Brave New Worlds: Transitions in Design Practice

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Abstract

This paper describes transitions currently happening in design practices engaged in service innovation, service design and service futures. It is the result of an empirical research investigation into how design practice is changing and offers insights into four key transitions that have emerged arising from the research. The research imperative is to understand how the roles of design and designers are responding to shifting societal, economic, political and ecological needs. The research investigation involved interviewing and drawing insights from three different communities. In total we interviewed 25 design agencies, five organisations embedding design and 12 design academics. Nine out of the 25 are service design companies, ten are working in the related field of strategy and design innovation and the rest are in other related design disciplines. Although service design companies only form a third of the case studies, it is important that service design looks outside its (blurry) professional boundaries to inform how their own practices can remain relevant to our times. The originality and richness of the research investigation lies in investigating transitions happening in innovative practices that are diverse in terms of disciplines, geography and their approaches, in order to capture how design is changing within different contexts. This research is significant in that it highlights four key transitions happening in both developed markets as well as in emerging markets. These transitions are: 1) The expansion of the designer's role to include new positions as facilitators, educators/capability builders and entrepreneurs. 2) More prominent collaborations by designers with end-users, other designers and professionals from other disciplines. 3) The diversification of business models of a design practice away from a consultancy model. 4) The expectation and requirement of designers to externalise and demonstrate value quickly, clearly and convincingly. The case studies have been compiled into a book, Design Transitions, recently published in 2013. The focus of this paper is to articulate these four transitions in more depth and explore their implications for service design practice.

KEYWORDS: changing practices, roles of designers, design value, design management

Introduction

The most interesting creative opportunity for design today is to redesign the very nature of design itself. Tim Brown – foreword to Design Transitions (2013, p. 7)

We live in interesting times – designers are expanding their professional boundaries, moving from designing objects to designing services and experiences, to designing for positive social change. Examples of design operating beyond its traditional boundaries have been discussed and covered extensively in contemporary literature (for example Buchanan, 2001; Burns et al., 2006; Thackara 2007; Brown, 2009). Designers (particularly those involved in designing services) are increasingly expanding their roles (Tan, 2012) and becoming facilitators of creativity, conversation and

collaboration among multiple stakeholder groups (Han, 2011). Design thinking and approaches are also slowly permeating through larger organisations, and many designers now adopt entrepreneurial models where they co-own outcomes and develop and implement ideas with partners. While designers are still very much drawing upon their fundamental skills, their changing roles are witnessing these skills being used in different ways, with different people and in different contexts. But how are design practices changing exactly and what does this mean for service design? What are the drivers of these changes? And where will this ultimately lead service design in the future?

Historically design has undergone several expansions, from craft-based design, to applied aesthetics, to applied (human and social) science, to a more complex science (Findeli, 2001, p. 7-9). This on-going reframing of design practice and the expansion of societal roles for designers is often discussed anecdotally but rarely researched or documented due to its transitory nature. Hence the aim of the original research was to document current transitions experienced through the eyes of the design practitioner and to use these personal reflections to a) understand how the discipline is evolving, b) identify areas of transition, c) uncover emerging areas of innovation and d) reveal gaps in our current understanding of design practices. This paper draws upon insights gained from the research to discuss and speculate on the implications for service design practice.

What are Design Transitions?

John Heskett (2002, p. 6-7) argues that the history of design can be seen as a process of layering:

> *… in which new developments are added over time to what already exists. This layer, moreover, is not just a process of accumulation or aggregation, but a dynamic interaction in which each new innovative stage changes the role, significance, and function of what survives.*

This research posits that design practice is continually changing, adapting and expanding in order to respond to societies' current needs, to maintain economic relevance, or to exploit new technologies. Design transitions (as a term used in this research) are moments when commercial design practices evolve to explore new design trends to maintain economic relevance, to meet societies future needs or to work with new technologies. William Bridges, an organisational consultant in his 2009 book *Managing Transitions* differentiates between changes and transitions. Transitions are when something no longer fits or is inadequate and the transition begins with letting go of this held idea. He suggests that a transition happens when it is "time to let go of an idea or an assumption, a self-image or a dream… A transition concludes when something new emerges from your inner neutral zone" (pp. 97-98). According to Bridges, organisations going through a transition period experience three stages. We have interpreted how these three stages relate to design practices in brackets:

