Designing Design Futures

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ABSTRACT

This paper charts the way in which the Design Futures programme at the University of Brighton has been formulated to accommodate emerging methodologies, knowledge and skills necessary to the designer in an increasingly complex world. It examines how design research has been placed at the center of the curriculum and a responsive and flexible approach to learning and teaching is being adopted to foster innovation.

In order to do this the paper discusses the four inter-related foundational drivers, which it is argued are at the core of changes in how design is practiced and understood, and thus have a profound impact on the nature of design education. Therefore, the paper examines how these central concerns have been addressed in the design of the curriculum, in terms of both content and approach.

KEY WORDS: Design Futures; Research; Interdisciplinarity

INTRODUCTION

The Design Futures programme at the University of Brighton, which runs from BA(Hons) through to MDes and MA, has been established as a response to the proposition that design education requires radical rethinking because of fundamental shifts in the nature of contemporary design practice, and the social context in which it operates (Buchanan 2001; Cross 1999; Findeli 2001; Frascara 2007; Norman 2010). Whilst being informed by existing discipline identities, and drawing from their subject knowledge, Design Futures shifts its educational focus to a post-disciplinary culture of design thinking. Consequently the programme has been designed to encourage students to become 'researcher-designers' who are able to envision, locate and articulate new contexts for professional design practice, just as they develop innovative approaches through the processes of design intervention.

This paper examines the principles upon which the Design Futures programme has been based, with the intention of accommodating emerging methodologies, knowledge and skills, which are developing as a response to the increasing complexity of contemporary culture and design practice. It examines how design research has been placed at the center of the curriculum, and a responsive and flexible approach to learning and teaching is being adopted to foster innovation. The purpose is to demonstrate how this is being implemented to reflect the changing nature of the work of a designer and the constraints that serve to delimit the scope of such knowing and acting.

In order to do this the paper discusses four inter-related foundational drivers, we argue are at the core of changes in how design is practiced and understood, and thus have a profound impact on the nature of design education: the need for designers to be able to work with a range of other practitioners in interdisciplinary and transdisciplinary contexts, which means that the designer must become a negotiator of the constraints imposed by often conflicting and contradictory agendas; the growing importance of having the dynamics of people's behaviour at the center of the designer's activity; the way in which the role of the designer is to act as one who adds or enhances value, as they are much more involved with the strategic planning stages of projects and the wider analysis of their purpose and effectiveness; and the way in which technological and social change is altering the conditions in which the designer must operate.

Thus, the paper examines the first three of these pillars of the programme to make it possible to reflect upon the way in which the fourth over-arching concern is to be addressed. In this way it is shown how the intention has been to construct an approach that will provide the designers of the future with not only a flexible and adaptable set of skills and approaches that can be constantly reconfigured to keep abreast of the challenges of an unpredictable future, but also the ability to see why such responsiveness is necessary and how it is to be achieved. Finally, it is asked what constraints will bear upon the programme itself in the future and which methods of reflexivity and self-criticism will need to be employed to ensure that the central mission of the educational framework is maintained.

DESIGN THINKING AND THE INTENSIVE TURN

Though it is a contested term, and it is not within the scope of this paper to rehearse the debate in detail here, it is initially worth noting that the development of the discourse of 'design thinking' has served to establish that design is not simply concerned with aesthetics and styling, or even primarily with innovation as the creation of artefacts, but rather that it can be understood as a reflective practice (Johansson-Skoldberg et al. 2013). That is to say design is a way of reasoning and making sense of things that is ultimately involved in the creation of meaning, as much as it is an analytical tool or practical method for solving problems. For the best part of a century the model for design education has been that which was initially worked out at the Bauhaus and the New Bauhaus, one predicated upon what can be described as an extensive materialism intended to make better physical things. Arguably the biggest effect this institution had was that it established as a central principle of design education that there should be a Basic Course, a preliminary stage where the fundamentals of design as a practice concerned with form and function were taught (Lupton 1996). This was a revolution then, and was applicable to the circumstances of the machine age. Now, given the extent to which designers are expected to be more than 'form givers', as they work with intensive dynamics and the shaping of systemic relationships (Lash 2010), a new model is required. As Richard Buchanan noted at the beginning of this century 'With the move away from visual symbols and things as the focus of attention, designers and design theorists have tried to understand products from the inside—not physically inside, but inside the experience of the human beings that make and use them in situated social and cultural environments.' (2001: 13). Thus design education must take into account not just form and function (which still remain fundamental concepts), but their dynamic (inter)relationship at the level of function-*ing* as a socially determined process.

