disability and Rehabilitation Research of the U.S. Department of Education, supports a searchable Knowledge Base of case studies, frequently asked questions, and promising practices on accessible IT in education. A similar collection, hosted by DO-IT's *AccessSTEM* (DO-IT, n.d.b), complements the *AccessIT* database with content related to AT and other tools and strategies that increase the successful participation of people with disabilities in academic programs and careers in science, technology, engineering, and mathematics. Another complementary database is hosted by the Alliance for Access to Computing Careers *(AccessComputing)* (DO-IT, n.d.a), which is funded by NSF to increase the participation of individuals with disabilities in IT career fields. Together, these three Knowledge Bases provide a comprehensive resource on the development, procurement, and use of accessible IT.**

Highlight: UW Distance Learning

DO-IT and ATL staff have helped the UW Distance Learning program improve the overall accessibility of its courses, thus maximizing program access and minimizing the need for

accommodations for students with disabilities. An award from UW Technology acknowledged the accessibility efforts of the UW Distance Learning design team. With funding from the U.S. Department of Education (DO-IT, n.d.c), DO-IT and UW Distance Learning entered into a collaborative project, *AcccessDL*, with sixteen other postsecondary institutions. Participant efforts resulted in the creation and implementation of accessibility indicators for distance learning programs. Each *Distance Learning Program Accessibility Indicator* relates to one of four key stakeholder groups in the delivery of distance learning courses (Burgstahler, 2006, p. 86) as follows:

For Students and Potential Students:

- ***DLP Accessibility Indicator 1*. The distance learning home page is accessible to individuals with disabilities (e.g., it adheres to Section 508, W3C or institutional accessible-design guidelines/standards).**
- ***DLP Accessibility Indicator 2*. A statement about the distance learning program's commitment to accessible design for all potential students, including those with disabilities, is included prominently in appropriate publications and websites along with contact information for reporting inaccessible design features.**
- ***DLP Accessibility Indicator 3*. A statement about how distance learning students with disabilities can request accommodations is included in appropriate publications and web pages.**
- ***DLP Accessibility Indicator 4*. A statement about how people can obtain alternate formats of printed materials is included in publications.**

- ***DLP Accessibility Indicator 5*. The online and other course materials of distance learning courses are accessible to individuals with disabilities.**

For Distance Learning Designers:

- ***DLP Accessibility Indicator 6.* Publications and web pages for distance learning course designers include: a statement of the program's commitment to accessibility, guidelines/standards regarding accessibility, and resources.**
- ***DLP Accessibility Indicator 7*. Accessibility issues are covered in regular course designer training.**

***For Distance Learning Instructors*:**

- ***DLP Accessibility Indicator 8.* Publications and web pages for distance learning instructors include: a statement of the distance learning program's commitment to accessibility, guidelines/standards regarding accessibility, and resources.**
- ***DLP Accessibility Indicator 9*. Accessibility issues are covered in training sessions for instructors.**

For Program Evaluators:

- ***DLP Accessibility Indicator 10.* A system is in place to monitor the accessibility of courses, and, on the basis of this evaluation, the program takes actions to improve the accessibility of specific courses as well as update information and training given to potential students, students, course designers and instructors.**

In summary, efforts toward accessible IT at the UW have benefited from federal funding that supported the development

of a rich set of online resources and the development and implementation of accessibility policies and procedures within the distance learning program. Capacity-building meetings, an active user group, focus on compliance with existing civil rights legislation, involvement of key stakeholder and advisory groups, integration of accessible design within mainstream services, and recognition of those who promote the use of accessible IT on campus have all contributed to increased awareness and application of accessible design.

Lessons Learned

UW, UT–Austin, and UW–Madison have demonstrated a commitment to the design and use of accessible IT and a wide variety of strategies for reaching this goal. Challenges encountered in the process include making decisions about how guidelines or standards should be selected and implemented; increasing general awareness; getting a large, diverse community to work together; securing faculty and administrator buy-in; and overcoming technical problems. The following recommendations are for consideration by campuses that wish to ensure their electronic resources are accessible to all students, staff, instructors, and visitors.

Involve stakeholders. **Engage a wide range of stakeholder groups in policy and implementation processes. Collaborate at multiple levels and engage leaders from different areas of campus that include legal, disability service, distance learning, and IT professionals; relevant advisory groups; and individuals with disabilities. Include high-level management from the IT organization in the design, development, and implementation**

of policies, guidelines, and procedures. Employ both top-down and bottom-up strategies. Increase awareness of the concerns of different groups (e.g., the accessibility needs of students with disabilities and the training needs and time and technology limitations of webmasters).

Research existing policies and practices. **Investigate how other colleges develop and support IT accessibility policies. Learn from their successes and failures. Review existing state and campus policies regarding program and information access to individuals with disabilities and, specifically, accessible technology.**

Make a commitment to accessible IT explicit. **Although having a discrete campus-wide policy on accessible IT may be ideal for some institutions, a broader campus policy mandating compliance with existing legislation (such as Section 504 and the ADA in the United States) can still provide a foundation for promoting accessible IT. In either approach, be sure that policies and procedures address the availability of AT and the design, procurement, and use of accessible technology. Consider separating broad policies and procedures from specific accessible design strategies, since the former may rarely need updates, but the latter will require changes as mainstream technologies and tools used on campus change.**

Set long- and short-term goals. **Have a clear focus from the beginning and throughout implementation steps. Develop goals that campus units feel they can achieve. Take clearly defined steps and celebrate progress, however small, toward improving IT accessibility.**

***Promote guidelines or standards*. Direct campus web developers to guidelines or standards (e.g., Section 508 standards, WCAG, institution-developed standards) that can be used to evaluate the accessibility of technology and guide technology design and purchase. A website with guidance tailored to the campus as well as useful resources can promote IT accessibility within campus units.**

***Develop procedures.* Incorporate accessibility considerations into the development and procurement guidelines of the central computing unit as well as distance learning, libraries, academic departments, and other campus units. Support close communications between the policy makers and service providers (including disability and technology support staff).**

***Provide training and support*. Complement IT accessibility goals, policies, and standards or guidelines with robust services. Offer technology accessibility training in separate courses and ensure that accessibility issues are incorporated into mainstream web design and other IT courses offered centrally and within departmental units. Make technical staff and online resources readily available to support those who influence the procurement, development, and use of technology.**

***Disseminate information.* Be sure that policy and procedural statements are included prominently in information given to students, faculty, and staff across campus. Publicize widely the availability of guidelines or standards, training, and support.**

***Test, enforce, and reward.* Routinely test websites, particularly those of central services and larger units, to ensure that**

accessibility guidelines or standards are applied. Offer feedback and support to units with inaccessible sites. Also consider giving rewards to individuals or teams that make exceptional efforts toward the use of accessible technology.

Evaluate and revise policies, procedures, and resources. **Facilitate regular reviews and revisions of policies, guidelines or standards, and procedures, making sure to include individuals with disabilities in the review and improvement process.**

Conclusion

Technology creates opportunities for everyone if accessibility considerations are made in design, procurement, and maintenance processes. Otherwise, technology can impose unintended and needless barriers to equal participation in academic studies and careers for students, faculty, and staff with disabilities. It is important to develop a campus-wide commitment to accessibility—and a clear acceptance of this as an ongoing effort, not a one-time project. Promising practices employed by the institutions discussed in this article provide examples that could be replicated at other schools. Employing universal design principles as technology resources are created, updated, and purchased can efficiently and effectively reduce obstacles to access.

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In Memory of John Slatin

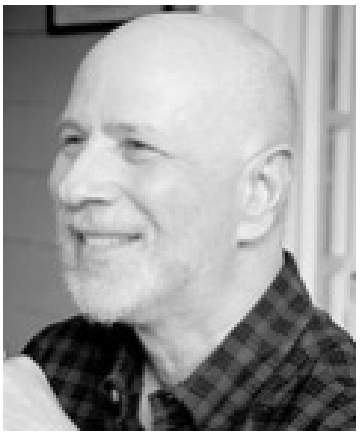
John Slatin, our friend and colleague, passed away before this article was published. John taught at the University of Texas at Austin for 29 years and was director of the Accessibility Institute on campus. He had a tremendous impact on the field of accessibility at both national and international levels. Through his poetic writing, his collaborative work on the WCAG 2.0, and his inspiring teaching, John offered his expertise, guidance, and enthusiasm about accessibility. He made it easy to be excited about the possibilities of accessible IT. A tireless advocate for accessibility, he is greatly missed.

Prof Sheryl Burgstahler, University of Washington

Alice Anderson, University of Wisconsin–Madison

John Slatin and Kay Lewis, University of Texas at Austin

OBITUARY:



Director Prof John Meyer Slatin

Prof John Meyer Slatin, a pioneer in making the Internet accessible to people with disabilities and the author of a leading scholarly work on the poet Marianne Moore, died March 24 at M.D. Anderson Cancer Center in Houston. The cause of death was complications from treatment for leukemia, which he had battled for nearly three years. He was 55 years old. At the time of his death, John was director of the Accessibility Institute, professor of Rhetoric and Composition, and a member of the English Department graduate faculty at the University of Texas at Austin. John traveled internationally to spread the message of making the Internet fully accessible to people with disabilities as a cornerstone of all Web page design. He was consistently featured as a keynote speaker at conferences on the topic of web accessibility. He co-authored "Maximum Accessibility," a leading text on the subject, with Sharron Rush. He led the effort for University of Texas to become ranked as #1 in web accessibility. In 2007, he served

as co-chair of the Worldwide Web Consortium (W3C) on Accessible Design, to lead an international committee of experts in drafting standards for Website accessibility that could be implemented by designers in any language for people with vision, hearing, mobility and other impairments. John's achievements as a professor Department of Rhetoric and English Department included his innovative directorship of the Computer Writing and Research Lab. In 1986, while teaching in the UT English Department, the Penn. State Press published his book on Marianne Moore, "The Savage's Romance," a work that grew out of his Ph.D thesis at Johns Hopkins in Baltimore. John went to Hopkins immediately after receiving his Bachelors Degree from the University of Michigan at Ann Arbor in 1973. After he received his Masters degree and doctorate, he taught at Middlebury College in Vermont for one year before accepting his position in the English Dept. at UT Austin. John recently participated in a dance called "Sextet" created by choreographer Allison Orr. The dance featured two professional dancers, two blind people and their guide dogs. "Sextet" was performed at the John F. Kennedy Center for the Performing Arts in Washington, D.C. in 2006. In Austin, John led a rich life with friends and colleagues from UT, the world of accessible technology, and family members. With his wife, Anna Carroll, he danced frequently with Austin Body Choir, an improvisational world music dance group held at the Austin Yoga School. John grew up in Buffalo, NY, where he was born in 1952. He was the son of Myles Slatin, a professor of English at the State University of New York at Buffalo, and Diana Bluestein Slatin. Along with Anna, John is survived by children,

Mason, and Ledia, and grandchild, Wolf, all of San Francisco; his father, Myles, of Buffalo; and his brother, Peter, of Manhattan. John's longtime guide dog, Dillon, who also is suffering from cancer, lives in Austin with Anna. A Memorial Service will be held on Sunday, March 30th at 2:00 p.m. at the University of Texas Alumni Center, 2110 San Jacinto Blvd. In lieu of flowers, donations may be made in John Slatin's name to VSA Arts of Texas, 3710 Cedar Street, Austin, TX 78705 or Guide Dogs for the Blind, P.O. Box 151200, San Rafael, CA 94915.