1. Endings (letting go of existing practices and models)
2. Neutral zone (working out their new focus and purpose)
3. New beginnings (forming a view of new practices and models)

Each transition results in designers' creative practices evolving and focusing on different elements of their expertise, and usually involves designers reframing the boundaries in which they operate in and the value of their skills. These transitions are fluid and often not outwardly obvious, hence the need to uncover and document these changes. A transition may result in: an expansion of the core skill-set of a designer; an application of a core skill in a non-traditional manner; an expansion of professional boundaries into management, strategy and policy; changes in outputs and value; and changes in the role of a designer. In each case study, the authors have tried to identify instances where the individual or practice has moved from one state to another by asking them to use project examples to illustrate their perceived transition of practices. The process of collecting stories using

the method of 'episodic narratives' (Flick, 1997) helped the study identify individual experiences of change and to connect it to a more abstract, generalised understanding of organisational transitions.

Research questions

In order to capture and consider the current transitions happening in design practice, we captured three different viewpoints from the community. The *first viewpoint* documents designers' reflections on how their practices are changing. A collection of 25 case studies brings together some of the world's leading innovative design practices that are challenging the traditional notions of designing and are operating in new design spaces. The authors then explored the working processes of the selected 25 practices, uncovering how they have transformed their practice, and documenting their reflection on these transitions in order to identify the factors driving them. The *second viewpoint* focuses on organisations aiming to introduce and embed design approaches into their core practices and operations. These 5 cases illustrates how design thinking and methodologies are moving beyond the boundaries of design practices and have a new presence inside organisations such as large corporate and government departments. When questioned, the organisations described the context in which design-led approaches are being embedded into their organisation: how this is being done; why they have done so; and what has been its impact. The *final viewpoint* features interviews with 12 leading design academics, aimed at offering additional insights and a critical perspective on the key themes that have emerged from our case studies and interviews. We asked these individuals to share their reflections on how they perceive design as a discipline to be evolving, what factors are driving these changes, and where they see design moving next.

Research process

The research is focused on design fields experiencing the most observable changes, that are challenging their professional boundaries. This led us to focus our research study around the fields of service design, design innovation, creative digital practices, design futures and social design. To select and study examples of how design practices are changing, we used a snowballing sampling approach, a technique for collecting research participants through the identification of initial subjects who then recommend the names of other possible participants (Lewis-Beck et al., 2004). We identified a set of initial criteria, selecting organisations that:

» Are design-led – meaning that an organisation does not need to consider itself as a design practice or to function as a design consultancy, but it does need to be using design-led approaches in its core philosophy.
» Are considered by the design community to be 'innovative' and 'pushing boundaries.'
» Have experienced significant transitions (as defined earlier in the paper) in their practice.

In addition to these criteria, we also wanted case studies to represent a cross section of different design fields, located in different geographic regions, operating in different markets (developed and emerging) and to consist of smaller to more larger, established practices. We began with a long list of suitable practices based on our own research, supplemented by crowdsourcing (by asking the design community to suggest names through social media channels) and finally through a snowballing approach. The initial list consisted of 85 practices subsequently narrowed down to a shortlist based on the criteria set out above. Practices in the shortlist were contacted and asked if they would be interested in being interviewed for the research. We also asked participants to recommend other suitable individuals for us to speak to, as part of the snowballing sampling process. The final list of 42 participants (divided into design practices, non-design practices and design academics) is listed in Table 1 below.

