

A Dialogue on the Future of Design Education

Naomi Gornick ¹, Ian Grout ²

Abstract

The paper investigates two educators' responses to dealing with world uncertainty and change and falls into the conference's general theme of 'Tools'. The authors take their existing programme curricula, philosophy and strategy as a starting point and discuss together their ideas for answering the following questions:

How well are our current programmes responding to our changing world?

How may we change programmes in the near future with the objective of developing best ways for preparing students for the current and emerging local and global contexts?

The authors seek to move design education from discipline specific to holistic, from relative certainty to better best-guessing, from designer as individual to designer as teamworker, from standard of living to quality of life.

¹ University of Dundee (SCOTLAND), Honorary Professor, naomig@ngassociates.co.uk

² The Glasgow School of Art (SCOTLAND), Product Design, Lecturer, i.grout@gsa.ac.uk

Introduction

In this study, we want to, together, examine how we believe design education should evolve in the future. This paper represents an extension of a group seminar we were both involved in last year at the 'Connecting' Conference in San Francisco along with other International design educators and practitioners (ICSID 2007). That discussion confirmed to us that there is an urgency to the development of this subject in expectation of an impending massive change in world conditions, the imperative to take action, the seemingly steady marginalisation of design and its inability to respond quickly to these conditions. Designers appear to have reached an important stage of public and corporate recognition, but at a level that may not adequately reflect their true worth to society. Designers are in a significantly enhanced position to lead with new ideas and yet few are in key decision-making roles or realise the potential and responsibility to be a part of this change. We argue that a major reason for this paradox is the cautious reaction of design education as a whole to the current global issues that form the context for all design activity.

We discovered, in starting to plan this study, that although our academic interests took us in different, but parallel, directions, our attitudes to change in design education are extremely similar. Naomi Gornick began, in London in the late 80s, to develop masters programmes for experienced designers to take up senior roles in manufacturing and service industries, concentrating on designers' roles in, mainly, large organisations, thus developing an interest in organisational behaviour and strategy. Ian Grout and Norman McNally at The Glasgow School of Art transformed a vibrant product design course into a forceful programme highlighting and developing the designer's connection with and responsibility for society's contemporary and rapidly changing needs. What we appear to have in common is a certain 'maverick' side to our personalities and this characteristic has enabled us to develop radical programmes recognised in Gornick's case by the high profile of many of her graduates' career patterns and in Grout's by a new vision of the 21st century product designer concerned with ethics, sustainability and ecological issues in a societal context.

We each have a determined and personal way of taking strategies into action, the departments in which we operate understand that dimension. There were and still are institutional champions of our way of thinking that enabled and still enable our educational experiments to flourish.

This paper represents a dialogue on our main concern – a huge subject, the future of design education. As we began to write out our chapters for this paper, two aspects became clear. First, this study is the start of a much longer conversation and secondly, we approach the investigative process in two very different ways as a result of where we stand today – Ian, experimenting inside the education system and looking out and Naomi, reflectively re-appraising the system and looking at broader contributing factors to its strengths and weaknesses. So, we decided to let the stories run their own course so as to better understand how we both got to this particular crossroad at this point in time and what that meant to each of us. In the summary we will attempt to consolidate what we have communicated here and what, hopefully, may be of future value, each to the other in moving forwards and also to the general debate on design education's future.

"The meeting of two personalities is like the contact of two chemical substances; if there is any reaction both are transformed" - Jung

What are our backgrounds and what are we bringing to this dialogue?

Naomi:

Looking back, it's difficult to recall the time in the 80s when a small number of dedicated people were trying to persuade UK industry to integrate design into their organisations for greater economic success, especially today when most international companies recognize the value of design as a major business resource. There was a huge wave of enthusiasm then for the field of design management and this was carried along, in no small way, by the influence of a number of seminal reports on the importance of industrial design for UK manufacturing industries and the future of industrial design education (Carter 1977, Corfield 1979, Hayes 1983 and DTI, Design Council 1984).