DEVELOPING THE DESIGNER-RESEARCHER

Through an appreciation of the implications of the discourse of design thinking and the turn to intensive, socially determined dynamics, it becomes clear that the new design school must be concerned with educating the practitioner to become a researcher – in that they are able to apply *method* to the analyses of situations or phenomena to be addressed. This is then the development of an approach that will allow practitioners to establish an explicit methodology prior to what has traditionally been understood as the design process proper. It is also to equip them to extend critical analysis further than has been standard practice to include an appreciation of the *effects* of design (Fry 2009). That is to say, students need to learn to evolve and articulate problems before they make any attempt to provide anything that may constitute a 'solution', just as they must be able to see that any design is also a new starting point. In this way the intention is to make the methods of design practice and research visible and comprehensible and establish an enhanced flow between personal (internalized) learning and shared (externalized) experience (Kolko 2010). It is then intended that such experiences will be developed through a project-based curriculum, since the project can be described as the essential 'unit of work' of the designer, and can thus be seen the essential context in which designers and clients interact (Peralta 2013: 76).

Yet what is the introduction of research into the curriculum to mean in practice? Donald Norman has called for an approach that emphasizes the role of 'social and behavioral sciences' (Norman 2010), with the suggestion that this will introduce more rigour to the curriculum. However, where this has been applied (as in the Department of Industrial Design at Technical University Delft, to give Norman's example), such a methodology, one based in what can be described as 'user-' or 'human-centred' design perspectives, though producing some insights and approaches to the understanding of how people interact with products (see for example Desmet & Hekkert 2007), has the tendency to capture a somewhat narrow view of the realities and potentialities of how people live with things and what they mean to them, as is discussed below. Yet there are other extant

examples of research driven approaches to design education, and though there is not space to examine them all, two are pertinent here. In the 1990s at Carnegie Mellon in Pittsburgh USA, a one-year multidisciplinary research-based design course was created to serve the wider institution.

The course attracted students from a range of disciplines (such as Engineering, Architecture, Computer Science, Industrial Administration and Industrial Design) and focused on a live brief developing wearable computers. By involving students in a project with an industrial partner they were exposed to practices that depended upon reflection and evaluation, 'team-work synergism, the practice of cooperation and appreciation of different talents, the experience of multi-disciplinary research in an industrial project and… exposure to the complete cycle of design from concept to final production' (Amon, et al. 1996: 20). Also, during the first decade of the 21st century, the University of Art and Design in Helsinki developed a model whereby the interdependence between practice and research was established through the development of what they described as 'a matrix' where students could 'combine traditional design skills with research driven approaches and insights.' (Keinonen and Koskinen 2007). To such strategic ends research staff were required to take a more direct role in teaching and tutoring, as it was made possible for students to join research groups related to their thesis projects.

Thus models exist whereby students are involved in live projects, in which they can learn through practice; it can also be demonstrated that it is possible for researchers and research thematics to come closer to the students' direct educational experience. The challenge then is to combine such approaches and run them not as discrete elements of the course (or situate them at post-graduate level), but embed them in the whole process of learning and teaching throughout the programme.

In such ways, regardless of design specialization, research can become an underpinning factor in the framing of problems, the mapping of context and connections, and the communication and articulation of approaches. The intention, therefore, is to establish research as an enabling meta-tool for dealing with complexity as the curriculum has been built around an integrative ideal, where research, in fact, becomes the connecting link between all the practical study areas, which then broadly map onto the research domains of 'Why?' 'What? and 'How?', which are pursued by staff and students alike.