List of design practices (in categories)
Products/Design Futures: Droog (NL), BERG (UK), Superflux (UK) / Design Art: PHUNK (SIN) / Design of Services: Fjord (UK), live|work Brazil (BR), User Studio (FR), WorkPlayExperience (GER) Social Design: thinkpublic (UK), FutureGov (UK), We Are What We Do (UK), Snook (UK), Uscreates (UK) / Design Research: STBY (UK & NL), Hakuhodo Innovation Lab (JPN) / Strategy/Design/Innovation: DesignThinkers Group (NL), Idiom (IND), INSITUM (BR), Optimal Usability (NZ), frog Asia (CHN), designaffairs Shanghai (CHN), Claro Partners (SP), Asilia (UK & KEN), Zilver Innovation (NL), Ziba (US)
List of organisations looking to embed design-led approaches
Novabase (PT), ISVOR (BR), Radboud Reshape (NL), InWithFor & The Australian Centre for Social Innovation (TACSI) (AUT), Minas Gerais Office of Strategic Priorities (BR)
List of design academics interviewed
Robert Young (UK), Tom Inns (UK), Banny Banerjee (US), Paul Rodgers (UK), Mike Press (UK), Lucy Kimbell (UK), Carlos Teixeira (US), Ezio Manzini (Italy), Cameron Tonkinwise (US), Andrea Siodmok (UK), Xin Xiangyang (CHN) and Adam Greenfield (US).

Table 1. A list of the range and geographic location of practices and individuals interviewed for this research

A majority of the interviews (65%) were conducted remotely over Skype to save costs, a smaller percentage of the interviews (25%) were conducted face-to-face and the rest through email questions (10%) over a period of 12-months. In most cases we tried to arrange the interviews with the design practices first but due to participants' schedules, there was no fixed sequence in which the interviews were undertaken. In the majority of cases, we interviewed one key individual who has either been a founding member or part of the executive team. In five cases, we interviewed more than one representative from each of the practices. Interviews were recorded and fully transcribed. The transcripts were used as the raw data to confirm if a practice has experienced Bridges' three stages of transitions (2009) and if so to uncover recurring themes (which were coded) and to use these insights to inform the identification of commonly experienced transitions. The research team then shared the written report with the participant(s) to ensure that our narrative interpretation was an accurate reflection of the practice's story. In some cases, it took further discussion to clarify the points made but in a majority of the cases, the practices made minor comments and clarifications, suggesting robust interpretations. Following analysis of the transcripts, we then used the interviews with leading design academics to triangulate and offer critical commentary to the key themes that had emerged in our interviews with the design practices. The result of the study is the identification of four key transitions, which we will now discuss in the next section.

Transition 1: Expanding roles

Today's designers are engaging in a plethora of activities that are redefining the discipline's core practices, taking on new and varied roles beyond that of a form-giver. Some of these new roles have surfaced and become more prominent due to the emergence and establishment of service design projects over the last 13 years (since the first service design company, live\|work started in 2001) and the increasing recognition and adoption of design-led approaches in service and product innovation projects. It is not suggested that these roles are new, simply that they are now being performed increasingly by designers due the expansion of design into service, strategic and innovation sectors. Various researchers and design commentators have attempted to identify what these new roles are. For example, Valtonen (2005) maps the changing role of the Finish industrial designer from the 1950's – moving from being the sole creator of primarily products, to working within multi-disciplinary teams to tackle technological complexities, to becoming end-user experts,

to roles in design management, to creating experiences and brands, and finally to that of "pushing innovation" in a national context. In 2007, at the InterSections 07 Conference, conference Chair Jeremy Myerson identified four new roles of the designer as *strategist*, *co-creator*, *storyteller* and *rationalist* (Myerson, 2007). Since then, other initiatives, such as the Victoria & Albert Museum's think tank, The Future Designer, have also debated the role of the designer as *celebrity*, *collaborator*, *accelerator* and *synthesizer* (V&A, 2008). In 2009, a consolidation of interdisciplinary design projects for the Designing for the 21st Century Research Initiative identified more roles of designers, which included the designer as *negotiator*, *facilitator*, *visualiser*, *navigator*, *mediator* and *coordinator* (Inns, 2009: 24-6). More in-depth research has been conducted on specific roles, for example Han's doctoral study in 2011 explored how service designers manage multiple stakeholder involvement in complex projects. Following on, another doctoral study by Tan (2012) identified seven roles of designers based on the Dott 07[1] public design commission projects: *facilitator*, *researcher*, *co-creator*, *communicator*, *strategist*, *capability builder* and *entrepreneur*. While this raft of roles are now acknowledged to be part of a designer's repertoire, the three most often discussed and present in our case studies are the roles of *facilitator*, *educator/capability builder* and *entrepreneur*.