I was invited to start a Masters in Design Management at the Royal College of Art in late 80s with David Walker from the Open University. We wanted to create 'new design professionals' who could take up the equivalent of management roles to promote the value of design throughout industrial organisations. From the start, in research projects, we collaborated with large companies that had design management facilities within their organisational structure, such as British Rail, British Airways and London Transport. As educational experiments do, this first attempt floundered. But not without creating some remarkably successful graduate careers. Subsequently, Brunel University Design Department asked us to set up a new programme and in 1994 MA Design, Strategy and Innovation was launched and is still going strong.

Our educational rationale was not to make designers reject their core skills, but to make them contextualise their professional work and give it a new sense of purpose. This new platform of education at Brunel included:

- A core taught syllabus based on case studies and current design and management literature
- An emphasis on team building for investigative research projects
- Links with Brunel University School of Business and Management
- Formal industrial collaboration leading to employment opportunities

Fully one third of the curriculum was devoted to students work with industrial organisations which took the form of a team-based company audit and individual internship. Through these projects students had direct contact with managerial personnel. They had to learn new languages to communicate with their management counterparts. Most of all they had to learn by listening. Many graduates have started their own consultancies such as Engine Group and Plot, several are working inside companies as I originally envisioned such as British Airports Authority and Procter and Gamble, some are educators such as Alison Prendiville, Senior Lecturer in Contextual and Business Studies, Product Design Futures, University of East London

One of the greatest influences on my thinking in developing the RCA and Brunel programmes were Ralph Stacey's ideas on the conversational lives of organisations (Stacey 2002). Design and management have two distinct languages and cultures, so conversations and power relations between designers and managers become paramount. It was obvious that design-trained students needed special skills and Stacey describes these as:

- The capacity for self-reflection and owning one's part in what is happening

- The ability to facilitate free-flowing conversation
- The ability to articulate what is emerging in conversations
- A sensitivity to group dynamics

Designers do not automatically acquire these skills in their undergraduate years. We always acknowledged that the reasoning behind these graduate programmes was based, in part, on an underlying paradox in undergraduate design education. The ethos of the design academy is that of a hothouse of invention, creativity, and “blue-skies” thinking. The dilemma still is, how much of the outside world should be allowed in while this creative development is taking place? In the years since we started, there is far more inclusion now, in undergraduate programmes, of the key global issues affecting design under ‘design studies’ or ‘cultural studies’. The level of this exposure varies enormously, much depends on the predilection of individual programme leaders and tutors and on the ethos of institutions. In my research I have argued for the inclusion of business and contextual studies in undergraduate design degree programmes (Gornick et al. 1995). Now as I continue my investigation, I begin to look at two new areas: first, how as a consultant rather than course leader, I would further develop Master’s programmes based on design in current organisational life and reflecting today’s key issues of sustainability and ecological dilemmas and second, how the general flow of undergraduate design education should now, most appropriately, be carried out. It was with both these subjects in mind that I wanted to engage in a dialogue with Ian.

Ian:

In 1999 we began a radical overhaul of our courses in Product Design at GSA. We had a gut feeling of the world changing and with it a future change in design education. We had been experimenting with the course, moving towards the humanities. We were interested in social sciences which we saw would enable us to develop a better understanding of:

- designing for society
- our relationship with and the design of artifacts
- how to educate designers for a changing world

I had been developing sustainable design. As most practicing designers at that time I was still trying to make sense of this. Papanek, (*Design for the Real World* 1972), Schumacher (*Small is Beautiful* 1973), Pye (*The Nature and Art of Workmanship* 1968) and Womak and Jones (*Lean Thinking* 1996) were what we were working with. This was limiting considering our changing world. A more humanities centred design approach seemed a positive opportunity for the development of sustainable design education. At that time I had no idea where it would lead but to take action in this way felt intuitively right. Designers trust their intuition. I trusted mine.

