

**The Designer as Pathfinder:  
Design Education in the 21<sup>st</sup> Century**  
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**Introduction: The Designer's Status**

Since the dawn of the new millennium, design practice in many areas has undergone rapid transformation. Changes have occurred not solely as a result of massive technological progress. Many designers in USA and Europe are reappraising their roles and starting to make a more profound contribution to a larger range of decision-making embracing user, market and global issues. Individual experience in business life can enhance designers' frame of reference but it is designers' basic education that will largely determine how well equipped they are to undertake a more rounded range of activities appropriate to the world's current complex conditions.

The year 2001 saw the completion of my 12 years in full-time postgraduate design education. My aim, at the Royal College of Art and Brunel University was to produce design-trained graduates who would take up senior roles in industry and commerce that would enable them to help integrate design in companies on a long- term basis. The programs were started in the late 1980s when the work of designers was little understood and design was not seen as a major corporate resource. Much has changed since that time. Most organizations now recognize the value of design thanks to many individual champions of design and the promotional activities of many design societies and institutions. My own and other advanced design programs also played a significant role in helping this change to come about.

Emerging from a full-time educational role seemed like a good time to reassess the conditions that had started me on the education process in the first instance. My concern at the outset, was, and still is, with the status of designers internationally, the relationship of designers and their clients, the evolving roles of designers working in-house and the connections between design practice and design education. Looking at the steady progress of design endorsement by companies and consumers over the last two decades I found a number of lingering inconsistencies still to be addressed (Gornick, 2001). Despite progress made in education and practice, research findings would indicate that there remain four persistent dilemmas (comments within parentheses are 2007 additions):

The first is concerned with the optimum position of design in an organization and the type of personnel who manage it most effectively. The field of design management has evolved from the 1970s through practice and research. The question is often raised as to whether design management is a management discipline, a design discipline, both or neither. (In addition, there is a question as to whether the discipline of design management should be taught in design schools or business schools, or both.)

The second dilemma is that designers appear to have reached the stage of public and corporate recognition that they have always aspired to, but at a level that may not reflect their true range of activities and their true worth to society. (It appears at first glance, largely through media coverage, that designers are predominantly interested in working for luxury level manufacturers and environments. Their work has much wider range. Is this how they wish to be represented?)

The third finds designers' influence now at its highest point. At the same time, designers may be falling short of clients' expectations as well their own by accepting an anachronistic view of their range of responsibility. Designers now operating in the field of design management are brave but too few, as yet, to create meaningful change. (Bill Sermon, Nokia's Vice President of Multimedia, maintains that only 20 percent of international companies have design management personnel.)

The fourth dilemma could be seen as the basis for the three above: Design education in the West has an outstanding international reputation, yet it could be argued that patterns have been set during college years in some institutions that unwittingly encourage isolation and hinder graduates' integration and flexibility in an unpredictable world. (This is the underlying paradox that affects many designers' lives and

livelihoods today.)

This paper will focus on the final and predominant dilemma—design education and its future—looking at the global educational environment along the way.

## **The Context of Design Education**

Over the past few years, a number of key issues have emerged that concern all spheres of Western economic and business life and increasingly affect design activity. These include a marked concern with the environment, demographic change and user collaboration, business ethics and sustainability, the technology revolution, global economics, the rise of China and India and the uncertain outcomes in world politics. Many leading design consultancies have responded to these factors by acquiring new knowledge either internally with an enlarged discipline base or externally through alliances with experts in other fields. Several new vigorous educational programs have emerged as a result of these external pressures in Europe and USA. Despite this progress, the majority of design education seems to be in a state of uncertainty.