Han (2009) suggests that Service Design projects should be perceived holistically as a process of knowledge generation and diffusion in a social context, involving a complex network of stakeholders. In our case studies the importance of managing this process via the *facilitator* role was frequently discussed, with designers recognised as being the "translator between all other parties…to bridge the different languages of the disciplines and to find common ground" (Futuregov). In project work around customer experience, the designer's role as facilitator was particularly important due to the numerous channels through which users and customers can now interact with their service providers, and their increasing demands for consistency and clarity across those channels. A key differentiation between the role service designers play as facilitator in contrast to say, management consultants involves the adoption of co-creative approaches to ensure that the needs of the stakeholders are addressed. Designers, unlike management consultants, do not take the position of being the expert on issues, rather as facilitators of stakeholder knowledge and experience. In the *Alzheimer 100* project, thinkpublic had a facilitation role to help shape ideas and encourage confidence in people's creativity enabling them to make meaningful and significant contributions to the final outcomes. In this role, thinkpublic opened up the design process to enable the public to   design as much as possible:

> *Our role as facilitators started to become quite important here. At that point we were quite purist in our co-design stance, and we were not going to push our own concepts. Instead we would take the role of 'opportunity spotter' by supporting people's ideas and making them happen. This made Alzheimer100 a transition project for us, because we were gradually stepping further away from our position as designers who shaped final ideas.*

Facilitating between different internal departments of a company has also become an important role for designers as discussed by the DesignThinkers Group:

> *We realised from our previous work that companies had a need for innovation facilitators, because they were struggling to collaborate internally. Organisations generally work in silos, and those silos are organised around market-driven efficiency….as facilitators we bring in an outside viewpoint, reinventing collaborations internally to create a culture of trust.*

The importance of the designer's role as *educator* and *capability builder* is most clearly demonstrated within the in-house design teams or large corporations, as evidence by the case studies from Novabase, Portugal's largest IT company, and Radboud ReShape, a programme run by one of The

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[1] Design of the Times 2007 (DOTT07) was a programme of public design commissions situated in the North-East of England, co-sponsored by UK's Design Council and the regional development agency OneNorth East. Its aims were to demonstrate how design and designers could tackle social issues in five broad areas of: health, education, transport, energy and food.

Netherland's largest medical university. For these in-house teams the biggest challenge is not so much up-skilling their fellow employees on design methodology and toolsets, but in changing the mindset and culture of an entire organisation. A common thread emerging from these case studies is the need to develop a training programme that will introduce, familiarise and embed design approaches throughout the organisations in a step-by-step and relevant manner. Pedro Janeiro from Novabase recognises the challenges he faces:

> *We know it will take time to really embed the culture of Design Thinking into Novabase. To overcome all of the challenges will require a lot more change management than design knowledge, and so we need to combine a lot of the well-proven techniques of change management with Design Thinking approaches.*