So now we were designing design education. We created 2 courses, both innovative, both new and that, as they say, was where the fun started. Designing them was relatively easy and took just a few weeks. We knew what we wanted to do, why we wanted to do it and how to do it. What took time was to get it through the management systems at GSA. That took a further year and a half.

The first course, a 5 year Master of European Design (MEDes) is a 3+2 integrated masters in partnership with; Konstfack, Taik, Politecnico di Milano, KISD, Kunste Akademie and Les Ateliers. Increasingly, designers were working Internationally so we wanted design education to be truly International. We also wanted the excellence and diversity of each partner to enable individual pathways for

the students. To this end the programme was constructed to allow 2 exchanges of one year each. This results in unique and very individual students who are broadly cultural, mobile and in tune with developments across International boundaries. They work Internationally, naturally. The programme is minimally bureaucratic, the students remain students of the home institution which awards the degree. Within this the students and staff enjoy a culturally rich network to exchange and develop the latest educational thinking.

The second course is a 4 year Bachelor of Design with Honours (BDes(hons)). There are distinctions between this and our old BA, namely:

- An integrated first year giving 4 years for the degree allowing us space to teach an expanded skill set
- Sharing the first 2 years with the Medes course
- European language teaching
- An extensive dedicated exchange programme with 15 global partners

We also integrated social sciences into the curriculum firstly with staff from humanities at Glasgow University then, latterly, with dedicated staffing within the department. Currently, Gordon Hush, our acting head of department is a social scientist. This opening up of product design and new relationship with social sciences allowed us to move from “how to design” - problem solving towards “what to design” - a deeper understanding of the issues of living into the future in a changing world. Furthermore, it has created a course that is inherently flexible and adaptable and able to be under continuous development, projecting visions and developing new tools for future education. As I intended, it is a good place to be when considering future issues of sustainable design education.

We took it upon ourselves to develop these programmes, there was no pressure from the school to do so. The motivation came from the feeling that the old BA model had run its course and that something new had to be in place.

When we started out we expected that the MEDes would need the most developmental input and the BDes(hons) would simply be a development of the BA. The MEDes naturally found its own way and is still substantially as it started out. By nature it is more of a network of independently evolving courses rather than a course per se. The BDes(hons) rapidly entered new educational territory and we found ourselves well ahead of the game. Consequently there has been much learning as we grew and this has created a symbiotic relationship between the students and staff. We enjoy a collective pioneering spirit.

What are the current contexts of design education?

Naomi

We have been describing our own educational experiments but we have to acknowledge that these are part of a number of new radical initiatives that have emerged in Europe and USA during the last two decades. This development is largely driven by academic authors, some of whom we know very well, in design institutions who have an acute awareness of global changes in industry and society and who recognise the dichotomy between design practice and education. Each programme has its author/s own distinctive aims and objectives. A key characteristic of this phenomenon is the disparate nature of these programmes and their potential

institutional vulnerability. There is no overall directive, although in the UK a new government sponsored inquiry (Design Council 2008) is working towards broad educational change.

Certainly, current world affairs are having an effect on many branches of education. The shifts in economic structures, changes in corporate life as well as new thinking on environmental issues reflect global opportunity and upheaval as well as remarkable changes in society norms and work patterns. To examine the future of design education, I think we need to look on the client side as well as the new world of the design practitioner.

There is much discussion on the need for massive corporate organisational change. This has been described (Zuboff and Maxmin 2002) as a current 'transaction crisis' between institutions, companies and consumers and promotes the idea of a new and greater understanding of the needs of all stakeholders. Existing traditional business practices must be humanised. We need to take a meta-view of a new economic system required to deal with fluctuating markets and uncertain business environments. A leading management theorist (Mintzberg 2004), holds MBA programmes in business schools responsible for many of business's ills, as the teaching stresses formal analysis and control rather than much required vision and experience of webs, networks and teams.