Many designers are concerned about their contribution to society as a whole as well as consumer trends. It is interesting to note that in 2000, graphic designers reissued the *First Things First* manifesto in response to increased advertising industry demands. Signatories urged designers to use their problem-solving skills to help unprecedented world environmental, social, and cultural crises. Today, many industrial designers would far rather operate at the other end of the innovation spectrum and tackle the pressing problems of urban mobility, for example, rather than configure new features for an existing car or even contribute to the development of a totally recyclable model. This represents a continual tug-of-war in many a designer's psyche but has also recently led to a remarkable rise in the number of design programs devoted to ecological and environmental issues. This type of program is increasingly pushed forward by concerned staff but also by students themselves. An example is the current undergraduate product design program at University of East London where, as Prendivile (2003) states, the emphasis has moved from the design of iconic objects to studies on the context of design, product service systems, and enhanced environmental responsibility of the designer.

As the recent British official commission chaired by Sir Nicholas Stern (2006) stated, climate change “is the greatest and widest-ranging market failure ever seen”. IHT (2006) comments on this widely publicized report: “The question now facing us is whether global capitalism and Western democracy can follow the Stern report's recommendations, and make the limited economic adjustments necessary to keep global warming within bounds that will allow us to preserve our system in a recognizable form; or whether our system is so dependent on unlimited consumption that it is by its nature incapable of demanding even small sacrifices from its present elites and populations.” It is in this area of current high-profile concern that many designers are now making a choice of the direction they wish to pursue

In addition to the urgency of climate change, designers will now be aware of much broader thinking in US K–12 or UK primary and secondary education that will affect their own future working world. Certainly, current world affairs are having an effect on all branches of education. There is an understanding in government departments in the West that the rapid economic rise of China and India and the accompanying developments in education in those nations will necessitate a rethinking of their own traditional education norms. To start with, a comparison of Chinese and US/UK educational cultural values is sobering. The Chinese have enormous respect for education and Chinese students are eager for education and advancement and, in general, work harder than their US and UK counterparts who, in the main, look upon education as a series of tests to pass in order to qualify for work or college. This means that our closely monitored testing systems are possibly creating stress, not love of learning. Our own educational standards have to be raised in order to deal with this competition.

The US National Center on Education and the Economy has published a report “Tough Choices or Tough Times” (2004) looking at this problem. The executive summary states: “This is a world in which a very high level of preparation in reading, writing, speaking, mathematics, science, literature, history and the arts will be an indispensable foundation for everything that comes after for most members of the

workforce. The best employers the world over will be looking for the most competent, most creative and most innovative people on the face of the earth. Those countries that produce the most important new products and services can capture a premium in world markets.

“That kind of leadership”, the study suggests, “does not depend on technology alone. It depends on a deep vein of creativity that is constantly renewing itself. Now many students just slide through high school. With this system, they will know they have to work hard in school to get anywhere. The core problem is that US education and training systems were built for another era. The governance, organizational and management scheme of American schools was created in the early years of the 20<sup>th</sup> century to match the industrial organization of the time. High quality early childhood education is one of the best investments a nation can make.”

(We like to think that America, China, India, and Europe can all be successful. China still has to make some very big changes to get there – but so do the US and the UK)

On the other side of the Atlantic, the Department for Education and Skills in the UK has consulted a wide range of employers to understand what they expect from the education system. The response is that employers want people with the skills and attitude to make a positive impact on business as soon as they start, and affordable and effective training for their existing workforce. Recent developments in UK education, skills and children’s services have been designed to help achieve these goals.

The Leitch Review of Skills (2006) states in their report on 14-19 Curriculum and Qualifications Reform: “In the new global economy, economic security cannot be provided by trying to protect particular jobs, attempting to hold back the tide of change. Instead, economic security can only come from ensuring people have the support they need to stay in employment, taking new opportunities as they arise. Increasingly world-class skills are essential to delivering world class employment and reduced child poverty. A highly skilled workforce drives innovation, leadership and management, enabling business to compete in the global economy.”

My question is, if governments in the US and UK are now seriously considering embracing profound change in their basic educational systems to ensure continued success in the global economy, shouldn’t design education be at the heart of that change and, more than that, leading with ideas for new pathways?