Carlos Teixera, Associate Professor at Parsons The New School of Design highlighted that while there is a huge need for design, there is currently a lack of design capacity in emerging markets. For example the population of Italy, around 60 million, would fit in the south Indian state of Karnataka which itself makes up only 5% of the entire population of India. So if the entire design capacity of Italy were brought into India, it would serve only a small fraction of the population. Since it is unrealistic to expect the existing number of designers to meet current needs, especially in the emerging markets, it makes sense for designers to adopt an *educational* and *capability building* role. For the design practices trying to take on this role with clients, this is often best achieved by letting these clients experience the design process for themselves. For example, in Uscreates' case, it is about showing them "how it is done, rather than doing the work on their behalf, thus enabling them to replicate the process (for themselves) in future projects". 'Educating' in this sense is not so much about formal training, but rather embedding a culture of design approaches (through doing), supported with specific tools that can be easily used by organisations without requiring further support from the designers. For example, it is quite common to see toolkits and manuals developed and deployed for this purpose, as demonstrated by Novabase's 'Do-it-Yourself' manual, which explains how Design Thinking can be applied, with details, photos and clear descriptions of the approaches.

The role of the designer as *entrepreneur* – and more recently, as social design entrepreneur – was also a common theme throughout the case studies. Social change through design is not a new phenomenon, there has been a participatory/cooperative design movement in Scandinavia as early as the 1960s and these approaches have continued to be developed throughout the 1980 and 1990s (for example Bjerknes et al., 1987; Greenbaum & Kyng, 1991). This focus on social change has been discussed as one of the key tenets of service design, for example 'transformation design' (Burns et al., 2006) which focuses on public and third-sector context; and practices operating as 'design strategy' and 'social design' (Szebeko & Tan, 2010). However, what distinguishes the transition in practice between the past and current context is that designers are the ones initiating and leading the change. These individuals and practices are also explicitly positioning their practices as social design, and in most cases taking the initiative to conceive, develop and implement new socially focused services. This entrepreneurial aspect coupled with a social agenda is evident in the examples from thinkpublic, FutureGov and Hakuhodo Innovation Lab, as they are moving away from the commissioning model to a focus on developing new services and platforms of innovation. For example, thinkpublic realise that if they can design a service for an organisation, they can also design an enterprise – which affords them ownership and steer over the final service and ensures a legacy beyond the project phase. Examples of social enterprises initiated by thinkpublic include the *Relative Friends* and the *After Work Club* services. For thinkpublic, the key challenge in starting a social enterprise is to ensure that the service provided is able to sustain itself. FutureGov is taking a similar approach as they begin to develop and run accelerator programmes in which they share their expertise in creating new products and selling them to the government. In Japan, Hakuhodo Innovation Lab has recognised the importance of nurturing innovators through the development of

an innovation ecosystem. They have set up the Japan Innovation Network (JIN) which intends to promote innovation and create a platform for both Japanese and global institutions to actively discuss the reinvention of corporate and social cultures of innovation.

Transition 2: Greater Collaborations

As design moves into a more fundamental, strategic role it has become essential to collaborate with disciplines and groups of people which have historically been outside of a designer's sphere. Robert Young, Professor of Design Practice at Northumbria University, sees this as the real opportunity and growth area for design education, and for designers "to act as interpolators for commercial companies, managing the cross-fertilization of disciplines in order to connect the dots, and bring products and services into being." The term 'wicked problem' has been used to describe problems that are highly complex and multifaceted, with no clear single discipline solution, and in response to this examples from the case studies indicate that designers are seeking out new collaborations with users, professionals from other disciplines, and networks of like-minded individuals to address these issues.