Business and management practices have certainly caused many of our current problems, but designers also have to re-examine their own practices. On many levels, designers are expected to understand increasingly rapid and unpredictable changes in corporate life and consumer behaviour and to help their client companies anticipate future trends. Can they do this?

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 the sphere of management consultancy but with enhanced human-centred tools and techniques. As management consultancy and design consultancy converge, we may see the emergence of a new type of innovation consultancy. Both Richard Seymour of Seymour Powell and Sohrab Vossoughi of Ziba design are adamant about the need for design practice to broaden its sphere of responsibility (Gornick 2006). Seymour believes 'all the boundaries designers are familiar with are dissolving'. He wonders whether the design industry is capable of being fast enough to understand what is needed from them to fulfil client needs".

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. These shifts point the way to 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 opinion and advice will be sought after more than ever before. The opportunities exist if they can take up the challenge. Enhanced design education is the key in this respect, and this process, for designers, does not stop at graduation. It is a case of life-long learning.

Ian:

In the intervening period since we began our new programmes much has changed in the world. As sustainable design has become more important there has

been both convergence and divergence in both thinking and action. Convergence in the sense that from relatively fragmented approaches there has emerged, broadly, two directions and divergence in that they are diametrically opposed.

(1) Concerned with sustainable designing for the status quo that supports; a growing standard of living, extending status and ownership, continued economic growth and increasing energy needs met through new technology. In this approach sustainable design becomes a quantifiable, bolt on, component typified by cradle to cradle (McDonough and Braungart 2002) and dust to dust design activities.

(2) Engages with the changing attitudes of society and explores design in a more holistic manner, social and cultural in ways of designing for quality of life centred in opportunities for and including: co-designing, designing for society, designing for the experience of living (programme development, product design, GSA 2008), affordance (Gibson, 1977), social innovation, social ecology and social entrepreneurship (Bornstein, 2004). This approach can be typified by the EMUDE project in which we explored, through eight European design schools, people inventing sustainable ways of living (Manzini et al 2007).

Both approaches have their devotees but, in general, action in sustainable design education has been too slow. This may be for several reasons, fixed modular educational programmes, increasing bureaucracy, lower funding and the rise of research in the purely theoretical. All have their effects in slowing down the ability of academics to make experiments and take risks. As I was writing this I was listening to a radio programme on bureaucracy in secondary school teaching. I heard this, *“As I test them more and more I teach them less and less . . . soon I will be absolutely sure that they know nothing at all”* (anonymous teacher, Radio 4 UK, 23.05.08, 17.50). We would all recognise this as a growing issue in higher education and the problem inherent in it as symptomatic of the barriers we face to change.

What do we think are the future contexts for design education?

Naomi

It is mysterious that the education of designers is so entrenched when other areas are adapting to new global conditions rapidly. Admittedly, it is difficult to move 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? We need to consider the following aspects:

Most pressing for Western design education is the recognition that the development of design in the Far East will outstrip provision in Europe and USA. It's interesting to compare the numbers of institutions with design departments. The Chinese authorities 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 programmes and in the USA, NASAD lists 248 art and design institutions.

As the recent British official commission chaired by Sir Nicholas Stern (Stern 2006) stated, climate change “is the greatest and widest-ranging market failure ever seen”. IHT (Lieven 2006) comments on this widely-publicised 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 recognisable 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

Recently discussion has turned to the nature of the traditional design brief and the necessity for designers "to find" the problem for the client's organisation. In conversation with Garry van Patter (van Patter 2007), Min Basadur quotes research indicating that successful leaders of the 21st 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." 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.

There is considerable urgency in this discussion. When design graduates leave college they will be representing 'design' to the people they deal with outside their design world. They will need to communicate ideas of meta-design, not simply the discipline – graphic, product, interior, fashion – in which they've been trained. This idea is echoed (ICOGRADA web-based newsletter) by Richard Grefe, Executive Director of AIGA He wrote (Grefe 2006). '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 and the slow pace of change in design education generally, then we have to conclude that that the numbers of graduates emerging from new, innovative programmes are too low, at present, to make a substantial difference overall. A critical mass is required for a significant change to be recognised and time is of the essence.