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Dear Esteem Readers,

The untimely demise of Prof John Meyer Slatin is a great loss to the community of design. He was person of inner vision and has not only pioneered website accessibility, he has also given a new possible orientation to the web. He was a person who lived from his heart. This is amply reflected in his poetry.

We mourn his untimely demise and pray that God should give energy to all of us to complete Mr. Slatin's unfinished task for the betterment of society.

Editor & Friends
Design For All Institute of India

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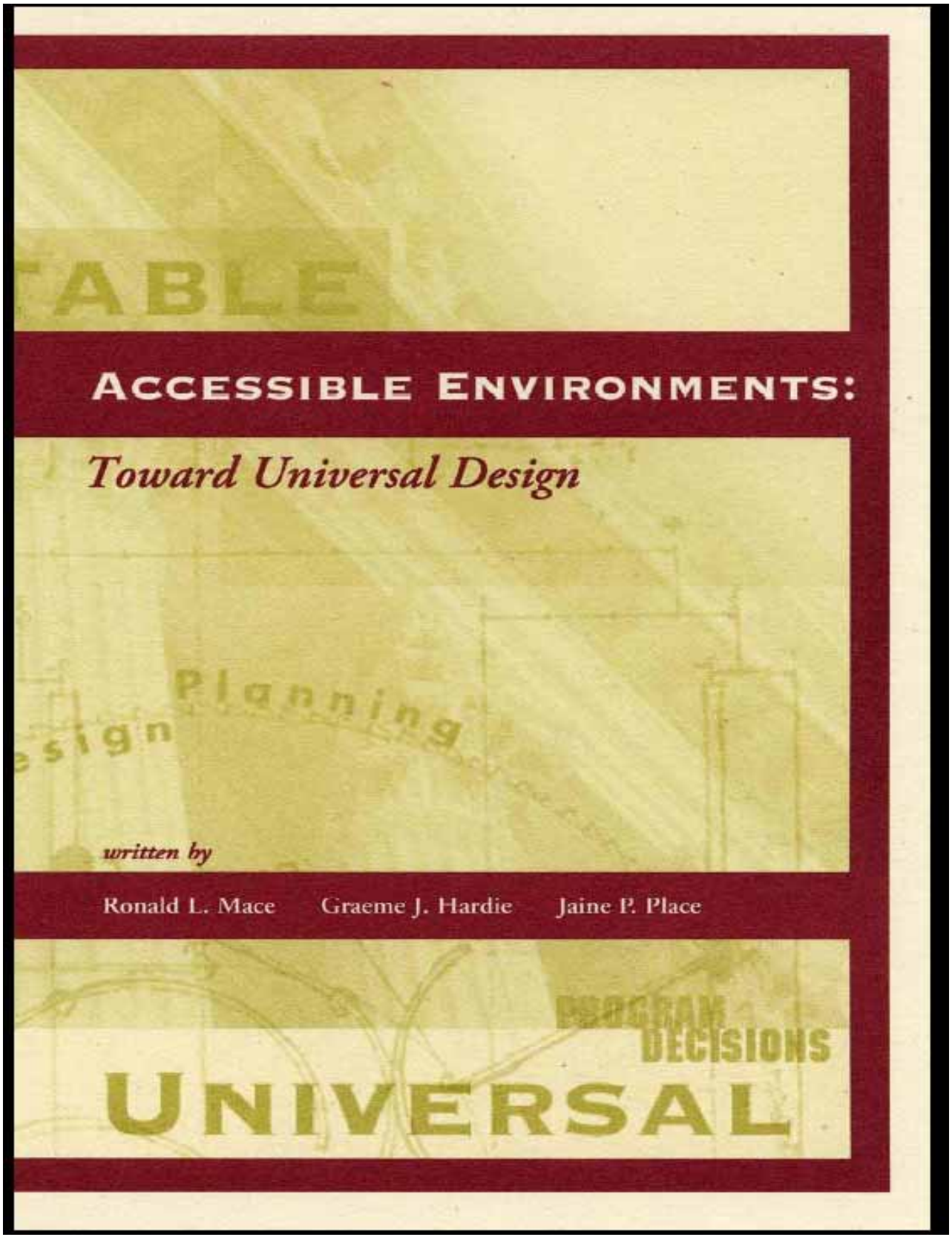
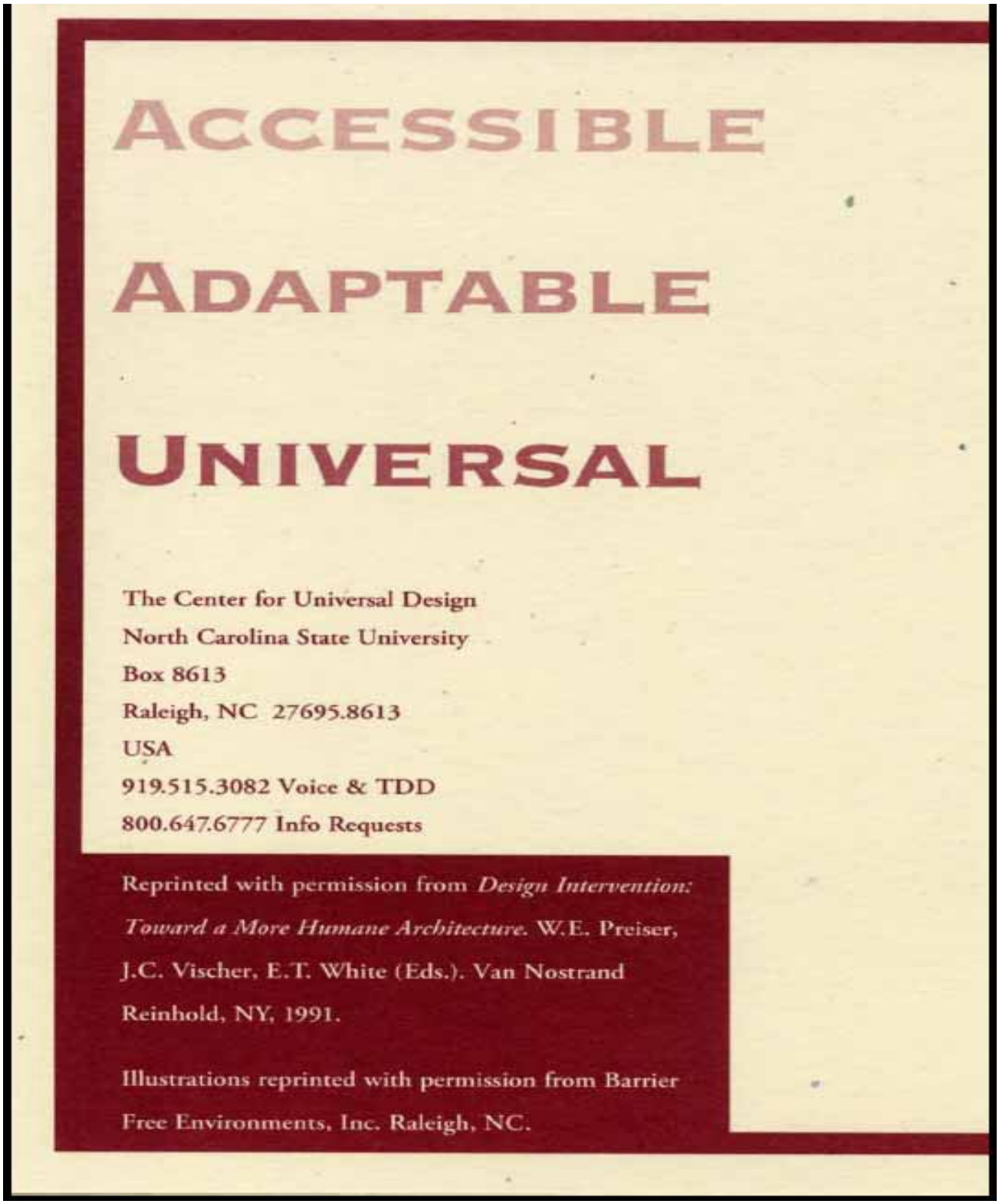
Book Received:





Toward Universal Design , AUED.9.96, Ronald L. Mace, Graeme J. Hardie, and Jaine P. Place, 1996, 44 pp., $5.00

Appeal:
1.

You have been cordially invited to vote for best entries of 'UMO: Boycott Bad Designs' and UMO: International Cartoon Contest.

UMO thanks participants for the overwhelming response for the 4th consecutive year. The number of entris have taken us by surprise: 623 Bad Designs and 610 Cartoons from 60 countries.

http://www.usabilitymatters.org/

The entries....

The bollards are provided to stop the bicycles and bikes from entering a particular area. But it generally stops the physically challenged to have an access to the area.
Submitted by: Easterson Solomon Francis,IIT Delhi,India

Silencers of bikes are heated to extremly high temperatures. They are highly risky as they are placed right near his legs.One should atleast make an effort to design a cover for the silencer.
Submitted by : Ranjit Gomango, IIT kanpur ,

The problem area is the departure time is mentioned in 24 hour format. So if the train is at 12:25 mid-night on 5th October, the time on the ticket is 00:25 dated 6th Oct. Many people have missed trains because of this reason. Even, adding am/pm doesn't help solve the confusion much. The solution might be to

mention both natural language(like 12:25 mid-night on 5th Oct) and 12/24 hour time.
Submitted by : Rahul Kothari, Bangalore, India.

Design for the physically challenged should make it easier for them rather than being an extra strain ;keeping in mind their limitations. The height of the tricycle makes it difficult for the user to climb in.
Submitted by : Ranjit Gomango, IIT kanpur , India

and more...

2.

EU focus on creativity and innovation

On 23 September, the European Parliament gave the go-ahead to the proposal to make 2009 the European Year of Creativity and Innovation. This is both encouraging and challenging for EIDD Design for All Europe, its 23 member organizations and the rest of the innovation community.

The European Year of Creativity and Innovation is a major initiative involving Member States, EU institutions and a wide range of stakeholders. The aim is to exploit and promote creative and innovative approaches and initiatives in different domains of human activity and at all levels. While education and culture will be at the centre of the Year, it also feeds into many other policy areas, such as enterprise, information society, employment and regional policy.

EIDD intends to explore multiple avenues for expressing the Year and its objectives: we will mark our presence on the European creativity agenda. Partnerships have already been decided with the European Capitals of Culture for 2009, Linz and Vilnius, where EIDD will have an active presence with different kinds of events.

