

Emerging Trends of Design Policy in the UK

Qian Sun

Royal College of Art

E-mail: Qian.sun@rca.ac.uk

Abstract: This paper reviews design policy in the UK. As the UK does not currently have any written and acknowledged statement of cross-governmental design strategy, this article investigates the key organisations involved in developing and delivering policies that impact on design in the UK by reviewing their missions and strategies, thereby identifying opportunities, challenges and trends in British design policy.

Keywords: Design Policy, Design Industry, UK, Innovation

1. Introduction

Following the Second World War, many countries – including Great Britain, Germany, South Korea, and more recently Taiwan, Brazil, Finland, and China – have developed their own national design policies and design promotional organizations. The proliferation of national design promotion bodies has changed the landscape of design agendas at national, international and organizational levels. This dynamic, at least to some extent, also implies that national design policies have started to become popular across the world (Woodham, 2010).

In these countries, design is considered as an important tool for achieving their competitive advantages. Therefore, governments actively seek to create an encouraging environment so that design may prosper. The need to develop national design policies is based on the rationale that a lack of understanding of how design adds value at both organisational and national levels requires government intervention to inform citizens, companies and public organisations about the benefits that design can offer and how to take full advantage of the latter (Raulik-Murphy et al., 2010). In some countries, government intervention has resulted in exceptionally positive outcomes. For example, the Korean government's manifesto in 1988, which placed design at the centre of the national strategy, has been instrumental in the rise of Samsung and LG, while also boosting the national economy; meanwhile

Denmark's position as a creative country in the international market has been supported by an official government resolution passed in 2007. More recently, while China aims to transform its economy away from a reliance on low-skill and resource-intensive manufacturing, and via the accelerated formation of human capital and increased investment in science, technology and innovation, the central government has recognised the urgency of design innovation in terms of this transformation and has placed the highest priority on promoting and supporting design as shown in its 12th five-year-plan.

2. The Subject: Design Policy

Design policy, a concept that has emerged in the recent academic literature, appeared as early as 1985 when the 'Design and Innovation: Policy and Management' conference was held at the Royal College of Art, London. At the conference, Aubert's paper 'A Review of Design Innovation Systems in the UK: The essentiality of design policy' (1985) explicitly used the term to describe the systems and related policies that nourish design and innovation in the UK. The paper did not distinguish between design and innovation; as such, innovation policy and design policy were seen as interchangeable. In his contribution, the effort required to develop policies for technology innovation was used as a reference point. Aubert considered that innovation systems and related policies should fulfil the following three key functions: means of development; the establishment of an appropriate institutional and regulatory framework for innovators; and helping to formulate focal points or clear targets in order to structure technological efforts at a national level. Since then, design policy has become a distinct concept that concerns design professionals, the government and wider industries and societies. DeEP (2013) has defined design policy as the 'sets of rules, activities, and processes to support design through the reinforcement of design capabilities at all levels of the policy cycle' (p.4), while Murphy (2014) has characterised it as 'The process by which governments translate their political vision into programmes and actions in order to develop national design resources and encourage their effective use in the country' (p.11).

In the design policy literature, the most frequently debated questions are concerned with: (1) why governments should promote design; and (2) how governments best promote design (Swann, 2010). In relation to the first question, the issue has been why the design sector should receive preferential treatment over other sectors, just as Woodham (2010) has critically remarked that design policy emphasises the priorities of the design profession rather than those of society as a whole. Sun's (2010, 2011b) design policy model conceptualises the dynamics between key stakeholders in a knowledge supply chain, and she underlines that those policies stressing the design sector as the key beneficiary (e.g. through subsidising design) would lead to a long term imbalance between design supply and demand, and further cultivate the design sector's dependence on government subsidies, thereby placing the sector in a vulnerable position and subject to political changes. This in turn would mislead the design sector into developing certain capacities in order to meet the needs of this non-sustainable demand.

This aligns with a widely-shared view amongst political theorists (Lundvall, 2007, 2010) who have initiated a shift in the justification for policy intervention in favour of innovation away from neo-classical market failure theory, thereby embracing a broader systems failure theory. Design policy literature, e.g. Love (2007) and Swann (2010), also examines the rationale of design policy in terms of addressing 'systems failure' which seeks to identify failures or weaknesses in a particular innovation system, and corrects these via policy interventions. Swann's report to the Department for Business Innovation and Skills (2010), was aimed at 'reviewing the market failure and other, cogent, rationales for a national design promotion policy and its scope of applicability, with some reference to the purpose and roles for a national design policy body' (p.1), and concludes that there are many areas of design activity (e.g. creating national design assets, design for complex systems and standards for design, and strengthening the design profession) that are eminently worthy of support from public funding.