Ian:

We face a future that is increasingly unstable and less easy to predict. We all know that we are rapidly accelerating towards many new challenges, that this is unavoidable and that we are, to a large extent, in denial. We need to take urgent action for and in the education of our students.

I would make a positive comment here that, right here right now, this is the best opportunity for design that we have had since the Industrial Revolution. *"The great thing about the dilemma we're in is that we get to re-imagine every single thing we do . . . there isn't a single thing that doesn't require a complete remake. There are two ways of looking at that. One is: Oh my gosh, what a big burden. The other way, which I prefer, is: What a great time to be born! What a great time to be alive! Because this generation gets to essentially completely change this world"* (Hawken 2007)

What I have learnt in developing sustainable design at GSA is that the approach expressed in (2) above affords a positive way forward for the future. We can see great potential in designing for; real issues, real users, real situations and real life. It can offer tangible outcomes in being able to work across specialist disciplines including ecology, economy and society. It works in a virtuous cycle of philosophy and action. With this adaptive and flexible methodology we may find ways for design to help tackle global warming, reduction in biodiversity and the ethical issues surrounding the exploitation of other cultures to prop up our consumerist addiction.

I have found designing in this way with students has been very successful in social entrepreneurship including community based projects on the south side of Glasgow concerned with social issues surrounding waste and in Drumchapel with a wood recycling company strategically developing a bid for new funding.

One issue seems central here and this is peak oil (Bently 2002) and energy descent (Abdullah S, 1999). From this has grown the transition town movement (Hopkins, 2008). There is potentiality here for future design education in that this movement expresses a view of a positive ecological aware society that is actually in formation. Its views, actions and development forms a real opportunity for taking action in designing and testing new pathways for future sustainable design.

What do we think are the potential future pathways for design education?

Naomi:

I believe designers are natural pathfinders if they put their minds to it. Larry Keeley, Doblin Group in Chicago says (van Patter 2004) "In a world with far more designers, designing far more artefacts, there is a cadre of individuals who want to think deeply about what life could be, what it should be, and what our role is in closing the gap with our daily reality. Thoughtful designers must find one another, and continue to ask the tough questions"

My colleagues and I know that design management must move with the times. We must re-visit and re-examine the emphases of our educational models. With educators from London College of Communication and University of Dundee I have organised three symposia in the last year designed specifically to bring together practitioners, educators and researchers (who do not normally meet together) under the title of 'Metamorphosis of Design Management'. Key themes have emerged from this continuing discourse that include the changing contexts within which design management practice operates and the need to explore the changing roles of design management practitioners to help inform the process of new academic programme development.

The ds21 project also provides a direct examination of future pathways for design education. In the report 'Tools for Metadesigning' (Wood 2006) initial questions were raised with regard to this subject:

- Ecological design as a discipline is still too over-specialised, politically confused and emergent to make a sufficient impact. Our economic system encourages consumers (and designers) to live (and

design for) a scale and pace of consumption that can make Eco-design counterproductive.

Arguably, designing a 'total living style' is too complex for traditional modes of design because it would require the cultivation of a discourse of synergy that goes far beyond what conventional designers are trained to accomplish. Such a high level of complexity calls for the development of an appropriate mode of 'metadesign' that will incorporate synergistic methods within whole systems.'

In the same report, I asked (Gornick 2006) 'How do we teach 'metadesign' to design students and to practising designers? Should traditional design education transform itself into metadesign education? Could traditional design education transform itself into metadesign education (bearing in mind an equally traditional reluctance among design educators to countenance change)? Should there be a separate discipline of metadesign education, alongside traditional design education? Or should design education remain as it is, highly discipline-based, and other related professional disciplines ie sociology, anthropology, media, move into metadesign education?