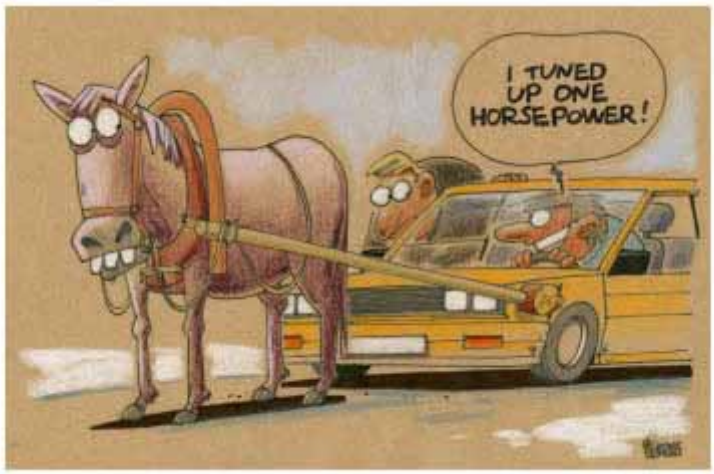
To all EIDD members: Let's make 2009 a great year, showing how creativity and innovation can have real social impact!

3.

INVITATION

UMO: 4th International Cartoon Contest'08

Exhibition of contest entries from 60 countries



UMO cordially invites you to the

UMO: Bad Design Expo'08

623 Bad Designs and 610 Cartoons from 60 countries

From 9th- 14th December2008

Come and share your Bad Design experiences with us
at 4.00pm on 9th December2008
at State Gallery of Fine Arts, Madhapur, Hyderabad, India

Our guests of honor

Mr.Nagesh Pabbisetty,Microsoft
Mr.Satyanarayana Vinjamoori, ADP
Mr.Ed Martinez,Microsoft

USABILITY MATTERS.ORG

www.usabilitymatters.org

Sponsors ADP uiser SureCare

4.
Online Journal of HCI Vistas
Dec. 2008, HCI Vistas Vol-IV
UX Design / Article 9.

Title: Magic Fairy Tales as Source for Interface Metaphors

Author: Dr. Vladimir L. Averbukh

The work is devoted to a problem of search of metaphors for interactive systems and systems based on Virtual Reality (VR) environments. . The analysis of magic fairy tales as a source of metaphors for interface and virtual reality is offered. Some results of design process based on magic metaphors are considered.

To read full article at-

http://www.hceye.org/UsabilityInsights/?p=99

Online Journal of HCI Vistas is an initiative launched for encouragement of UX practitioners. We are grateful to those who have generously reciprocated and extended their valuable support to strengthen this humble beginning.

5.
We have a requirement for a new product for which we need to build a prototype using rapid prototype technology
We have the 3D design diagrams of the product.
What we need is a vendor who will be able to:
1. Recommendation of the materials that need to be used to manufacture
2. Build A working prototype built based on your recommended materials
Can anyone suggest someone who will be able to help me with this?

NEWS:

1.

The Best Design Policies Are Local: A review of the Shaping the Global Design Agenda Conference

Posted by: Mark Vanderbeeken

Photo: Ornella Orlandini | Torino World Design Capital

Review by Mark Vanderbeeken (Experientia) and Marcia Caines (Cluster)

The days after the American presidential election are clearly a period of reflection. Newspapers and magazines are full of thoughtful articles, and conferences seek to define the new agendas and directions for our world to move towards.

The World Economic Forum gathered about 700 global thought leaders in Dubai for a summit on some of the key issues on the global agenda.

An international conference in Turin, Italy, last week had a much narrower focus, and tried to outline what constitutes good design policy.

The event, which was organized by Torino 2008 World Design Capital in collaboration with Michael Thomson, director of Design Connect (London), comes at a time when a major discussion is emerging internationally on design policy and innovation.

Now also the European Commission is looking at design as a tool for innovation, in the hope of creating a shared European design policy, while the Italian Government is working on the same for Italy.

Shaping the Global Design Agenda brought some of the main design policy thinkers and stakeholders together in one room.

Michael Thomson

Photo: Ornella Orlandini | Torino World Design Capital

"This is the first platform [on design policy] where different nations from around the world can share their knowledge, insights and challenges and learn from each other, in order to effect better policies in their countries or trading blocks (EU)," **said the cordial and gregarious Thomson during his introduction.**

"By bringing together many stakeholders within this previously unacknowledged international community of practice, we hope to influence nations to build better design policies that will promote social, economic and sustainable goals, practice and behaviour, will improve societies and not least, will enable the growth of design as a common language for all."

The presentations were aimed at sharing best practices, with presenters relaying their own approaches, both good ones and questionable practices, and with the designers making the strongest and most impactful pleas.
Torino World Design Capital organised in parallel International Design Casa, a series of exhibitions where fifteen countries

showed off their design context in ten amazing venues across the city (provided free of charge by the city), and a handover to the next World Design Capital: Seoul, Korea.

The International Design Casa and the Design Policy Conference are 'signature' events of ICSID / IDA's World Design Capital project and will therefore be repeated in Seoul in 2010.

This article below is not a direct conference report, but a reflection by two observers--Mark Vanderbeeken of Experientia, supported by Marcia Caines of Cluster--who care about design and policy, and are opinionated in their ideas about the matter.

Thanks also to Michael Thomson whose notes were very helpful in compiling this article.

Peter Zec

Photo: Michele d'Ottavio | Torino World Design Capital

Design's Role in Urban Transformation

Peter Zec, the founding chair of the World Design Capital project, was one of the introductory speakers and he brought a distinctive marketing message, which was surprising given the fact that Turin, Italy, as the first World Design Capital, was anything but a marketing project.

According to Zec, ICSID's new initiative can help cities better position themselves, gives them a better image and increased visibility, attracts investors and creative people, improves their quality of life, and will set up new public-private partnerships.

That may all be true, but we were always told that the title of World Design Capital is conferred to cities that use design as a strategic tool in their transformation.

Turin, Italy is a good example of this transformational capacity of cities. The story of Turin is a strong and exemplary one, and it was a strange omission for it not to be told at this Turin conference, especially since it is so instructive for future World Design Capitals, and for design policy in general.

Turin transformed itself not through marketing and image building, but through a concerted and long-term investment in its very infrastructure.

The first stage of this transformation was urbanistic: a new strategic plan set out the future urban development of the city, moved a lot of the public services from the historic city centre to a new boulevard about 1 kilometre west, and stimulated the transformation of old industrial areas into new mixed work/living/entertainment areas. Add to that a new metro system, restoration and pedestrianisation in the city centre and you realise how much the city physically changed.

A second stage, which started a bit later, has been Turin's commitment to culture and the arts, with the city organising a wide range of initiatives, many of which of international standing, which attracted large amounts of visitors and made creative people interested and eager to move to the city.

The third stage is the organisation of major events -- including the 2006 Winter Olympics -- which actually crowned the achievements of the city, rather than created them. This also applies to the 2008 Torino World Design Capital project.

In and by itself this 2008 initiative wouldn't have meant much without the approximately 20 years of strategic planning and activities that preceded it.

The transformation of Turin therefore has been a huge and long-term undertaking, which was done with great competence, and which we -- as Turin inhabitants -- sometimes take so much for granted that we forget to tell this story.

Fortunately we now have people in town like Bruce Sterling, who became excited about the transformational power of this city, and who has been an articulate and thoughtful spokesperson for the story of its change.

It remains to be seen how the city will weather the global economic storm, which is now blowing its ice-cold winds down the Alps, but at least Turin is much better prepared than many other cities that didn't have such foresight and commitment to change.

Song Weizu

Photo: Michele d'Ottavio | Torino World Design Capital

Design as a Lubricant for Industrial Growth

Song Weizu is the secretary general of the Beijing Industrial Design Promotion Organisation. Weizu is not a designer, but a very committed civil servant, and that defined his entire presentation.

His vision was the state vision -- design is a lubricant for industrial growth -- yet it was strangely refreshing to have it spelled out so clearly and to hear a detailed overview of what is actually going on in the Chinese design world, purely in terms of implementation and numbers.

His talk was also revealing. The economic crisis has demonstrated to China that simple production for Western countries is not enough. China wants to create its own products and industrial design is therefore more crucial than ever. They now have 500,000 design graduates, but "we still need to learn." China is working on a design policy and design centres are sprucing up all over the place.

Weizu was not hiding the facts. The good stuff was there, but also the bad: "We are still behind". His honesty was appreciated and made his talk -- given the big numbers of Chinese demographics-- even more powerful.

"We are heading for a quantum leap in the next five to ten years."

Photo: Michele d'Ottavio | Torino World Design Capital

The West is inundated with cheap Chinese design, but China has a wonderful and deeply historically engrained design sensitivity. We just donâ€™t see it very often outside of China.
This will change. The Beijing Olympics were a striking example of what the Chinese can do. Take a look at the website. Check the opening ceremony again. The design was spectacular.
We in the design community often tend to think of the world as consisting of a Western sphere that is superior in design, and China/India as the factory. Weizu's discourse highlights how wrong we are.
How do we engage with the Chinese design culture? How can it become a win-win for both? How can a design policy relate to this?

Human-Centered Design as a Long-Term Investment
One of the strongest presenters was Yrjö Sotamaa, president emeritus and professor at Helsinki's University of Art and Design (recently featured on Core77 and also interviewed on the Torino World Design Capital website).
In a keynote speech, he described the very impressive design innovation strategy that was developed by the Government of Finland.
Sotamaa is a designer and it shows. The man is a passionate Fin. Very understated, very deadpan ironic, and very committed. As the former president of Finland's top design school, he managed the incredible: convince the government to make design a central part of their innovation policy and then convince the three top universities -- the business, design and engineering universities, each with their 100+ years of history -- to merge into a new innovation university: human-centred, project-based, multidisciplinary, English-spoken.

Just begin to imagine the territorial fights to merge the three best universities in any other country, and you start realising this wasn't an easy battle.
Sotamaa knows this. It is a battle won, but not yet over. He has some mental scars. The Aalto University will start up in the autumn of next year. Sotamaa is proud. He should be.
It all started in 1997, when Finland realised that it wasn't prepared for the future, that the competencies of designers were not meeting the requests from the corporate world.
In 1999, Sotamaa and his network of relations managed to get a sentence into Finland's government programme (which really is a high-level policy document) that said: "integrate design into the national innovation system".
Those seven words changed everything, because design suddenly moved from the cultural world (where design was all about aesthetics) to the innovation realm.
The first step was a 30 million euro research project (which had the politically correct name of "design technology programme"); the second a programme of bringing design thinking into companies -- with an emphasis on user-centred design; and now Finland is about to launch the third and most impressive one: the previously mentioned innovation university.
The latest Finnish government programme reflects Sotamaa's success: design is now required to be permanently on the agenda of all Finnish research and economic organisations.
Design in Sotamaa's mind is user-centred design, with user needs and contexts defining the innovation agenda. It is about design for all and design for non-conventional contexts (e.g. healthcare, local politics, etc.).
So the university he helped conceive is one where designers will day in day out work with engineers and business students on developing user-centred solutions within multidisciplinary projects. Aalto University is all about project-based learning.
It is a courageous move for a small country, and one that undoubtedly will inspire other countries and regions as an example to be followed. It will definitely also prove to be one of the foundations of Finland's long-term economic and social wellbeing.