Designers and users

The realisation that the true drivers of change are often the end users, rather than the designer or their client organisation, has precipitated a need for designers to develop a better understanding of user and customer contexts. The move from designing *for* users to designing *with* users (Sanders, 2002) is not new, however what was once seen as a 'best practice' approach is now seen to be absolutely crucial for the success of the project, particularly in a service design and service innovation context. Tim Brown notes in his foreword to the Design Transition book (2013) that the rise of designing *by* users highlights how the democratization of many steps in the 'design supply chain' are forcing designers to reconsider their relationship with the users. As such, designers cannot simply pay 'lip-service' to the needs of users but must fundamentally change the way they perceive and collaborate with users. Users are not just there to 'test' and validate results, but are increasingly used to identify design opportunities and to help shape design briefs. At Idiom in India, design is used as a catalyst for radical innovation through their DREAM:IN project. The DREAM:IN project is a radical innovation project using an 'inside-out' process to change the focus from needs to dreams. It is an attempt to get people to think about sustainable ideas by creating new value and new meaning. Idiom's process uses collaborators, or 'Dreamcatchers' (trained field researchers), to connect with people and understand their dreams. The process then involves using insights gained from these 'dreams' to drive investments to help fulfil these needs and aspirations. The success of the DREAM:IN process has led to a DREAM:IN Brazil version that ran in 2012 and the creation of DREAM:IN Next Gen, which serves as an incubator space for new enterprises emerging from the project. Treating users as partners in the design process is particularly evident in Radboud REshape's example. Radboud REshape programme is part of the Radboud University Medical Centre, a teaching hospital, based in Nijemegan, The Netherlands. The programme was set up in 2010 in order to change the way healthcare is delivered by focusing on patient-centred care and bringing healthcare innovation into practice. All their projects are based on co-creation by involving the patient.

> *Our goal is to treat patients as our partners, and we would like to be partners to our patients. This means that we are no longer trying to change the workflow of patients to suit our system. It is not simply about changing the doctor's processes to suit the patient, rather that we need to design a process that will benefit both sides. (Lucien Engelen, founding director of Radboud REShape programme)*

Designers and other professionals

The culture change required before design can create genuine value within organisations (Design Council, 2013) has triggered recognition of another form of collaboration, between designers and the field of change management. Design practices including Optimal Usability, Claro Partners, STBY, FutureGov and thinkpublic, along with IT organisation Novabase, described in their stories the need for designers to "get better at change management" (Novabase) in order to "influence organisational cultures" (Optimal Usability). The challenge faced by Optimal Usability in enacting systemic change in large organisations like telecommunication companies or government agencies is their ability to influence organisational cultures. To do this effectively, requires working with change management professionals to support the changes that need to take place in these projects. In contrast, Claro Partners takes a different approach by offering their clients tools to enable them to manage their change, since they recognise that they are not change management experts. Novabase realised that to truly embed design thinking into any organisation as part of its core philosophy involves changing ways of working and change management is required to manage this long-term transition.

For FutureGov, the need to bring together other professionals, technology and design was essential in their project, *Patchwork* to embed the changes required. The *Patchwork* project was a response to the 'Baby Peter' incident, in which a 17-month old boy died in London after suffering more than 50 injuries – despite having repeated contact with social services over an eight-month period. This tragedy highlighted serious failings in the UK's child protection services, failings indicating a lack of coordinated thinking across agencies working with children. As a result, FutureGov put out an open call for support from a diverse group of practitioners, parents, technologists and researchers to find ways of improving the coordination and sharing of information. With a number of collaborators and partners, they worked on developing a secure web based platform aimed at joining up the teams responsible for supporting families, in order to enable earlier interventions and better outcomes.

Designers and networks

Although design practices tend to remain small, reflecting a desire to maintain flexibility and preserve their innovative cultures, they are also seeking ways to address larger scale problems by collaborating with other practices. Carlos Teixera is adamant that one way to address the problem of scalability is by designers working together through the use of networks. For example, DesignThinkers Group, FutureGov, INSITUM, Superflux, STBY and User Studio rely on their global networks of associate designers on a regular basis. STBY call this 'networked collaboration', and their REACH Network (a global design research network) is a prime example of this collaboration in action – allowing small local design companies to retain their lean approaches while participating in complex international projects. The REACH network (consisting of eleven partners located around the world) was created to address the needs of clients interested in finding a balance between a general global service offering, and bespoke customised offerings for specific contexts. The power of networks is also evident in the number of communities built and driven by the DesignThinkers Group. Bringing people together and building communities is a key enabler of the DesignThinkers Group innovation facilitation role and they do this in a number of ways: through the DesignThinking network; Designers DNA; StartUpLab; and the DesignThinkers Academy. DesignThinking network is an open network of professionals engaging with Design Thinking, while DesignersDNA is a closed platform to help clients from large organisations build partnerships with each other and co-develop services.