Given that government intervention is needed in tackling system failures, the second question, namely, how government intervenes, has wider practical implications. The recent literature has observed a paradigm shift. For example, Amir (2004) has proposed transforming an industrially-oriented design policy into a human-centred design policy that takes into account the transformation of orientation, the users, and the initiators of design policy. This proposal is based on the premise that social and economic problems cannot be solved solely through the materiality of design, but a structural solution that involves political factors in its implementation is required. Similarly, Raulik-Murphy et al. (2010) suggest that the current most important shift is the integration of design policy into cross-disciplinary policies for innovation and sustainability involving social innovation rather than focusing solely on economic competitiveness while also moving towards a holistic approach addressing systemic failures rather than market failures. Along with this shift, scholars – e.g. Love (2007), Whicher et al. (2012), Raulik-Murphy et al. (2009), and Swann (2010) – have developed a range of models to indicate the form of policy intervention needed. Taking the model as a benchmark, Whicher et al. (2012) through the SEE (Sharing Experience Europe) platform have produced a number of reports profiling design policies in SEE network countries.

However, it is arguable that if a systemic approach to design policy is the backbone, it is important to have a good understanding of the system prior to the identification and formation of policy interventions. There is a need for more research in this area of design policy in order to understand the scope of design promotion, to identify references, to question current practice and to develop new thinking that will help to advance the field (Raulik-Murphy, 2014). Meanwhile, it is also important to improve our knowledge of the systems where design policy is situated. This paper aims to contribute to the discussion by improving our understanding of the political context of design policy in the UK from a system perspective. In particular, this article attempts to understand who are the 'policy makers' in this context, what their political agendas are, and how they intervene in terms of the development and delivery of design policies.

3. The Context: Design Policy in the UK and The Design Council

In the UK, design is considered an important and integral dimension of innovation policy (Hobday et al., 2012). The UK's move from an industrial to a knowledge-based economy (evidenced by a fall in its share of manufacturing output and a shift towards higher-skilled professions) has reinforced the importance of innovation and value-added design.

Historically, the British government was the first government in the world that recognised the power of design.

The Design Council and its work over the past 70 years has played an important role in implementing the political vision of the UK government (the Council celebrated its 70th anniversary in 2015), and it has since pioneered a wide variety of approaches to create environments conducive to design, including design education, infrastructure, funding and IP exploitation. One of the most influential Design Council documents has been *The Cox Review of Creativity in Business: Building on the UK's strengths* (2005), which investigates the contribution of design, innovation and creativity to the UK economy. It is considered the fundamental document that set out the agenda for UK design policy. In the report, Cox made a range of recommendations to central and regional government, businesses, broadcasters and educational institutions. These include: raising awareness and the profile of creativity; targeted support and incentive schemes; building capacity in higher education; and utilising the power of public procurement to encourage innovation. Following the review, a number of projects and programmes have been initiated in line with its recommendations, including, for example, 'Designing Demand' which was launched in 2006 to support SEMs' use of design; the Arts and Humanities Research Council and Engineering and Physical Sciences Research Council's £6.5 million investment in creating the 'Designing for the 21st Century Initiative' as a vehicle for supporting design research over a five-year period from 2005–2009; the Design Council's Blueprint and Higher Skills/Higher Value review focusing on skills development; UKTI's Strategy for Design Consultants on global promotion; and its 'Science and Innovation Investment Framework 2004–2014'. As a result of the review, the Design Council also initiated pioneering new thinking about design-led solutions to social as well as economic problems, such as the initiation of the Designs of the Time project (Dott), the development of RED (an in-house research and development interdisciplinary team), and the launch of its 'Design Challenges' open competitions.

Although partly as a result of the 'austerity' measures introduced following the credit crunch in 2007, the Design Council was reconstituted as a charity and merged with The Commission for Architecture and the Built Environment (CABE), while the vision and agenda set by the Cox Review is still fundamental to contemporary British design policy as reflected in the recent reports by the Design Commission: *Restart Britain 2* (2014a), *Design and Public Procurement* (2010), and *Design Research and Public Policy* (2014b), all of which suggest pushing for much stronger design leadership in central government through increased design and commissioning capacity.

As remarked by Woodham (1995), in historical, national and international terms the Design Council was by far the most significant state organisation concerned with the promotion of design in industry. With the changing role of the Design Council in UK design policy, the leadership role that the Council used to perform has, seemingly, been distributed to various different organisations. As the UK does not currently have a written down and acknowledged statement of cross-governmental design strategy, this study aims to understand the landscape of UK design policy and its opportunities, challenges and trends by investigating the political system.