In the global economy there is now a wider range of career paths for designers. From RCA and Brunel the numbers are small, but there are steady career development patterns. Here's an example of a 'new design professional'.

Jake McLaren was an excellent industrial designer who graduated from Brunel University MA Design, Strategy and Innovation in 1996 with distinction. As a result of his specialist thesis on recycling electronic hardware he worked with Nokia for 8 years at their HQ in the UK as Environmental Specialist, Design for Environment. His role was to embed and manage environmental issues within the R&D function of Nokia. The scope of his work was development of mobile phone products, within the Multimedia Business Group. This is very much about operating in an influencing mode to make sure all the disciplines involved in R&D take care of various environmental issues. In short, he was acting as a environmental design champion within the company.

His tasks in Nokia included, defining and managing environmental requirements, managing research and internal implementation projects, supporting and training R&D programmes during product development and representing Nokia UK regarding environmental issues to suppliers, customers, media & government.

Learning from Jake's and other graduates' career experience a new educational model for design begins to take shape for discussion:

Traditional design education

Design discipline pathways
Individual projects
Designers relating only to design
Starting from Zero
Technical skills
Design in Theory

Towards Metadesign education

Understanding design holistically
Working in Teams
Designers and synergistic context
Value of Constraints
Analysis and Synthesis
Design in Practice

Ian:

The Glasgow School of Art, Plymouth University and HDK Göteborg are constructing a joint project with Transition Town Totnes for the spring of 2009. This project, based on eco sufficiency and resilience will concern itself with the pragmatic

growth of knowledge in the expectation of discovering new ways in which design may work within an ecologically aware society and how an ecologically aware society may work with an expanded social view of design. The two key philosophies mentioned above can be expressed thus:

Eco-sufficiency:

- Requires a reduction of the level of production and consumption.
- Has potential to reduce substantially use of natural resources without compromising human wealth.
- Is closely related to issues of quality of life and life-balance
- Wide spread eco-sufficiency will only occur when less material wealth brings increased well being or happiness to individuals and societies.

(Wuppertal Institute 2005/2006 & SERI's 2007)

Resilience

A resilient system:

- Is adaptable and diverse.
- Has some redundancy built in.
- Acknowledges that change is constant and prediction difficult in a complex, dynamic world.
- Understands that in manipulating individual pieces of a system, it changes it in unintended ways.

In a resilient system:

- People, companies, communities and countries draw on support and resources from elsewhere.
- Components are self-sufficient enough to provide for essential needs in emergencies.

(Ward 2007 & Dixon, 2007)

In this project we will look at how one supports the other, affects the other and transforms the other as a way of building new design vocabulary and tools for designing in the service of society.

This will also aid in the designing of a new set of masters programmes currently under development at GSA. As with the MEDes and BDes(hons) these new programmes will have an open architecture able to be flexible and adaptive in their future development. At its core is the idea of designing for the experience of living. In that I see design as a proactive agent in a transforming society. It builds on current experience and develops, amongst others, these tools: Social sciences methods, Co designing, Scenario building and story telling. Design activity will be based in the understanding of human activity through which we may afford service, system, object, interface and interaction design to symbiotically work better in the service of humanity. Embedded in this is designing in context where the activity (for instance brushing your teeth) and the players involved (say eight year old children) are explored thoroughly from which the design opportunities can be revealed (centred within the activity) and then the service system, product combination can be enhanced, altered prototyped and tested to improve the situation you are designing for.