We must applaud the fact that there is an increasing number of new design programs being established internationally. Generally speaking, each of these initiatives seeks to broaden traditional design education. Some are noticeably issue-based, particularly in the areas of sustainability and the environment. During the last two decades new radical educational initiatives have emerged in Europe and the USA. The impetus for this development arises from individual authors or groups of authors with an acute awareness of the dichotomy between design practice and education. As a group they are characterized by their own distinctive aims and objectives. A key paradox of this phenomenon is the disparate nature of these initiatives and their occasional institutional vulnerability. There is increasing recognition of this evolutionary change, but no overall directive, although in the UK there is a new Design Council-sponsored inquiry (2006) that is working towards broad educational change. Does the design community, in general, feel that these random educational initiatives are sufficient?

### **Business, Management, and Society**

The shifts in corporate life and management theory reflect global opportunity and upheaval as well as remarkable changes in society norms and work patterns. Recent writing in management theory and social science impacts on current design activity both in practice and education:

There is significant discussion on present global economic problems and the need for massive corporate organizational change. Zuboff and Maxmin (2002) describe this as a current ‘transaction crisis’ between institutions, companies and consumers and promote the idea of a new and greater understanding of the needs of all stakeholders. A new support system is required, they suggest, which will humanize existing

traditional business practices. The authors take a metaview of a new economic system required to deal with fluctuating markets and uncertain business environments.

When thinking about the broad influence of global economy on modern society, and the pressing need for innovation, we generally follow the idea that flexibility, understanding change, and 'self-management' are most the liberating and creative ways to achieve change. How is society in general relating to these shifts? Richard Sennett (2006) presents another point of view. He suggests that modern capitalism is based on a "consuming passion for potency"—that is, people are encouraged to buy objects with capabilities they will never use. For example, the four-wheel drive vehicle is designed for rough terrain but is largely used in cities to ferry children to school, or the iPod, capable of storing 10,000 songs, even though research has shown that the average music lover is happy to listen to about 30 or 40 tunes. He maintains that certain social and emotional traumas are inevitably associated with global capitalism. Sennett argues that for most people these new attributes have also meant the lack of loyalty to institutions, a diminished sense of responsibility and the proliferation of anxiety. Designers may be so overconcerned currently with their competitive environment that they are rarely able to offer much-needed reflective thought on the collective future of the design community and design education as a whole.

### **Changing Designer Roles and Their Effect on Design Education**

For the last two decades, management gurus have urged many business audiences to integrate design in their organizations as a key strategic tool. On many levels, designers are expected to understand increasingly rapid and unpredictable changes in corporate life and consumer behavior and to help their client companies anticipate future trends.

What are designers' responses to dealing with client uncertainty and change? A few leading design consultancies, the Doblin Group, IDEO, Seymour Powell and Ziba Design for example, undertake extensive user research for their clients. Essentially, they are moving into a similar sphere of activity as management consultancy but with enhanced human-centered tools and techniques. In a recent article (Gornick, 2006), there is a description of changes in design consultancy organizational culture quoting Richard Seymour of Seymour Powell and Sohrab Vossoughi of Ziba Design. Both interviewees were adamant about the need for design practice to broaden its sphere of responsibility. This imperative applies equally to large and small companies, design consultancies and their clients alike. The question of work/life balance becomes increasingly significant in this fast-moving environment, as Sennett suggests.

Equally in-house design teams and design managers have reached an important stage of corporate recognition, at a level that makes many demands on their innate knowledge, interpersonal skills and forecasting strengths. It is interesting to note, not only that design management personnel are in demand in large corporations such as Nokia, Procter and Gamble, and Philips, but also that a basic requirement of their employment is that they have had a design education background. Design-based personnel are now in an enhanced position to lead in organizations alongside their management colleagues.

These changes indicate an expanded new world opening up for designers to enlarge their range of activity. Whether designers choose to take up new roles or not, the expectations of their knowledge and position in business life have become significantly heightened. Their opinions and advice will be sought after more than ever before. Despite the reluctance of many designers to accept this premise, we are seeing the steady advance of people with a design background who successfully champion and integrate design in organizations. Apart from the often-quoted example of Jonathan Ive's high-profile design position in Apple, another key example is that of industrial designer Mark Parker's appointment as CEO of Nike in early 2006.