4. The Approach: Systemic Approaches and Stakeholder Analysis

This paper argues that government interventions should aim to address systemic failures rather than market failures. Therefore, a holistic approach to understanding the system of design policy is adopted here. Lundvall (2010) believes that it is crucial to understand the specific systemic context in which a government intervenes, otherwise government policies might either reproduce systemic weaknesses or introduce mechanisms incompatible with the basic logic of the system. In particular, Swann (2010) suggests that 'the systemic approach is based on a much richer interactive model where there are many channels from invention to wealth creation and many feedback channels too, and moreover where a wide variety of institutions, actors and intermediaries play an essential role' (p.15). A range of tools are relevant to the analysis, including, for example, Porter's Five-Forces model (Porter, 1998), the Triple Helix (Etzkowitz 1993), the National System of Innovation (Lundvall, 2010, Lundvall, 2007), and stakeholder analysis (Brugha and Varvasovszky, 2000).

This study combines these tools with a particular focus on stakeholder analysis which has strong roots in the policy sciences. Stakeholder analysis was developed as a tool or set of tools to map stakeholder power, interest and influence around a policy issue. In turn it was also concerned with where the distribution of power and the role of interest groups in the decision-making and policy process was located. In this context, stakeholder analysis widens and shifts the attention of policy analysts away from a rational policy-making model and towards system-wide dynamics with multiple actors who try to influence policy by utilising multiple resources and venues (Varvasovszky and Brugha, 2000). The increasing popularity of stakeholder analysis reflects a recognition of the central role of stakeholders (individuals, groups and organizations) and the structure of power in decision making (Brugha and Varvasovszky, 2000).

Instead of developing an overall stakeholder map to include individuals and policy beneficiaries, this study focuses on the political context of design policy in the UK. As the UK does not currently have any acknowledged statement of cross-governmental design strategy, this study looks at how key organisations and their missions and strategies are involved in developing and delivering policies that have substantial impact on design in the UK as well as examining key documents that mark certain milestones in the country's design

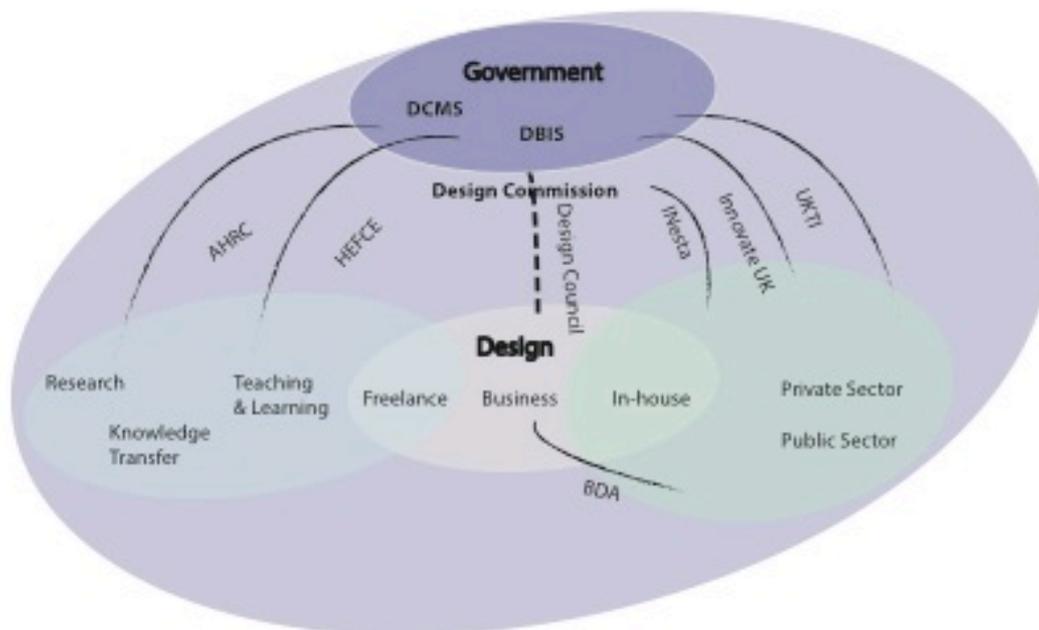
policy evolution. Based on a stakeholder analysis, it then discusses the trends, opportunities and challenges faced by the UK design industry and its policy makers.

The study started by identifying key organisations considered important in shaping and delivering design policy in the UK, based on reviewing their websites and relevant documents (including publicity, reports, and academic literature) in order to understand their missions, strategies, policies and actions in relation to design.

4.1 An Analysis Framework

These key organisations are then mapped in a Triple Helix innovation map where three key stakeholder groups are identifiable: the government, Higher Education Institutions (HEIs), and industry, as shown in Diagram 1. On the right-hand side of the diagram is industry. Here, industry comprises two key players in a knowledge supply chain: design supply and design demand, following Porter's Five-Forces model. The supply can be considered as all forms of design capacity, from freelance designers to design consultancies and in-house teams; and demand as constituting all design clients in both the private and public sectors. On the left-hand side are HEIs, where research, teaching and learning, and knowledge transfer as three key pillars of academic activities.