Design Ought to be Bottom-Up and Socially Involved
David Kester (bio) is the chief executive of the UK Design Council. His presentation was unusual in one remarkable

respect. It is the first time I heard a policy person making a user-centred presentation.
Kester explained that he advocated a design-lead approach to policy making, and followed up by introducing four people and their needs: Paul, who is working in the public sector, Caroline, who is a head master, Cheryl who runs a healthcare business, and Pradeep who is in charge of a design company.
The Design Council's approach therefore is all about co-creation with these individuals. This take on co-creation and user-centred design is extremely laudable, and poses a challenge for policy makers: how to integrate participation and user-involvement in a complex and abstract thing such as policy making?
The Design Council, the oldest design organisation in the world, is renowned for spearheading some of the most innovative approaches in design (e.g. service design, sustainable design, design for crime reduction).
Some of the design world's most inspiring people have been working at the Design Council: Hillary Cottam, Richard Eisermann, John Thackara, etc. The Council's public and community engagement is beyond par, and has influenced an entire generation of designers worldwide.
Now these people are influencing design policies elsewhere. Hillary recently had a write-up in the New York Times, Richard is influencing the Belgian government policies, and John is working directly with the North-East region and the city of Saint-Etienne in France (not to mention his many, many indirect influences as author, speaker and event organiser).

The Identity of Design
Ibrahim Al Jaidah, who is the managing director of the 400-person Arab Engineering Bureau in Doha, Qatar, conveyed eloquently and passionately his frustration with the dramatic transformation of his region.
His presentation started off with pictures of Doha in 1950, full of sustainable architecture developed over many generations in an extreme and hostile desert climate. Small windows kept the heat out, and huge air intakes created natural ventilation systems. There were shaded internal courtyards and naturally functioning hot air exhausts.
Then oil came and the Persian Gulf changed dramatically. Now starchitects build their totems without any consideration of what is sustainable or culturally relevant. Developers create new artificial islands, villas with lawns (rather than

courtyards), and glass curtain wall towers facing the 50-degree heat.

Qatar may be a kingdom, but in fact it is a developer-led society. There is no design policy and the Qataris are a minority in their own country.

Al Jaidah pleaded for a rethink. He showed some examples of international architects that had actually reflected on the Qatar context and created buildings that were (somewhat) respectful of that. Architecture and design are cultural instruments, according to Al Jaidah. They construe a cultural identity in people. And in Qatar, this cultural identity is bland and non-reflective of the environment. Qatar is rapidly becoming a no-place.

Al Jaidah's presentation was strong for a number of reasons. Not only was this a man driven by a passionate conviction in his ideas, and a deep sense of social responsibility and ethics, but he also voiced concerns that are by no means specific to that region.

We live in a world where cultural identity is promiscuous and fragile. Design policy has a role not only in protecting that identity, but in finding ways to renew it, to give it a new meaning, a new direction. Just like Slow Food did for agriculture and our dinner tables, we need a new culturally sensitive design policy, that doesn't aim to preserve a pastiche historic identity of a place, but allows a region or city to be invigorated with new meanings and innovative culturally-relevant directions.

Yet, it remains a question if this wonderful, courageous and deeply committed man in Qatar isn't really coming too late with his plea. Qatar and Dubai have hardly anything in common anymore with what they were in the fifties. But Al Jaidah has no choice now but to forge ahead. We hope that he can create a movement, a network, an entity to shape these ideas -- something perhaps that goes beyond Qatar and touches people globally. He seems to be capable of it. The alternative -- becoming a frustrated observer of a home country he doesn't recognise anymore -- is definitely not acceptable.

Perhaps the current slow down, the breaking of the Dubai bubble, will allow him now to advocate his ideas to a more susceptible local audience.

Public Participation in Design for Sustainability

Fumio Hasegawa is an economics graduate of Nagoya City

University, and has been employed by the City of Nagoya since 1975 of which he is now deputy director general.
Hasegawa began his presentation by illustrating the fascinating history of the City of Nagoya, from the construction of its castle 400 years ago, to the devastation of World War II and the 1959 Ise Bay Typhoon, to its remarkable turnaround in becoming a prosperous industrial city, home to Toyota, Brothers Industries and more. It is a city with a strong cultural identity and the will to change.
In 1999 Nagoya launched the "Emergency Announcement for Garbage Awareness," a campaign to reduce waste without having to construct a new landfill on the tidal wetland of Fuji-Higata. To achieve this goal, the City of Nagoya called for public cooperation in a huge recycling operation. The target was to reduce waste by 20%. They managed to reduce it by 60%, and the preservation of the tidal wetland was ensured. This successful campaign has made action on a more sustainable future a priority for the city and its citizens.
Of course, this required the tenacity and efforts of city actors like Hasegawa with the support of local government and industries. Yet the collaborative approach in involving the public was quite innovative. Hasegawa explained that it is important to plan how to deliver information to the public, and not hide the problems but to explain them.
The City of Nagoya provides an excellent example of a win-win approach, where the combined efforts of citizens, private organisations, and public entities can, in the face of a crisis, lead to more sustainable behaviours, social well-being and a more promising future.

Shaping Design Policies
So what is a good design policy? We heard the Finnish example. Italy, as the design nation par excellence, also had something to say.
Andrea Granelli is a dynamic person that I got to know at Interaction Design Institute Ivrea, as he was the former CEO of Telecom Italia Lab. Granelli is the son of a well-known and well-respected Italian politician. A substantial section of his website is devoted to his father. Andrea is now a consulting advisor for the Italian Minister of the Economy.
Granelli has an eclectic background: he followed a course in classical studies and a degree in computer science and completed his education with a post-graduate specialization in diagnostic methods in psychiatry. He ended up in marketing,

head of a major research institute, and is now a dedicated consultant.

In his presentation, Granelli conveyed the ideas of Claudio Scajola, Minister of Economy, whom he was representing. But I couldn't help noticing Granelli's commitment to innovation (the "new design frontiers") that he is respected for: design in his mind is also service design, experience design, interface design, and design as a strategic tool for business innovation.
What else is Italy doing in this direction? How is Andrea's personal philosophy influencing Italian design policy? What could be the distinctive Italian contribution to these fields? What is the future Italian design policy, currently in the making?
We are curious and eager to give a hand. Perhaps the way to find out is also to look beyond Italy, e.g. at what the European Commission is aiming at.
Peter Dröll is the EU's head of Innovation Policy Development and the EU is actively seeking to develop a shared design policy framework.
This breakthrough development was apparently in part triggered by recent discussions that Michael Thomson, in his capacity as the current President of BEDA, the Bureau of European Design Associations, conducted with José Manuel Barroso and Günter Verheugen, respectively president and vice-president of the European Commission.
According to Thomson, the very top of the EU is for the first time taking design very seriously as a strategic and tactical component of innovation policy, and as a tool to increase Europe's competitiveness and sustainable growth. This EU commitment will definitely allow Europe to better protect its position as a world design leader.
The EU innovation policy has up till now, said Dröll in his Turin speech, been largely mainstreamed in European policy and through the regional funds 85 billion euro is applied to research and innovation.
The European Commission is now seeking to evolve the next generation innovation policy approach, and to include alternative models than only R&D interventions. Open Innovation and Mass Innovation could be valid approaches, since more and more users rather than manufacturers drive innovation.
Another approach will be to put society (and societal needs) at the heart of the innovation policy, with design and designers

acting as agents of change. Dröll pointed out that it might be good to make a link between innovation policy and the UN Millennium Goals or even initiatives such as micro-credits.
Even though some people might see such an approach as belonging to social policy, it is in fact innovation policy. After all, it is the social agenda that provides the strongest rationale for action at the EU level, and where there is the greatest need for public rather than market intervention.

In fact, Dröll said, there is no consensus yet on what design means in the EU context, and a process is needed to generate such consensus.
Design clearly has a key role to play in this next generation innovation policy, and European policy should therefore support design as a tool for innovation.

The European Commission will shortly issue a consultation document on design that will be published as what is technically called a "Staff Working Document" during the European Year of Creativity and Innovation in 2009.
This document will provide analysis and economic evidence, describe the differences in addressing design as a tool for innovation, and address methodological issues to make it easier to measure and compare design's impact on European economies. It will also aim to raise design awareness and facilitate dialogue between the member states.
With this document the Commission hopes to achieve the consensus that Dröll was referring to. Only then the EU can elaborate effective European policy on design as a tool for innovation that could guide EU Member States on national design promotion strategies.

Discussing Economy, Society and Systemic Global Challenges
Three panels accompanied the conference and went from current practice ("the comfort zone") to some of the biggest global challenges mankind is facing.
Introducing the first panel--on design and economy--the panel chair Jean Schneider of APCI (French design support organisation) inquired about effective policy models, that encourage the use of design by business, and SMES in particular, that are adaptive to the changing innovation paradigms, and that could also promote non-technological, user-centred innovation.

Photo: Michele d'Ottavio | Torino World Design Capital

Reacting to Schneider, Giselle Raulik-Murphy of Design Wales stressed that countries need to come up with their own models, rather than copying the ones implemented elsewhere, as local contexts and needs are often quite different.

Jan R. Stavik of the Norwegian Design Council has been very effective in setting up a national design policy, but underlined that senior civil servants and politicians are often very unfamiliar with the innovation potential of design and Stavik advocated the need for education.

Two unusual design policy models came from Asia.

Mika Takagi of the Policy Office for Design of the Japanese Ministry of Economy, Trade and Industry is conducting a three-year plan called the 'Kansei Initiative--from 'Manufacturing' to 'Storytelling''. This significant programme will promote design as a new competitive advantage of Japanese industry, in order that manufacturing can satisfy not only the material but also the emotional fulfillment of users.

Sun Yixian of the Art Design College of China highlighted the potential of design for crafts, which in rural China is still a very important and culturally rich tradition.

The second panel debate--design and society--sought to illuminate design's relevance to societal issues such as ageing populations and social exclusion, and explored what design strategies might catalyse better cities, better healthcare, and better services for communities and individuals.

Photo: Ornella Orlandini | Torino World Design Capital

Ezio Manzini [pictured above] of the Milan Polytechnic kicked off with a presentation on how design can change consumer behaviors and create sustainable approaches to the everyday.

Photo: Ornella Orlandini | Torino World Design Capital

Sustainable innovation was also very much on the mind of Leimei Julia Chiu of the International Design Centre in Japan, whereas two other panellists -- George Poussin of UNESCO's Creative Industries section and Robert Jan Marringa of Design Connection Brainport, Eindhoven, The Netherlands -- very much stressed the role of creativity in social change.