But how many designers feel that they have a direct responsibility to be more proactive, to help push ideas of sustainability in their clients' organizations and to advance knowledgeable opinions on issues contingent to design?

## **Design Education: The Predilection to Change and the Barriers**

It is mysterious that the education of designers is so entrenched when other areas are adapting to new global conditions so rapidly. Admittedly, it is difficult to change a very structured, discipline-specific culture, now bound on many sides by complex funding arrangements, evaluation criteria, assessment requirements and increased research demands. But why is it more ponderous for design than other disciplines going through similar metamorphoses? Just to pick two reasons for this hesitance—one might be the lack of a research-based culture and the other, slow recognition of the global design education competition.

Ken Friedman (2003) agrees that design education in general does have a lag time rather than a lead time. He endorses the fact that there has been a significant transformation in the nature of professional practice in many fields. The difficulty, he believes, is that most design education is linked to old forms of professional practice rather than to the new challenges anchored in research. He maintains that in fields without a research culture to generate and share information, education generally lags behind practice, and there is little advanced research to push professional practice forward. Friedman says, “Most of today’s design challenges require analytic and synthetic planning skills that cannot be developed through the practice of contemporary design professions alone. This is why design requires research, and it is why designers will increasingly work in multidisciplinary teams.”

It is disheartening to acknowledge that the design profession in the main is resistant to using design research. Could it be the case that as the world (and design activity) become more complex, people (including those involved in design) are reluctant to embrace direction change? We can see this very human reaction occurring, for example, with people’s hesitance to fully embrace even minor economic reconstruction to safeguard against global climate change.

In addition to the problem of research deficiencies, we also see that the Chinese have decided to establish over 400 design schools. There is no doubt that they see a direct link between design and a successful economy. (In comparison, the UK has 190 institutions offering design programs and in US, NASAD lists 248 art and design institutions). In a lecture to Chinese educators, Richard Buchanan (2004) asks, “What is the new environment that forces us to rethink design and design education/in the East and West? In the simplest terms, the new environment is international competition in the marketplace. [We have] to consider what knowledge and skills will help Chinese designers eventually move into positions of leadership in industry, something that is now happening in the West as a result of changes in design education and a recognition in industry of the many talents of well-educated designers.”

“In the best design schools in the West”, Buchanan maintains, “fully one-third of all instruction is taken in areas of study outside design. The subjects may include literature, the natural sciences, the social sciences, mathematics, or technical subjects in engineering or computer science. The point is that students must have a breadth of learning if they are to work effectively in contemporary culture. Design schools that prepare students for stylistic and formal expression address only a small part of the discipline of design.”

We are at a very early stage in developing doctoral programs in design, Buchanan believes, but each year will see the growing force of such programs in shaping design practice and design education. “The development of design research will, in the long term, have a profound effect on the practice of design and on design education.”

## **The Designer as Pathfinder: Intimations of Metadesign**

Recently discussion has turned to the changing nature of the traditional design brief and the move to designers “finding” the problem for the client or for the organization. In a recent conversation with Garry vanPatter (2007), Min Basadur quotes research carried out in his company indicating that successful leaders of the 21<sup>st</sup> century “be they designers or politicians or managers or concerned persons of any type, are going to have to do more than just get important problems properly defined. They are going to have to generate such problems first and excite others about taking them on.” He suggests that this is the

stage that Al Gore is in right now with his film *An Inconvenient Truth* about global warming. Problem finding “means continuously and deliberately discovering new and useful problems to be formulated, solved, and implemented.”

One of the difficulties here is that most often people involved in problem formulation fear failure in the implementation process and especially current media attention to applying blame. It takes a certain kind of courage to undertake a different pathway.