Transition 3: Diversifying Business Models

This transition connects with the first transition of expanding roles, specifically relating to the entrepreneurial role of the designer. While the attribute of being entrepreneurial is often discussed about in the context of an individual, the diversification of business models can be more closely linked to organisational transition. A majority of the design organisations interviewed for this research started as a consultancy, where design expertise was offered to meet the needs of the client. Almost all of these organisations have since diversified into a range of different business formats designed to better respond to their particular clients' needs and external environmental demands. As we moved from an industrial to post-industrial age, the relationship between design and industry also changed, and this is manifested in how designers are changing their modes of operation.

In the social space, FutureGov have transitioned their business model "away from change consultancy [and towards] a wholehearted commitment to using consultancy to generate ideas for products that can transform the sector at scale". Their work on the *Patchwork* project and the *Cassorole Club* have been self-initiated and self-sustaining, where the traditional 'client' and 'designer' relationship does not pertain. Instead, they applied a more entrepreneurial approach, and sought initial partners and funding to build a credible prototype before approaching councils to trial the system. Similiarly, thinkpublic have taken the initiative and launched social enterprises such as *Relative Friends* and the *After Work Club* to tackle the growing challenge of social isolation. All of these design practices have identified, and then responded to, unmet needs in the marketplace and in society.

A discernable change to design's traditional business model is that increasing number of design companies are now launching their own products and services into the marketplace. Optimal Usability created a spin off company, Optimal Workshop, to act as a product development company which licenses research tools that have been developed in-house to organisations. Increasingly, design practices are developing their own internal R&D departments in order to experiment and test out new ideas. At BERG, Droog, Superflux and User Studio these are distinct areas of the business where their designers can pursue personal projects, developing new product and service ideas while allowing individuals to drive creativity, expand their own horizons and push business boundaries. At PHUNK, commercial and personal work have run side by side since the company was founded, with a simultaneous focus on creating new revenue streams for the practice while maintaining a strong personal voice in their work. However, it is the work emerging from BERG's own R&D work that has resulted in perhaps one of the most extreme transition emerging from our practices thus far. BERG is a well-respected and globally known design company best known for their work with companies like the BBC, Google and Intel. In parallel with their consultancy work they have also been developing their own product, *Little Printer*, a web-connected printer which enables people to use their mobile phone to configure the type of online information that they wish to receive and print (for example tweets, news, calendar notifications). The *BERG Cloud* platform was created to support the use of *Little Printer* and is designed to function as an operating system for connected products. As a result of its popularity and the huge interest in the product, BERG announced in October 2013 that it is repositioning itself, moving away from a digital product design company in an agency/client model, to a product-based start-up with the launch of their *BERG Cloud* platform to the wider public.

The diversification of design business models has demonstrated designers' abilities to respond to external forces as well as to embrace the opportunities offered by networked technologies and the increasing affordability of manufacturing processes. BERG's example illustrates the move from a design consultancy, to abandoning this model altogether to concentrate on being a product-focused technology start-up. While this is an extreme example, the general trend indicates that designers are

moving away from acting solely as consultants, to also acting as entrepreneurs, partners and collaborators. This diversification provides designers with fresh opportunities to engage in long-term change projects, while increasing their flexibility and giving them the freedom to explore new business areas in challenging economic times.