Dorenda Britten of New Zealand's designindustry, a consultancy company designed to bridge the gap between creativity and business implementation, came back to the theme already introduced by Jan Stavik earlier: education. Also the business world needs a better understanding of design and Britten pleaded for more design education in business schools.

Joachim Spangenberg of the Sustainable Europe Research Institute chaired the final panel--on design and complexity--that sought to explore how nations can work together to build networked design policy in order to address some of the systemic global challenges we are facing as a planet.

Spangenberg asked some very simple, yet very compelling questions. Are we prepared for life after growth? How to live a dignified life without the veil of the growth ideology?

Sustainable design thinker Ezio Manzini highlighted the power of scenario thinking, to imagine how we can make our world differently, whereas Ibrahim Al Jaidah continued on the lines of his earlier keynote speech, by stressing that we need to redefine ways in which policies can be created to make future development address these challenges.

Steinar Valade-Amland, who is the director of the Association of Danish Designers, emphasized the power of a design approach to addressing such problems, as addressed in the association's manifesto, "The increasing vital role of design."

The conference also saw the handover of the title of World Design Capital from Turin to Seoul, as well as the launching of the bid process for the World Design Capital 2012.

Photo: Michele d'Ottavio | Torino World Design Capital

Some Concluding Thoughts

The developed world has a strong responsibility in sharing knowledge, resources, responsible behaviour and know-how with emerging countries. But our track record isn't that good. Our "We know best, follow us" attitude has left indelible scars on society and the planet.

How can the West avoid making the same mistakes again? How will emerging underdeveloped countries avoid making them too?

Even the scale of the job is enormous. As Yrjö Sotamaa pointed out, Finland's population fits into a quarter of the city of Shanghai.

While in Europe we are developing exciting new innovative user-centred projects such as those demonstrated by the UK Design Council, other countries are just getting to terms with the fact that design is a priority on their policy agenda. Song Weizu clearly said that until yesterday design wasn't exactly a priority on the Chinese policy agenda as other matters were at stake.

The ten countries that will contribute most to world population growth over the next 30 years are India, China, Pakistan, Nigeria, Ethiopia, Indonesia, United States of America, Bangladesh, Zaire, and Iran - in that order! *(Data from the International Institute for Applied Systems Analysis--IIASA)*.

The changes there are bound to be so dramatic that we do need to design a democratic, global dialogue with and between these cultures and societies, so that they can all learn from each other and from some of the best practices worldwide.

Creating good design policies is not a simple thing to do. As Giselle Raulik Murphy of Design Wales so pointedly said, we don't need a one-size-fits-all design policy with one country copying what goes on in another.
We don't need global design policies. Design policies need to be locally relevant, but they also need to take into account local needs, local cultural knowledge and sensitivity, and local infrastructures.
The Turin event was clearly just a (very good) beginning, with much ground still needs to be covered.

Photo: Michele d'Ottavio | Torino World Design Capital

Yet, this conference, which was not so well attended (let's continue being honest), was definitely a milestone and Europe's momentum is good. Our final compliment goes to the organisers, Michael Thomson and his associate programme director Christine Losecaat, the Torino World Design Capital team, and to Zup Associati, the design team who gave the conference and the conference materials such a fresh, consistent and inspiring look and feel, with a distinctly Italian flavour.

Reading Up

If you are interested in design policy, check out the Design Policy group on Yahoo!, the work by Elizabeth Tunstall, and the SEEdesign network. The organisers of the Turin conference also assured me that all the materials of the Turin conference will eventually be posted online, in audio or text form, and we will let you know when this is the case.

2.

Tokyo design week, 2008

October 30 - November 03

100% design Tokyo

the 2008 Tokyo design week saw the 4th year of 100% design Tokyo which again hosted the design boom mart.

Other events included design tide and numerous installations on show across the city's stores, galleries, hotels and museums.

here are some of our highlights

3.

Enabled & Empowered

Shivani Gupta and Noida Deaf School, among the 10 recipients of the Helen Keller Award, have encouraged the differently abled every step of the way

Medha Chaturvedi | TNN

If the list of all those who received the Helen Keller Award this year is any indication, society and private organizations are increasingly becoming sensitized to the needs of the differently abled. Instituted in 1999, the Helen Keller Awards honour 10 individuals and institutes every year for their ''exemplary work towards helping disabled people find positions of equality and dignity in the workplace''. Times City met two of the recipients to find out the extent of the difference they are making.

A wheelchair user herself, Shivani Gupta is the co-founder and director of AccessAbility. The organization provides consultancy to corporate looking to hire people with disabilities, advises them on appropriate architecture, as well as runs a human resource portal for prospective employers and job-seekers.

With degrees in hotel management and architecture, and a PG degree in inclusive environments from UK, Gupta believes in a three-way approach: include, enable and empower. ''I started Access-Ability two years ago with my friends Vikas Sharma, who was my classmate at the inclusive environment course, and Sachin Verma. Our primary aim is to provide a one-stop place to corporate who want to include people with disabilities in their organizations. For this, we work in improving the attitude of people and resort to one-on-one approach,'' she said. The company's job portal is called www.employability.co.in .

Accessibility has also started an online travel guide for tourists with disabilities and have listed over 2,000 places in Delhi which are disabled friendly. ''This website's connecting link is provided on the Indian tourism department's incredible India website,'' she said.

Gupta received the award in the individual category on

Tuesday.

The Noida Deaf School, which will be receiving the award in the category of corporate, was started in 2005 by Ruma Roka with just five students. Now, it has a strength of around 350 students who attend various courses free of cost.

''A few years ago, I felt the need for someone to teach hearing impaired people to be socially acceptable. So, I learned sign language and started doing volunteer work. In 2005, I started this school to train deaf people. Our training is very specific and employment oriented,'' said Roka. She added that most of the instructors in her school were deaf and hence their work set a positive example for the students. The school is partly funded by a Mumbai-based organization, DEEDS and partly by supportive friends, said Roka. On winning the Helen Keller Award, Roka said she was delighted. ''It is like a validation and recognition of my work. More than anything else, it is a motivational factor for my students to work harder to become socially acceptable,'' she said.

Six awardees in the individual category

Hari Raghavan | SOLUTION SPECIALIST (BANKING) IBM, MUMBAI

Visually impaired, Hari completed his B.Com (first class) from Mumbai in 1997. He is perhaps the only visually impaired MBA specializing in marketing. Always rated as an outstanding performer in his career, Hari helps raise funds for a Bangalore-based NGO, EnAble India which focuses on employment of disabled persons. He also provides training to visually challenged students in areas like marketing and entrepreneurship

Atul Ranjan Sahay | SENIOR MANAGER (IMPROVEMENT INITIATIVES) AT TATA STEEL, JAMSHEDPUR

Atul lost his sight in the left eye when he was 14. He graduated with honors in economics from St Anthony's College, Shillong in 1986. In 2003-04, he became the first person with visual impairment to obtain executive diploma in general management from XLRI. He is instrumental in rehabilitating 20 visually impaired persons in Jamshedpur and helping 35 students complete their secondary and higher education

Amutha Shanthy S | MANAGING TRUSTEE, THIYAGAM WOMEN

TRUST, MADURAI

Shanthy was born without her left forearm. In 2005, she started the trust to empower physically challenged women from rural areas to create opportunities of self employment. In three years, the trust has trained 57 physically challenged women. At present, there are 310 students learning various skills from the trust

Shilpi Kapoor | FOUNDER DIRECTOR OF BARRIERBREAK TECHNOLOGIES AND NET SYSTEMS INFORMATICS, MUMABI

As a Microsoft certified systems engineer in web content accessibility guidelines, Shilpi specializes in teaching concepts and assisting tools for the visually impaired and founded the first ever computer training centre at the Indian Association for the Visually Handicapped in Mumbai in 1999

Dr Radhike Khanna | VICE-PRINCIPAL OF SPJ SADHNA SCHOOL, MUMABI

A PhD in education, Radhika devoted 25 years of her life to the cause of empowering people with disabilities. She created the first and only five-year polytechnic course in the world that guarantees jobs for disabled and mentally challenged individuals. She has placed over 1,000 mentally challenged persons in productive roles in society and has been called to offer training in Nigeria, Sri Lanka and Kenya

Ganesh Chandra

Rajesh Mehta

4.

Walking assist device by honda

if you thought the segway was the future of odd looking transportation, honda recently unveiled its second walking assist device. the strange looking gadget is designed to support the user's body weight, reducing the weight load on their legs. the machine consists of a seat, frame and shoes. the user simply moves as normal and the machine reduces the load on their knees and ankles. the unit weighs 6.5kg and has two battery powered motors which will last for 2 hours of use. honda has already begun testing the device at one of its factory's.http://www.honda.com

5.

Design Innovation Forum 2008

It was held on Tuesday November 25th at the University of Tokyo. It was the second times this year and I continuously produced it.

In the forum, our AUDN member performed the Panel Discussion.

Each of members talked about the situation of the Universal Design in each country and then, we discussed about "how we should work together on the UD in Asia from now on".

6.

2009 to be the European Year of Creativity and Innovation

The European Commission welcomes the news that today the European Parliament, meeting in plenary session in Brussels, has, by adopting its report, supported the Commission proposal that 2009 be designated as the European Year of Creativity and Innovation.

In the parliamentary debate before the vote, Mr Ján Figel', Commissioner for Education, Training, Culture and Youth, explained how "*education systems are subject to competing pressures: they have to face a growing range of challenges, as they equip young people with the knowledge, skills and attitudes they will need in our rapidly-changing society and economy, while also continuing to meet traditional educational requirements.*"

The Commissioner reiterated that "*education can best meet these competing challenges by remaining true to itself and fostering young people's broad personal development. It must allow enough time and space for their innate talents and creativity to develop in a balanced way, combining ever-more important 'soft' competences, such as a sense of initiative or intercultural skills, with the so-called 'hard' skills in specific subject areas like mathematics and science.*"

European Year of Creativity and Innovation is a major initiative involving Member States, EU institutions and a wide range of stakeholders. The aim is to exploit and promote creative and innovative approaches and initiatives in different domains of

human activity and at all levels. While education and culture will be at the centre of the Year, it feeds into many other policy areas, such as enterprise, information society, employment or regional policy.

Each Member State will designate a national coordinator who will be responsible for the Year's activities at national or regional level. The Commission's Directorate-General for Education and Culture will coordinate the activities at the European level. Details of Year, including a rolling programme of events, will be made known through a website which the Commission will be launching soon.

No additional budget line has been provided, as the aim is to use existing resources for a wide-ranging awareness-raising effort and policy debate at European, national and regional level. This debate will help to shape Europe's agenda for cooperation in the field of education and culture over the coming decade.

Pending the launch of a specific website, interested organizations and stakeholder groups can request additional information from the following email address:

eac-EYCI2009@ec.europa.eu

7.

Armless! She lets her feet do the flying

A 25- YEAR- OLD woman with no arms has become the first pilot ever to fly a plane using only her feet.