One further opportunity is to learn from your students. Recently I saw a draft PHD thesis in HDK entitled Fashion-able (Heretic Journeys in Engaged Fashion Design) by Otto Von Busch. Here is his summary: Coming back once again to a designer practice, I think it would be something like this:

- Accessing technology
- Promoting transparency
- Empowering users
- Decentralising control
- Creating beauty and exceeding limitations
- Using the intelligence of many for innovation
- Making constructive assemblies
- Creating interfaces and sharing the knowledge
- Keeping the power on

Or to put this in a more metaphorical way:

- Explore the everyday
- Use tools at hand
- Start where you stand
- Be practical
- Leave the door open
- Colour outside the lines
- Multiply

The only thing that I would add to this is, accelerate.

The overarching driver here is that design can't of itself change the world but can be a significant part of a world that is changing. Designers must work in this world rather than about or upon it. (Wodiczko. 1999) In recent years I have had the good fortune to work with wonderful people from outside the traditional disciplines of design. All have openly expressed that most of what we are discussing in our changing world is, to a large extent, a design issue and a frustration that there seems little that design is doing in these issues. It is my ambition that future designing will be concerned with designing for, and here I purposefully repeat myself; real issues, real users, real situations and real life. In pursuit of this, design education will seek deeper relationships with disciplines able to transform society. This is an exciting prospect and one from which there is much to learn and opportunity to take action.

Summary

In drawing this dialogue to a close for the time being, we decided that the title 'conclusions' would be misleading. In essence, we feel that the conversations must and will continue until such time as relevant progress in design education is actively pursued by many, rather than just a few.

We have structured this paper to give an overall view of our own pathways and our joint concerns. Building on our own experience we can see common characteristics in ourselves, as well as the colleagues with whom we work and the institutions that enable our work to develop and grow. But more than that we and many of our colleagues seem to have developed antennae for the remarkable changes in economics, technology and society which are not only making traditional design roles outdated but also generating a rich field of opportunities. We seem to be able to convey to our graduates a strong belief in our programmes while not simply filling up the demand for student quotas. We aim for graduate employment but also send out a strong message for long-term ambitions for world-wide economic and

social improvement. We represent part of revolutionary global changes that carry designers towards new and meaningful roles.

In examining the current and future contexts of design education we wanted to investigate the predilection for change and the barriers to change. Our dialogue presents not only our thoughts but also the people who are influencing our thinking. If there is a message coming out of this paper it is this; there is a pressing need for a transformation of design education in general. Our society is in transition, new markets are emerging and the economy is finding new routes. We can and must be in the vanguard as proactive contributors, as this transition has much to offer designers. If we don't engage, our profession runs the risk of being further marginalised and irrelevant.

It is also imperative that we achieve a critical mass for change in design education. As we see more mass movement emerging in our society towards change so design should follow. There is a need to accelerate our activities. In respect of critical mass it's worth reflecting on the 80/20 rule (Juran 1951). The rule asserts that approximately 80% of the effects generated by any system are caused by 20% of the variables in that system. So, in our society, markets and economies we could say that 80% of the change comes from 20% of the people.

This initial dialogue has been valuable. We see also that there are many more design practitioners and educators wishing to engage in this type of debate, many of whom are willing to take ideas into action. We had an indication of this, last year, in San Francisco. We believe that there are a number of new educational and design practice initiatives world-wide that would benefit from being connected. A comprehensive survey needs to be carried out at the earliest opportunity to determine the rationale of these programmes and where they are taking place. This research should explore, at an International level, those advanced practices with which we could have a deeper more prolonged dialogue on these pressing issues.

We believe that:

- We are all part of revolutionary global changes which carry designers towards new and meaningful roles
- Change in education must be actively pursued by many, rather than just a few
- It is imperative that we achieve graduate critical mass to engender this necessary change
- Action is more important than theory in this accelerating arena

Finally, we put forward two familiar quotes as encouragement to educators contemplating taking innovative leaps in pursuit of change towards a better world through the education of their students who are, after all is said and done, our future society.