It could be argued that design educators in the main prefer to concentrate on creativity and novelty, rather than global and contextual issues during students’ college years, in the belief that these issues can be learned at a later date. But in our continually changing work climate is there time for such delay? John Thackara (2005) recently quoted remarkable statistics from the website CellularOnline: “Accelerating economic growth means that these days, on just one typical single day:

As much world trade is carried out as in the whole of 1949

As much scientific research is published as in all of 1960

As many telephone calls are made as in all of 1983

As many emails are sent as in the whole of 1990”

There is considerable urgency in this discussion. When many design graduates leave college they still, to this day, appear to be ill equipped to deal with the “real world.” Students need to be better prepared to work in the current business climate. Once they leave college, they will be representing “design” to the people they deal with outside their design world. They will need to communicate ideas of “metadesign,” not simply the discipline—graphic, product, interior, fashion—in which they’ve been trained. Richard Grefe (2006), Executive Director of AIGA, the US graphic designers’ association, agrees with this thinking. He wrote, “Clients seek “designers,” broadly defined, and the highest and best use of a designer’s talent depends on the way he or she solves complex problems, not bounded by the medium of the outcomes.”

Educational experiments will continue to flourish inside those academic institutions interested in broadening out design education. But if we are concerned about future generations of designers in this rapidly changing world and the slow pace of change in design education generally, then we have to conclude that the numbers of graduates emerging from new, innovative programs is too low, at present, to make a substantial difference overall. A critical mass is required for a significant change to be recognized and time is of the essence.

The accelerated development of postgraduate programs may indicate the shortcomings now apparent in traditional undergraduate provision. In general, authors of new postgraduate programs are seeking to broaden traditional design education curricula. They have in common a desire to place the program in a wider context that relates design to the market, to economic, political and environmental imperatives and above all to changes in society. At an individual level, authors normally have a particular issue driving their basic concept.

Giaccardi’s exposition on metadesign (2005) makes interesting connections with pioneering work already carried out in advanced design education. She finds some crucial elements in metadesign theories and applications as follows:

A focus on the design of general structures and processes, rather than on fixed objects and contents

The need for methods and techniques that are fluid, rather than prescriptive,

The call for environments that can evolve

The necessity of relational settings that allow systems to be based on a mutual and open process of “affecting and being affected”

These ideas echo Ralph Stacey (2002) on the importance of monitoring and learning from organizational conversational exchange and my own examination (Gornick, 2003) of the “quality of dialogue.” The paper was part of a series looking at the nature of academic and industrial collaboration as part of a post-graduate curriculum and the subsequent career paths of graduates. If we consider that design and management have two different languages and cultures, then industry-based experience for design-

trained students is a vital component of the new curriculum. The basis for these industry-based projects is to discover how effective communication juxtaposition can be established between the individual, the team and the organization as a whole.

## **Conclusions**

Over the coming years, it is likely that there will be significant changes the way education, in all subject areas, is manifested. Issues such as lifelong learning, changes in working and employment norms, career patterns, and the growing significance of the knowledge economy will demand new educational solutions and greater collaboration between business and academia.

Rapidly accelerating design recognition in China, as evidenced by the overwhelming number of new design colleges, will necessitate an equally rapid rethinking of current Western design education norms. Continued and extensive collaboration between design institutions in the East and West will benefit all nations.

To be successful, design graduates clearly need to develop the ability to integrate theory into the current business and society context. We have learned that this skill can only be fine-tuned and enhanced through practice. Without experimentation in design education and practice, vital connections to key world issues will be lost.

In today's complex world conditions, where economic, social, and political aspects are changing rapidly, designers will need to make up their minds about where they want to be and how they want to work. Designers will have to put the whole of their intellectual life, not just their discipline training, into the deliberation. Designers may be overconcerned currently with their competitive environment. Space and time must be made to enable established designers to offer much-needed reflective thought on the collective future of the design community and design education as a whole.

In international design education generally, there is no collective consensus on the best direction. The new leading edge design programs are brave and random initiatives and not recognized or emulated to the extent that they should be. Many more educators would like to bring change to their programs but are constrained by institutional cultures and an incomplete understanding of the rationale for urgent change. Our education and training systems were built for another era. Changes in the world now are so profound, we, as designers, will have to use all our ingenuity to even make a dent in the problems. Designers should seize the moment and lead the way in finding both the global problems to solve and the new pathways to educate future generations of design students.

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