Jessica Cox, of Tucson, Arizona, has amazed family and friends by fighting her disability.

The psychology graduate has qualified as a pilot after three years of lessons in an adapted light aircraft — instead of the usual six months.

Courageous Cox can also write, type, drive, brush her hair and use a phone simply using her feet. She is also a taekwondo black belt.

“I never say, ‘I can’t do that.’ I just say, ‘Do it’. Flying is the most fantastic feeling in the world,”' the Cox said after her maiden flight.

Being born without arms didn’t keep Cox from meeting the challenge of earning a Sport Pilot certificate. The Able Flight Scholarship winner had passed her check ride this October after several months of training with instructor Parrish Traweek in his Ercoupe 415C. With its unique control system, the Ercoupe proved to be the right airplane for her (she does not use prosthetic arms).

With one foot manning the controls and the other delicately guiding the steering column, Cox soared to achieve a Sport Pilot certificate. Her certificate qualifies her to fly a light- sport aircraft to an altitude of 10,000 feet.

“She’s a good pilot. She’s rock solid,” said Traweek, 42, the flying instructor at San Manuel’s Ray Blair Airport.

“ When she came up here driving a car,” Traweek recalled, “ I knew she’d have no problem flying a plane.” Cox, unwrapping a piece of chewing gum with her toes nearby, was clad in a yellow Tshirt sporting a stick figure with truncated arms beneath the phrase: “Look Ma, No Hands.” Most who meet her, especially on her motivational speaking circuit, agree. She’s spoken at hundreds of gigs, where she shares her upbeat philosophy and incredible story.

Doctors never learned why she was born without arms, but she figured out early on that she didn’t want to use prosthetic devices. “Instead of investing so much time in being normal,” she said, “ I realized it was more important to celebrate my

difference." Her feet have become so agile that an X- ray showed her toe joints looked more like fingers.

Agencies
8.

Design is China's best chance for future growth

Chinese contract manufacturer and injection molder Guangzhou Echom Science & Technology thinks it's found one way to combat the plummeting sales and mass layoffs hitting Chinese factories these days – focus on industrial design.

Echom, which employs 5,000 and has about 100 injection presses, believes that emphasizing industrial design improves quality and gives it an advantage in the brutally-competitive world of making components for consumer electronics products. Chairman Xian Ran, who began his career as an industrial designer, describes design as the "engine" of the company.

That approach, using design as a business strategy, took centre stage at a recent conference in Guangzhou on industrial design capabilities of small and mid-sized Chinese manufacturers.

The conference, held as part of Guangzhou Design Week from 1-5 December, included talks by Echom and other companies, along with presentations from professors who have studied the industrial design capabilities of local firms.

Design is not a cure-all for every company or an easy strategy to implement, though, and experts said too many Chinese firms mistakenly think it means only focusing on superficial elements like making a product look better.

Instead, conference speakers said, design should mean looking deeply into understanding consumer needs as a way to improve product development, leading to more profits.

Tong Huiming, the head of the College of Design at the Guangzhou Academy of Fine Arts, told the conference that the global financial crisis and rising costs in China are posing serious challenges for the country's economic model for the past 30 years – exporting and serving as world's low-cost manufacturing workshop.

Competing on price has been the traditional strategy of manufacturers in the South China region around Guangzhou, Tong said, but Chinese firms should instead look to their own innovation and design for future growth.

Tong and an industrial design professor from Hong Kong Polytechnic University, John Heskett, expect to complete a study in mid-2009 looking at how 25 South China small and medium-sized manufacturers use industrial design, and offer recommendations to other local firms interested in the strategy.

Moving into design is crucial because that is where the profits are, Tong said.

Only a very small portion of the value of a product is in the manufacturing, where China has thus far focused, he said. Using the Apple iPhone as an example, he said most of the value, from design, marketing and branding remains in the hands of firms in developed countries.

Tong said industrial design capabilities are improving in China, and he said it is part of a government policy in Guangzhou and Guangdong Province to upgrade the capabilities of local manufacturers.

The toy and furniture industry in South China have been particularly hard hit, and companies need to change strategies, he said.

Echom's Xian said in an interview with Plastics News that his company has seen competition starting to develop from lower-cost locations like Vietnam, and that is also pushing the company to do more with design.

The company wants to develop its own branded products, although it thinks it will take several years to do that, Xian said. Echom will develop niche products that do not compete with its existing customer base, he said.

Xian worked as an industrial designer at Chinese TV and mobile phone maker Konka Electronics Group in Shenzhen before taking various executive posts at Echom starting in 1996. He said developed economies like Germany, Japan and the US have long focused on industrial design.

He claims design has allowed his firm to weather the global financial crisis better than most Chinese competitors, with only a handful of layoffs and a very small decrease in sales.

"We provide unique design, so those products are better," he said. "Design is the engine of our company."

An official with a Chinese firm that recently established a design department said made-in-China design faces hurdles, however.

Li Xiao Yan, manager of the Creative Center at Guangzhou Shiyuan Electronic, said Chinese designers may have less knowledge of broad topics than foreign designers, with more of a focus on one specialty, and tend to have traveled less, limiting exposure to other ideas.

Chinese designers also do not have as much intellectual property protection for their work as foreign designers, she said.

Shiyuan has begun employing European designers, and Li said it has made her aware that Chinese designers need to work harder to bridge the gaps in capabilities.

Chen Wen-Long, the president of Taiwanese design firm Nova Design, said in an interview with Plastics News at the conference that the intense price competition in China's domestic market hurts design development, because consumers don't often shop for quality.

Hong Kong Polytech's Heskett said that his study of design capabilities of the local small and mid-sized enterprises has convinced him, however, that many Chinese firms are investing a lot of time and money in using design to move up the value chain.

"What has surprised me is there are some OEM companies that are really making strong efforts to break out of that dependence on overseas clients and they are trying to use their experience to develop their own products, their own brands, and essentially to gain control of what they do," said Heskett.

Still, he said that many small and medium-sized Chinese companies are not well-positioned to use design. Top management too often regards design as a cost, used only to make products look better, and designers may not be capable of doing more.

"The biggest problem is changing management attitudes to design," he said. "Most [Chinese small and medium-sized enterprises] are not well equipped because of this management deficit, and because designers are not equipped to take on the responsibilities and decision-making that comes with a managerial role."

*** Steve Toloken is staff reporter at Plastics News.**

9.

Arvind Prabhoo realized that the basic problem of disabled people is that in our society we do not see enough of them in the mainstream. And that is because of a serious lack of the travel infrastructure needed to be part of the mainstream, Whether for education, work, even entertainment. We need to get these people out there.

Prabhoo's plan now is to take the idea forward in a big way, and start the service in cities like Pune, Delhi, Chennai, Hyderabad . The Access 4 All website says it is the first wheelchair accessibility van service in Mumbai, with a pick-up and drop facility and tieups with airports and Mumbai hotels.

To know more about the vehicle or to contact Arvind Prabhoo, visit www.access4all.co.in or dial their toll free number, 1800-22-42-55.

Program & Events:

1.

www.tiems.org
www.tiems2009.org

TIEMS 16th Annual Conference
June 9th – 11th 2009
Istanbul, Turkey

LET'S MEET WHERE THE CONTINENTS MEET

New Methods to Manage the Intercontinental Emergency Situations

2nd CALL FOR PAPERS / POSTERS / EXHIBITORS / SPONSORS

You are invited to visit the only one city which is built on two continents, Istanbul, Turkey, for the 16th annual TIEMS conference on:

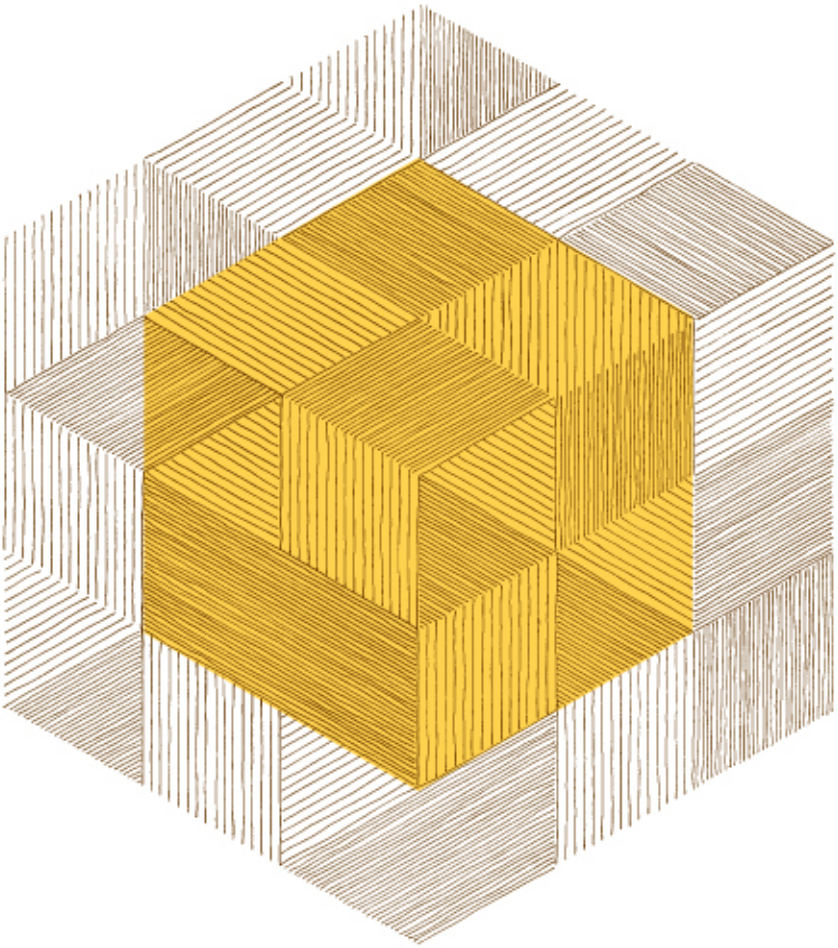
June 9th – 11th 2009

Istanbul Technical University

Süleyman Demirel Cultural Center (SDKM)
Maslak, İstanbul, Turkey

2.

DEADLINE: JAN 16, 2009 STUDENT DEADLINE: JAN 30, 2009 ENTER NOW!



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ADC88

About ADC

The Art Directors Club is the premier organization for integrated media and the first international creative collective of its kind. Founded in New York in 1920, ADC is a self-funding, not-for-profit membership organization whose mission is to connect, provoke and elevate creative visual communications professionals around the world. It focuses on the highest standards of excellence and integrity in visual communications for the industry, and encourages students and young professionals entering the field. ADC provides a forum for creatives in Advertising, Design, Interactive Media and Communications to explore the direction of these rapidly converging industries.

The Art Directors Club 106 West 29th Street New York, NY 10001 212.643.1440 www.adcglobal.org

TAXI Design Network is committed to supporting design excellence and important initiatives within the global design industry towards creative professionals worldwide. Visit TAXI Design Network at http://www.designtaxi.com

3.