"You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete"

- Buckminster Fuller

"First they laugh at you, then they ignore you, then they fight you and then you win"

- Ghandi

References:

- Abdullah, S. 1999, *Creating a World that Works for All*. Berret-Koehler
- Aldous, T, Dzierski M, Gornick N, Grout I, Justice L, Manzini E. 2007 *Future of Design Education Seminar*. ICSID Connections Conference San Francisco.
- Bentley, R W, 2002, *Global Gas and Oil Depletion: an Overview*. Energy Policy 30
- Blueprint Report. 2008. *UK Design Industry Skills Development Plan*. London: Design Council, Creative & Cultural Skills
- Bornstein, David. 2004, *How to Change the World*. Oxford University Press
- Carter, David. 1977. *Carter Report on Industrial Design Education in the United Kingdom*. Design Council
- Corfield, K.G. 1979. *Product Design. A Report for the National Economic Development Council*
- Dixon, Thomas Homer. 2007. *The Upside of Down*. Souvenir Press
- Gibson, J J. 1977. *The Theory of Affordances*. Laurence Erlbaum
- Gornick, Naomi. 2006. *Convergence: Management imperatives and their effect on design activity*. Design Management Review. Vol.17, No. 2. 35-43
- Gornick, Naomi. 2006. *Education for Metadesign. Tools for Metadesigning*. Workshop Report. Design Council
- Gornick, Naomi, Johns, Stephen, Rogers, Amy. 1995. *Business and Management Studies in Design Courses*. London: Design Council
- Grefe, Richard. 2006. *The Evolving role of AIGA*. ICOGRADA Newsletter
- Hayes, Chris Associates, Dorsey, Keller associates. 1983. *The Industrial Design Requirements of Industry*. London: Design Council
- Hawken, Paul, 2008, *The Ecologist Magazine, September 2008*
- Hopkins, R. 2008, *The Transition handbook*. Green Books
- Juran, Joseph. 1951. *Quality Control Handbook*. Mc Graw-Hill
- Lieven, Anatol. 2006. *The end of the West as we know it?* International Herald Tribune. Dec. 28. Opinion.
- Mc Donough, William and Braungart, Michael. 2002, *Cradle to Cradle*. North Point Press
- Meroni, Anna (editor). 2007. *Creative Communities (EMUDE)*. Edizioni Poli. Design
- Mintzberg, Henry. 2004. *Managers not MBAs*. London: FT Prentice Hall
- Papanek. Victor. 1972. *Design for the Real World*. Paladin
- Pye, David, 1968, *The Nature of Art and Workmanship*. Cambridge University Press
- Report. 1984. *Managing Design-An Initiative in Management Education*. CNA, DTI, Design Council
- SERI's, 2007. *happiness and sustainability*. Annual Report
- Schumacher, E F. 1973. *Small is Beautiful*. Blonde and Briggs Ltd
- Stacey, Ralph D. 2002 *Strategic Management and Organisational Dynamics: The Challenge of Complexity*. Harlow: Pearson Education
- Stern, Sir Nicholas. 2006. *The Stern Review: Economics of Climate Change*. Cambridge: Cambridge University Press
- Van Patter, Garry. 2007. *Rethinking Wicked Problems conversation with Min Basadur*. NextD Journal, Issue Ten, 10.1
- Van Patter, Garry. 2004. *The Business of New conversation with Larry Keeley*. NextD Journal Issue Two, 2.1 .www.nextd.org
- Ward.C, 2007. *The case for resilience*. www.tomdispatch.com
- Womack James and Jones Daniel, 1996, *Lean Thinking*, Simon & Schuster
- Wodiczko, Krzysztof, 1999. *Critical Vehicles*, Cambridge: MIT Press
- Wood, John. 2006. *Tools for Metadesigning*. Workshop Report. Design Council
- Wuppertal Institute. 2005/06. *Eco-sufficiency and Quality of Life*. Annual Report – Cross Cutting Projects
- Zuboff, Shoshanah and Maxmin, James. 2003. *The Support Economy: Why Corporations are Failing Individuals and the Next Episode of Capitalism*. London: Penguin