Transition 4: Externalising Approaches and Demonstrating Value

As design moves from styling, to process, to strategy roles (Danish Design Centre, 2003) it has become ever more important to make explicit the value of design, to isolate and evidence the field's distinctive impact. Many of the practices interviewed for this research discussed changing their approaches in order to demonstrate the value of the design process as quickly as possible. BERG, Fjord and thinkpublic all discussed about an increasing demand from clients for an earlier engagement in prototyping. This has enabled designers and their clients to start "trying things out rather than imagining" (Fjord), and to "find out as fast as possible what works, what does not" (BERG). Despite an increasingly widespread understanding that design can add significant value to organisations of numerous types, design is still a hard sell in many of the emerging markets, as confirmed by the experiences of INSITUM, Idiom, frog Asia, designaffairs Shanghai and live|work Brazil. These practices have all had to work hard at educating their clients on the value design can bring, and its role in innovating products, services and systems. Most of the 'educational' activities take the form of co-creation workshops to enable clients to experience first hand how design works. Frog Asia reflects on why they prefer to work this way:

We prefer to be working closely with our clients, not only to ensure that we are working from the same page but also because our clients like to roll up their sleeves and get their hands dirty. They want to learn how we do what we do… as we are not a university we do not teach them in the usual way; instead we transfer our knowledge by working with them.

Practices also recognised that without initially building up the trust and understanding of what a design approach can offer, it would be difficult to progress to larger more strategic projects. Here INSITUM talk about the need to educate as a way of building client relationships.

In emerging markets we have to carry out a lot of educational activities with our clients. Companies are used to market research, but they are not familiar with innovation consulting. As we work with them, we help to develop their teams and make them more sensitive to innovation and Design Thinking approaches.

Conclusion

Having identified and discussed the four key transitions that are evident in a diverse and broad range of design practices, we conclude by briefly discussing how these transitions will impact on the practice of service design from three perspectives: designer, design educators and organisations. A significant challenge faced by today's service designer is the need to communicate to external audiences the full range of their skillset, beyond the more obvious and tangible craft skills. This is especially important since the design of services involves (rightly or wrongly) the design of human behaviour in an explicit manner. The designer's ability to empathise, visualise, synthesise and bring about resolution are the skills that are driving their transition into new and expanded roles. These skills also influence the way they collaborate with their users, partners and peers, and are particularly important in light of the new opportunities being presented for designers to build design capability within organisations. This leads to the question of whether designers have the leadership skills required to facilitate change in an organisation. Only a rare few designers have demonstrated the capability to take on this role (a prominent example is of course, Jonathan Ive at

Apple) but for the majority of designers, this requirement would be a huge challenge to their current practice. It is also important to note that while the designers interviewed have at some point taken on a new role, it was often done so subconsciously and out of necessity. In a majority of the cases, these roles are merely a by-product of what they set out to achieve. It is important that service designers learn to recognise the situations that require them to take on a particular role.

For design educators, the time has come to move beyond the educational models previously defined by the industrial revolution. In a post-industrial era educators must balance the nurturing of core skills such as sketching, and visualisation, with the development of new softer skills and traits such as facilitation, collaboration and empathy, especially important in the management of stakeholder involvement in complex projects. Students need to be able to identify the value they have to offer as service designers, and also the value they have to gain through interacting with other disciplines. The challenge for educators is to work out what to include in (and exclude from) the curriculum in order to equip their students to act effectively as managers, facilitators, educators, entrepreneurs and communicators. The disciplinary silos that continue to exist within education – while important to the development of the student's identity as a designer – may also prove a hindrance in an age of multi-disciplinary team-working.

And finally, for organisations looking to embed service design in their practice, the challenge is to adapt design's toolkit and methods to ensure relevance to their needs. Companies like Novabase have shown that simply applying a prescribed process or method will not work; rather a process of translation and adaptation is required, in order to make those methods relevant to the given context. Design leadership will also be key, since the successes seen in our five non-design case studies all rest on the work of strong individuals and teams championing the value of design in a transparent and simple manner, with the support of senior management. These insights echo Bailey's (2012) findings that maintaining management support is crucial to how effectively design thinking and practices are disseminated across the organisation.

This research has wide implications for design as a whole but in this paper we have tried to highlight ones that are of particular relevance to Service Design. It is important to note that these insights are derived from observations taken at a specific moment in time in a fast evolving discipline. As we conclude this paper, we are already beginning to observe further transitions on the horizon waiting to be explored.

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