All India Senior Citizens Confederation

B-8/602, Kaveri, Safal Complex, Sector – 19A
Nerul, Navi Mumbai – 400706
Phone – 022-27714241

Seminars/2008/01

November 07, 2008

Subject: Request to be a Resource Person in the One-day National Seminar on

Role of Assistive Technologies in the Life of Senior Citizens at the Chatarpur Temple Complex, New Delhi, on December 24, 2008

Dear

The All India Senior Citizens Confederation Conference (AISCCON) is a national networking and advocacy body working for the interests of Senior Citizens in India in areas of their right to life with security and dignity, economic security, health security, shelter security, and participation in local, community, area and national development. Among other events and activities, the AISCCON organizes an Annual Conference (that attracts participation of some 700 delegates from different parts of the country) with focus on one or two themes with a view to creating both a networking and an

advocacy base for the rights of the Senior Citizens. The Annual Conference provides an opportunity to both the participating Senior Citizens and other members (who are unable to participate in the Conference) to articulate their concerns and submit petitions and plan programmes for more meaningful responses to the identified challenges.

The 8th National Conference has been planned in collaboration with the Senior Citizens Council of Delhi will be held on December 23-24, 2008 at the Markandeya Hall in Chatarpur Temple Complex in New Delhi. As part of this Conference, we propose to organize two National Seminars – National Seminar on Protection of Life and Property of Senior Citizens in India (December 23, 2008), and, National Seminar on Assistive Technologies in the Lives of Senior Citizens in India (December 24, 2008)

The one-day National Seminar on the subject of Assistive Technologies in the Life of Senior Citizens will examine issues relating to assistive technologies that help cope with physical deficit, sensory deficit and cognitive deficit in the lives of Senior Citizens. The issues include

1. Awareness concerning Assistive Technologies among users, medical professionals, and manufacturers influencing demand patterns,

2. Access and affordability of the various assistive technologies, and

3. Initiatives towards Elder- friendly Assistive Technologies in Home and Market/Street-settings.

We would like you to consider our request to be Chairperson/resource person in the session on

The Organizing Committee of the Conference would like you to speak on Design issues in Assistive Technologies for Senior Citizens on December 24, 2008 at 2.30 PM.. We would appreciate it very much if you could agree to write a paper on Design Issues relevant to the lives of Senior Citizens; we would like to include this paper in the volume on the subject that we propose to circulate it during the Conference.

We do hope that you would give us the benefit of both your presence and of your wisdom.

Sugan Bhatia

4.

Winter School on Interactive Technologies

Supported by EPSRC Network and HP Labs India

EPSRC
Engineering and Physical Sciences Research Council

2-3 February 2009
Bangalore, India

LABS hp

Interactive Technologies for the End-user
UK - India Network on Interactive Technologies

Aim: The main aim of the Winter School is to quickly and effectively create a shared understanding of the state of the art in interactive technologies among the Network members from India and the UK.

Additionally, the school will also help introduce basic concepts of Human Computer Interaction to members who are not familiar with this particular discipline. The winter school will also foster working relationships between the various members.

Background

The technological requirements of future societies (both in the UK and in India) are increasingly more interactive as is reflected in the diversification of the technology market over the past 5 years with the arrival of a plethora of interactive technologies (like Photonic textiles and $100 laptops) and interactive personalised web-based services (like Facebook and Orkut). Much of today's research in interactive technologies lacks a tight coupling between technology innovation and end-user needs.

To address some of the challenges involved and identify opportunities for collaborative research between India and the UK, we have set up the UK-India Network on Interactive Technologies (UKINIT) for the end-user. UKINIT is funded by the Engineering and Physical Science Research Council (EPSRC) in the UK and has support from HP Labs (Bangalore and Bristol), HFI India, and Vodafone UK.

About the Winter School

The Winter School, an initiative from UKINIT, will run for two days and build a shared understanding of the state-of-the-art in Interactive Technologies for the end-user, bringing together industrial and academic researchers from both India and the UK.

The main aim of the Winter School is to share knowledge and experience between the attendees and to foster tighter links between the various research communities. The intimate size of this event (limited to 25 participants) will provide an ideal setting to exchange research findings and establish connections for stronger collaborations.

The two day Winter School will comprise lectures and hands-on group work. Lectures will cover research topics such as haptics and multi-touch interaction along with pragmatic issues, including opportunities for funding research in these areas.

The Winter School will take place on 2nd & 3rd February 2009, at HP Labs in Bangalore.

About the Organizers

The organizing committee consists of:

David Benyon - Napier University, UK
Steve Brewster - University of Glasgow, UK
Alan Dix - Lancaster University, UK
Matthew Jones - Swansea University, UK
Sriganesh Madhvanath - HP Labs India
Sriram Subramanian - University of Bristol, UK
Rama Vennelakanti - HP Labs India

The team brings together diverse and complementary strengths in designing interactive technologies.

The organizers are experts in multi-touch interaction, multi-modal interaction, mobile devices, design, modelling and HCI education.

David Benyon and Alan Dix are both lead-authors on major textbooks for teaching the design of interactive systems and Human Computer Interaction.

For more information please visit http://www.ukinit.org

5.

Free leadership training for designers Location:
UK-wide

The UK Design Skills Alliance has six free places for senior executives in the design industry on a pilot programme developed by Ashridge, the UK's top business school for tailored executive education, in partnership with the Cultural Leadership Programme.

The programme has been designed to help leaders in the creative industries cope with a changing marketplace and an uncertain economic climate by working through contemporary business leadership challenges.

You'll have the chance to hear the latest thinking in leading innovation and change, and get the perspectives of high-profile speakers working both within and outside the creative industries. You'll be mixing with senior executives within the music and advertising industries, and given access to the same quality of support as counterparts in other areas of business.
The programme starts in March 2009 with an application deadline of 15 January 2009.Further information
To apply go to www.culturalleadership.org.uk

Find out more about the
Good Design Practice campaign from the UK Design Skills Alliance
Get involved in the debate
Design students, university professors and the design industry share their thoughts on how designers can get the skills they need to succeed.
Read what they say and share your thoughts
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6.
The Srishti School of Art, Design and Technology,
We invite you to our 2008 Graduation Exhibition – Gamut.

6 December - 11 December 2008

at
Alliance Françoise de Bangalore
No.108, Thimmaiah Road
Vasanthanagar
Bangalore 560052
7.

Universal Design Award 09
Universal design GmbH, in partnership with iF International Forum Design GmbH, announces the universal design award 2009.

Now in its second year, the universal design award acts as a communication tool to target businesses, researchers and the political community.

The competition is meant to not only sensitise the public to the topic of universal design, but to invite the public to actively participate in deciding which entries promise the greatest possible benefit for their target audience.

The competition is open to product designers, graphic designers, manufacturers, service providers and service designers, architects, and interior designers.

Designs must demonstrate that they are accessible, flexible, intuitive, safe, affordable and sustainable.
Registration deadline is December 15, 2008.
more: www.ud-germany.de/cms/ud/en/unive

8.

Entries are invited from your design students for the Nissan Car Design Competition, which is being organised by our IIT Delhi in association with Nissan Motor Company Ltd.

Competition poster is attached for your reference (last date for submission of entry is 03rd Jan.2009).

You are requested to kindly announce this competition among your design students.

An active participation of your design students is anticipated.

Assistant Professor

Industrial Design Program, IIT, Delhi

011-26596723, 6770, 09868101027

9.

The UK Environment Film Fellowships have been awarded every year since 2005 to Indian environmental filmmakers, to create 12-15 minute impactful documentaries.

Filmmakers can submit applications for either or both of the below mentioned themes:

*** Take Action – Case Studies of Individuals/ Communities/ Organizations in India successfully working towards reducing carbon emissions in India.**

*** Impacts of Climate Change on Human Security in terms of Water, Food & Migration**

This year there are two kinds of Fellowships

*** Full Fellowships: Four fellowships will be awarded, through a countrywide bidding process, to a team of environmental filmmakers and climate change professionals or institutions; to make 12- 15 minute documentaries on this year's theme**

*** Aspirational Fellowships: Climate Change is affecting each one of us and we all need to share our story.**

We are inviting everyone to share their stories through a short three minute film. Ten fellowships of Rs 10,000 each will be awarded to original films based on the themes

For further details log onto
http://www.britishc ouncil.org/ india-projects- lcf-ukeff. htm

OR

Kirti Manian,
Project Manager
Programmes
British Council
Mittal Tower, 'C' Wing
2nd Floor, Nariman Point
Mumbai - 400021

Tel:+91 (0) 22-22790101 Extn:150
kirti.manian@ in.britishcouncil.org

10.

American Center Logo Design Competition

Contest Description

The American Centers in India are looking for a new logo! Put your graphic skills to work and win a design fellowship to the United States.

We seek the country's creative community to help us develop a fresh look, which will be widely displayed on all American Center materials. American Centers are the public face of the U.S. Embassy in India. The American Centers in New Delhi and Kolkata, and the U.S. Consulates General in Chennai, Mumbai and Hyderabad support activities that inform the Indian public about American policies, society and values. These activities range from speaking tours and musical concerts, to school outreach, workshops and conferences, English programs, and exhibits. Please review the links above to learn more about the range of our activities.

The logo must be recognizable, dramatic and reflect the presence of the United States in India.

Eligibility

- **Open to Indian nationals age 18 and over.**
- **Employees of the U.S. Government and their immediate family members are not eligible.**

Contest Rules

1. **The logo must be the original work of the designer. The designer must certify that the logo does not violate any copyright.**
2. **Submissions of qualifying nature will become the property of the U.S. Embassy, care of the American Center. For any submission the Center takes ownership of, the Center retains the right to change the designs to better fit its needs.**
3. **No limit on number of entries per person. Group entries are acceptable, but prizes will only be awarded to individuals.**

Logo Guidelines

1. **The logo must have a strong symbolic component such that is recognizable by itself without the words "American Center" beneath it.**
2. **The logo must remind the viewer that the American Center is part of the U.S. Government presence in India. It must be appropriate as a U.S. Government symbol.**
3. **The logo should be usable in monochrome and color media.**
4. **No gradient colors.**
5. **All fonts are acceptable.**

6. **The logo should be simple enough to be used in a variety of mediums from letterhead to billboard size.**
7. **Submissions must be in .GIF, .JPG. or .BMP format, and include the designer's full name and e-mail address. The designer is welcome to send a short textual description of the logo along with the design. (optional)**

Prizes

The contest will award prizes for up to three designers. Top prize is a design fellowship to the United States.*
***Visa eligibility applies.**

For more details, contact us at amcenternd@state.gov, or 011-2347-2289/2290.

All submissions must be received by Jan. 15, 2009.

Please e-mail your entries at: amcenternd@state.gov
or
Send in your CD to:

American Center Logo Design Contest
The American Center,
24 Kasturba Gandhi Marg,
New Delhi - 110 001

January 23, 2009-Selection of finalists. Finalists will be posted on our website.
January 30, 2009- Awards ceremony at the American Center, New Delhi

Job Opening:

1.