Consequently the proposition is to place the emphasis on developing students' appreciation of what might be described as the *why* of design: what the purpose of any project might be, as this will therefore structure the 'what' and the 'how' of any practical approach to be taken. In the developing systemic paradigm this could then be described as the fostering of what can be understood as 'the why of systems' (Taylor 2013: 59). Buchanan has argued that to such ends the foundation course can be replaced by a first year 'grounded in rhetorical purpose', as students examine the reasons for intervening as a designer in any given instance. However, Design Futures in this conception is more in line with Alain Findeli's ambition of constructing a programme of study whereby 'instead of having this basic design taught in the first year as a preliminary course, as in the Bauhaus tradition, it would be taught in parallel with studio work through the entire course of study, from the first to last year' (Findeli 2001: 16). A singular constraining factor, then, will be that the level of integration shall be such that it becomes impossible to pinpoint precisely where research 'sits'. This means that it will be necessary to make clear to students that research can provide an underlying (or overlying) framework of connections reflective of a process of change that is both constant in its pressure and continuously emerging in real-time.

THE POLITICS OF THE INTERDISCIPLINARY

Underlying such pedagogic innovation is the observation that that the role of design has changed. Its scope reaches new areas in which complexity and uncertainty reigns, where social interaction is at the core of business, and the challenge is one of establishing what Nigel Cross has called 'an inter-disciplinary discipline' (1999: 8). As Jorge Frascara argues, the field of intervention has expanded to include the design of 'processes, services, structures and systems, and to the creation and promotion of ideas and principles; in sum, to a series of activities that could be defined as the design of the contexts within which traditional design operates' (Frascara 2002: 34). This is thus a model of design practice in which the designer must become as much a facilitator and mediator of others' interconnections as they are an agent that devises 'solutions' for these collaborators (Julier 2008). In such a situation the qualitative dimension of the development process emerges from the

depth of articulation, the capturing, of the point of intervention as seen from the perspective of different disciplines (Kermik et al. 2013: 56).

It is envisaged that the Design Futures student will become a negotiator of the constraints imposed by often conflicting and contradictory agendas. As it is the intention that through the employment of partnerships, both inside and outside the University, Design Futures will triangulate its programmatic ambitions based in research, the practice of design and the functioning of design output, it is inevitable that the priorities of external partners will to some degree determine what can (and cannot) be achieved in any given relationship. This, however, though it is clearly a constraint in one sense, can actually be seen as productive, in that it will give students valuable experience in balancing the needs of those with whom they work with their own ambitions. Such partnerships are to be introduced and conducted at the local, regional and national level to involve a range of different types of organisation, including commercial, public sector and development agencies. Thus through such projects learners will be exposed to a range of different real-world pressures that will inform their learning, develop relational skill sets and deepen their knowledge of the socially determined nature of design.

PEOPLE ORIENTED DESIGN

We believe that the focus of design practice should be the study of people and how they live. This, however, is not to adopt the essentially Taylorist model of 'user-' centricity (Shove et al 2007). The discourse of 'user-centered' design has had the tendency to take the form of a reductivist anthropology, which renders the imagined user primarily as a consumer, or as a form of reactive mechanism constituted by their relationship to ergonomic stimuli, which can be studied through a form of applied psychology (Almquist & Lupton 2010; Jordan 2005). In the field of human computer interaction and usability this approach has come to be known as Human Centered design. Don Norman has suggested that this may even be harmful, to the extent that it is an argument that technology should always bend to the apparent needs of the user, and suggests instead that Activity Centered Design be substituted (Norman 2005). However, the assertion here is that design in the systemic paradigm, whereby any form of action must be concerned with the understanding of processes, there can be no 'center' at all. If innovation does not map onto a product (or the activity of a user) but a process, one which 'involves the lengthy development and application of new knowledge and skills, rather than being an easily identifiable event' (Hobday et al. 2011: 6), then such a process will involve all of the constituent elements, designer, user and their wider social context, as a temporal phenomenon.