A multi billion dollar company in Hyderabad is looking out for HCI/Usability/ Interaction Designers to join their Core Team in Hyderabad. The minimum experience should be more than 5 years. Java programming experience is a value addition.

Kindly forward/refer resumes to darshan@wengerwatson.com , so that I can talk regarding the job opening in detail. Also mail me across the work samples (if required try to remove the confidential data before sending).

Wenger & Watson Inc | Bangalore | +91-0-9972091101
darshan@wengerwatson.com

2.

we have an urgent opening for the post of Graphic Designers in one of the CMMI Level Company in Bangalore. The Job Description is as follows:-

There is urgent requirement for graphic designers. The required skill set are as follows. Pls refer to your friends who have completed your graduation or diploma in NID or Srishti

Abode Photoshop(Primary) / Coral Draw / Graphics design

Design development of any graphic design related projects like Consumer-cum- Technical Brochures , E - Catalogues, Visual Ethnography, posters, etc. The graphic designer will be directly interacting with the customer base in the US , Middle east and Europe both offshore and onsite.

The typical Scope of Work for any of these projects would be

1. Overall Design Theme

2. Content Generation

3. Design Layout

4. Co-ordination of Professional Photography

5. Selection of printing techniques and media to explore various switch finishes

6. Interactive Digital e-catalogue version of the brochure for various end users

SW skills mandatory:

1. Complete Adobe Package, Corel, Flash and other Multimedia Packages

2. Candidates must be graduates from National Institute Of Design Or SHRISTI only

3. Years of Exp. : 2 â€“ 5 yrs.

If you are interested, Pls forward your updated Resume to ravindran.girish@planmanconsulting.com or feel free to call 04442999803 or 9884668527.. ..
Sr.Research Associate
3.
Yahoo India R&D, is looking for a highly motivated individual whose primary responsibility will be to setup and lead the new Accessibility Lab in the Yahoo! Bangalore office and to represent Yahoo's commitment to disabled users both internally and externally.

Under this individual's supervision, the accessibility lab should become a the resource center for all accessibility needs at Yahoo!. He or she must be passionate about accessibility and possess a versatile and practical knowledge of assistive technologies. He or she must also demonstrate excellent organizational and communication skills. The potential candidate should be able to use, discuss, and test various Yahoo! products with such technologies as screen readers, screen magnifiers, voice recognition software and alternative input devices. Working in a dynamic environment like Yahoo! requires self-sufficiency, problem solving and enthusiasm. The successful candidate will be the face of Yahoo! in all activities related to the lives of disabled children and adults.

The Disabled accessibility lab will be part of the User Experience Design Group at Yahoo

Preferred Job qualifications:
- at least 3 years of practical experience with assistive technologies as mentioned above.
- Knowledge of the latest trends in the field of accessibility and assistive technology.
- Knowledge of major issues of importance to disabled individuals
- Ability to troubleshoot problems, test web sites for accessibility and develop creative solutions where necessary.

Interested candidates are requested to send in their resume to Join-ued@yahooinc.com with the code ICDA in the subject code
Director – UED, Yahoo India
Embassy Golf Links, Bangalore
Cell: +91-9741877553 | Direct: +91-80-30773827
4. Studio ABD is looking for young and talented designers, fresh graduates or 1-2 years of experience in the field of product / accessory design.
Studio ABD is based in Bangalore.

The Designers job includes:

Managing market intelligence by keeping track of changing trends.

Championing Brand values of client's brands, as it relates to product experience.

Designing within Cost Targets while creating exciting products;

Creating concept sketches for new product designs;

Preparing presentation images of new designs in coreldraw, Illustrator or 3D software.
Creating Spec Packs that communicate all the details of a new design;
Partner with Manufacturing to solve technical issues;
Working with multi-disciplinary teams to create concepts and see them through to production; .
Specific Skills
Experience using illustration tools such as coreldraw, Adobe Illustrator and Photoshop required.
Experience with 3-D Modeling preferred
Strong Sketching and concept development skills
About studio ABD:
We at ABD designs from our heart. Emotion underline our products, giving them inspired meaning. They kindle the audience by telling vivid stories, by overlaying the familiar with the new and surprising.

We believe in celebrating creativity combining it with fragments of Indian tradition with cutting-edge technology, fusing cultural motifs and contemporary forms. That conjures up sophisticated products that resonate with India's rich past. Propelled by the humor, craft, rituals, people, situations and heritage of India, ABD creates products that speak a unique language- an Indian design vocabulary.

Dedicated to create a whole and sustainable experience for the user , ABD focuses on fine-tuning details and expressing design all the way from product to packaging. Our portfolio includes designing consumer products, packaging, spaces, and luxury experiences through lifestyle products.

Our work has won many national and international design awards.
Our work for 0708, has won " designer of the year 2008", at BW-NID Design Brilliance Awards 2008.

Pl. mail portfolios (try and keep it with in 2MB) directly on abhijitbansod@ gmail.com

Studio ABD
Lakeview Farm, Near Shell Petrol Pump
Whitefield -Old Airport Road, Ramagondana Halli
Bangalore 560066
5.
1. HTML developer - XHTML tableless , Cross browser compatibility, CSS2 ,Dreamweaver CS3, Photoshop,W3C Standards. Knowledge of Javascript would be plus.

2. Visual Designer - Photoshop, Illustrator/ Coreldraw. Knoweldge of Web 2.0 is must.

3. Usability Engineer - Usability Engineering, Research and User centered approaches

These are very urgent requirements for a product based company. Please rush your CVs to me at the earliest. This position is for Bangalore. Working on product based companies would be a plus point but not must.

Send your resumes to deshpande@gmail.com

6.
An Aurangabad Based global supplier of Automotive and White goods component manufacturer and supplier urgently needs someone to handle Corporate Communications for the group.

The Group has 25+ companies spread over Aurangabad, Pune, Ranjangaon, Noida, Mannesar, Baddi, Milan, Warsaw and Barcelona.

The job is to initiate and lead requirements of Corp Com, PR, Advertising, Events, Exhibitions etc.

Someone with relevant qualifications and 2+ years experience would be fine. The Job will be based in Aurangabad.

Interested people please mail me resumes URGENTLY at sudhir@elephantdesign.com
7.
Please send your portfolio (or link to online one) along with your resume to jobs@utilesystems. com

Apply only if:
1. You can join asap.
2. You have worked on Applications (Web and Windows) and not just Corporate Websites.
3. You know JavaScript.
4. You know Photoshop, Dreamweaver and Flash.
5. You are highly creative.
6. You know what 'modern look' means and can create them.
7. You are o.k. with challenges and pressure and small company excites you (for obvious reasons).
8.
APPLICATIONS/ NOMINATIONS FOR THE DESIGN RESEARCH CHAIRS AT NID

National Institute of Design invites applications or nominations for the Jamsetji Tata Design Research Chair for Universal Design and John Bissell Design Research Chair for Textile & Apparel Design and Technology Fusion from experienced and professionally qualified designers, educators, innovators and allied professionals from India/Overseas (working/retired) .

NID has set up eight Design Research Chairs like O.P. Jindal Stainless Chair, Autodesk-NID Research Chair, Ravi J. Matthai Research Chair, John Bissell Design-Research Chair, The Charles Eames Design Emeritus Fellowship,
to name a few. Design Research Chairs act as catalysts for collaborative research opportunities at NID supported by specific sponsoring

industry/institution. The work carried out by the Chairs, usually focuses on the specific design development needs of the industry, in particular, and society at large.

Jamsetji Tata Design Research Chair for Universal Design

NID, the country's fountainhead of learning in design crowned by an international repute, in collaboration with Jamsetji Tata Trust, a corporate giant involved in the areas of education, health, research and infrastructure to serve the deprived section of the society, has set up the prestigious Jamsetji Tata Design-Research Chair for Universal Design to work
towards the socio-economic- cultural development of the country. Such collaboration will hyphenate the industrial and academic sectors, making design instrumental towards the psycho-socio- environmental development of people. Research and practice carried out by the chair will be based in broad areas of universal design like designs for barrier-free access for elderly population, rural health and service, design for digital inclusion, design of educational content for children with learning disabilities, design of products and services for the less-abled and differently- abled through relevant universal design applications.

John Bissell Design Research Chair for Textile & Apparel Design and Technology Fusion

The John Bissell Design Research Chair is funded by the Ford Foundation. This design-technology fusion chair has completed its first phase of five years. It is engaged in cutting edge design led research in the area of Textile and Apparel for product innovation with a view to establish a synergy of design and technology with appropriate linkages to design traditions of the Indian subcontinent. During the first cycle of the Chair, the research was focused in the area of Plasma Treatment to Angora Wool and Nanotechnology Applications in Textiles and the Atmospheric Plasma Processing System for continuous treatment of Angora fibres was developed.
It has been installed at Kullu for development of fashion products from plasma treated fibres. A Single Fibre Friction-cum- Strength Tester (SFFST) has also been developed to measure the change in friction characteristics of Angora fibres after the plasma treatment.

A span of five years will mark the duration of each cycle of the Chair, which would further be divided into two phases. The Chair will be an eminent, academic, research-oriented visionary who can strike an impeccable balance between knowledge and application of the same, thereby creating technologically sound designs of products and services. The eligible candidate should hold a relative experience of at least 15 years and should have made specific and tangible contribution in their respective broad areas. Emoluments will be commensurate with the educational qualifications and professional experience of the candidate, and will be broadly around what the best educational institutions pay to senior professors. For details please visit NID website www.nid.edu

Please send applications/ nominations to:

The Activity Chairperson,

Research & Publications,

National Institute of Design (NID),

Paldi, Ahmedabad - 380 007.

Tel: +91-79-2662 3692 Ext: 1081

Fax: +91-79-2662 1167

Email: designresearch@nid.edu
9.

A US based start up is planning to open design and development centre in Bangalore and looking for a Product and Visual Designer. The basic job description is to have an exceptional sense of designing modern touch screen based products with the clear mandate to out class I Phone in every aspect of interaction - physical and behavioural. Maximum industrial experience should be 3 years with a sound grounding in product design. There is no requirement on what tools or softwares you should know as long as you know in your mind what you want to use - the same will be provided to you. If you think it interests you please email back at ihaveadream@suntulit.com with a brief profile of yours and a sketch/design of any touch based system that you can envision and get together to showcase your skills. It need not be elaborate but enough to show your talent and passion for design of modern age products

(More jobs are available in our website www.designforall.in)

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Forthcoming Events and Programs:

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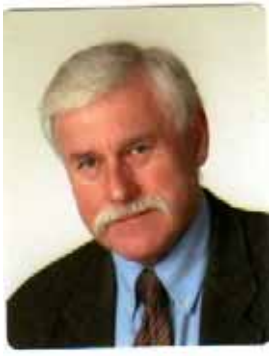

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