As even the UK Department for Trade and Industry has emphasised: 'people in their social context rather than task-centric users should be considered a fundamental source of innovation' (Wakeford 2004). This is not least because new design outputs such as services, systems and experiences inevitably involve the participation of the network of stakeholders (and the wider constellation of actants) in their operation (Krippendorff 2006). Even on an operational level, then (and prior to advancing essentially political arguments concerned with agency and democracy), the systemic paradigm suggests that design must become a people oriented participatory process; and as Elizabeth Sanders notes, in participatory practice, 'the roles of the designer and the researcher blur and the user becomes a critical component of the process'. This then has the potential to render the 'deliverables' of design 'more meaningful to the people who will ultimately benefit from them' (Sanders 2005: 27). So the limits of the possible in any given situation will be defined by the capabilities of all the actors in any given participatory process, in relation to the affordances of the context in which they operate. The concept of 'design capability' can broadly be defined as the capacity to transform specific circumstances as determined by the skill-sets and abilities of those coming to the issue. An understanding of design capability, whereby design professionals are seen as participants in a process involving many actors in a specific context (Hobday et al 2013), thus guards against what can be described as the performative function of technologies and techniques employed – whereby the conditions of their functioning reproduce the ideological conditions of their establishment (Taylor 2010). Maurits Ertsen argues, as both the context and the issues relevant to any 'problem' are necessarily variable, so each design capability has the potential to result in new technologies or approaches every time it is employed. However, the danger is that once a specific apparatus has been evolved, 'this technology starts to speak its own "language." It starts to figure as the latest and thus the best solution for all sorts of problems', resulting in the capability becoming 'frozen' (2005: 148). This then calls for an endlessly mutable and responsive process, one which constitutes a shift in the design discourse from the detached and rational concept of humanity, to the more familiar and inclusive concept of people, and ultimately towards a people-

oriented design. It should be made clear that in such a situation, as Sanders observes, 'new rules call for new tools'. (2005: 2)

STRATEGIC DESIGN AND VALUE CREATION

Ultimately design as a practice takes place within a wider social structure. As Frascara notes, in the development of anything which may be described as useful design research – and thus have the potential to form the basis of contemporary design education as discussed above - any problems addressed must not only be demonstrably belong within the discipline of design and be a model for the profession as a whole, they must also be 'socially relevant' (2007: 66). Certainly the practice of design has increasingly come to interface with business and designers are much more involved with the strategic planning stages of projects, analysis of their marketing potential and the examination of consumer response to products (Julier & Moor 2009). In this way designers have, to a large degree, become concerned with the creation and enhancement of value. This, however, is not exclusively (or even essentially) a business practice (and the question is not simply one of how design can service the needs of commerce), rather the question becomes 'how can design act to develop value in products, services and systems in ways that are truly meaningful for all of those involved?'

So, Design Futures as a field has been developed to confront the situation that in the wider cultural context in which it operates, an impoverished, dismal rationalism dominates, one which argues that it is the balance-sheet that determines the problems to be addressed and a strict functionalist approach that will compute the line to be taken. Finally this is a singularly powerful constraint to innovation in the field of design education, in terms of design as a field of professional activity, on the level of commercial advantage, and in the context of cultural development. Letting accountants and pseudo-scientists dominate the nature of change, (which at its base is what innovation is, just as it constitutes the field of operation for design), means that the resultant theory and practice is tooled for the maintenance of operational efficiency, but goes little way to accounting for, or more importantly creating the conditions for, the breaking of routine and the creation of truly new visions and scenarios. So, a fundamental constraint faced in the establishment of this programme will be to convince students brought up in a goal-orientated, single-solution driven education system that design is not actually a problem solving activity, at all; that it can actually be understood as a generative and creative approach to the alteration of conditions – which in the end can have no 'right' or 'wrong' answer.

NARRATING THE FUTURE

By way of conclusion then, and to address the final issue of how students are to be equipped to face an uncertain and essentially unknowable future, it is perhaps worth reiterating the constraints and challenges identified throughout this paper and pointing towards ways in which the designers of the future must be able to reinvent themselves. In recent years many, particularly in the field of business, but also in the domain of social activism, have sought to co-opt design and its methods.

If Design Futures is not simply to exacerbate this trend, those who practice design in this way must develop a clear sense of their identity: what they can offer, why and how; particularly to the extent that it is different from what others in alternate but often closely allied fields can do. Because it has become such a fundamental underpinning mechanism of collaborative modes of practice, it becomes impossible to identify definitively where research is situated. This will mean that the designer must become, perhaps above all else, an effective communicator. To such ends, practitioners will need to be able to speak many languages, but not lose sight of their identity as a designer. To face the challenges of the future they will need to be able to acquire new skills without the old ones being lost. Finally the programme itself must be able to change, to constantly be open to reconfiguration as we move into the future.

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