Diagram 1



In the UK, a number of public sector bodies are involved in promoting and developing design. The key governance departments relevant to design are: DBIS (the Department for Business, Innovation and Skills) and DCMS (the Department for Culture, Media and Sport). Other agencies include UKTI (UK Trade and Investment), NESTA, Innovate UK, AHRC (The Arts and Humanities Research Council), HEFCE (The Higher Education Funding Council for

England), and the Design Commission. There are also trade associations and professional bodies, e.g. DBA (Design Business Association), D&AD (Global Association for Creative Advertising and Design), and the Chartered Society of Designers, all of whom play key roles in the promotion of design in the UK. The organisations identified in this article are consistent with Swann's list (2010). Although this is not an inclusive list of relevant organisations, it is representative of the landscape of UK design policy.

The organisations that are considered relevant in informing and delivering design policy are mapped onto the diagram to see how they influence the formulation of design policy and to ascertain what impact their policies have on the landscape of the design industry. As illustrated in the diagram, these organisations have their own particular strategic foci placing them closer to some stakeholder groups within their areas of interest than others.

At the top of the diagram are the two departments (DBIS and DCMS) representing the UK government. In the UK, design is classified as one of the 13 sectors composing the Creative Industries in the UK; whilst design seems to be more closely linked with business and innovation, and thus is more connected with DBIS – a ministerial department responsible for the UK's economic growth. For DBIS, design is considered as part of the innovation infrastructure (together with IP rights), and also 'a key UK strength with a vital role and driving business revenue'; whilst 'there are parts of the economy where design awareness remains low, including amongst SMEs, and scientists seeking to commercialise new ideas' (DBIS, 2014).

On the right-hand side of the diagram is the design client, namely the wider industries that use design either through developing in-house capacity or commissioning. They can be from either the private or public sectors. We see that UKTI, Innovate UK and Nesta are amongst the most important organisations that influence how design is applied to innovation in wider industries. Innovate UK aims to 'fund, support and connect innovative businesses to accelerate sustainable economic growth'. In its report *Creative Industries Strategy* (TSB, 2013), Innovate UK underlines that its support in design aims to: '(1) continue to encourage the use of design earlier in the R&D process; (2) build up a body of evidence and success stories in collaboration with the research councils and other bodies to demonstrate the value of the early use of design in the innovation process; and (3) support UK business innovation by building a community of designers and technology innovators to engage with "design in innovation" activities' (p.11). UKTI, responsible for international trade and investment, considers design as a major and growing contributor to the UK economy and overseas market (UKTI, 2009); therefore UKTI focuses on helping designers discover new markets overseas (Runcie, 2015). Nesta is an independent charity sponsored by the Nesta Trust (transferred through the National Lottery endowment) which has a Protector appointed by Government. Nesta considers that design has always had a significant role in innovation as it can 'help to better understand people's lives, to generate and visualise new ideas, and to test ideas in practice through a rapid process of trial and error' (website). Nesta

has been a major source of original and influential research and policy work in the field of innovation.

In the centre of the diagram is the design sector comprised of design businesses, freelance designers, and in-house design teams. The latter two overlap with HEIs and client sectors, as indicated in the diagram. The Design Council used to be the sole organisation linking the design sector with the government. When it was established, the government had a very clear vision of design in terms of economic recovery (in particular industrial design), and the Council was positioned to achieve this mission. Alongside the restructuring of the Design Council early on in this decade, the Design Commission was established in 2010 by the Associate Parliamentary Design and Innovation Group, to promote intelligent debate on design policy. It is endorsed by 13 government departments and composed of parliamentarians and leading representatives from business, industry and the public sector (Design Commission, 2015). It produces research papers and reports on important issues in relation to design. Within the sector there are a range of trade organisations, for example, the DBA, a trade association promoting design in the UK with a mission to 'promote professional excellence through productive partnerships between commerce and the design industry [in order] to champion effective design which improves the quality of people's lives'. It is a membership organisation offering support to its affiliates, the majority of whom are design consultancies and freelance designers.

The third area key to the design landscape is HEIs which supply the industry with skills and capabilities in design through teaching and learning, knowledge transfer and research activities. This is located at the right-hand side of the diagram. The AHRC and HEFCE are the two key organisations that link this sector with the government. Both are sponsored by DBIS. For the AHRC, design has been identified in its 2011-2015 delivery plan (AHRC, 2011) as one of the strategic priority areas (alongside language and heritage), and reiterated in its 'Strategy 2013-2018' (AHRC, 2013). In contrast, the HEFCE (the organisation that funds and regulates universities and colleges in England) has a strong focus on science, technology, engineering and mathematics (STEM) (DBIS, 2010). Design, along with other humanities subjects, has been affected by the government's reform of higher education finance (Business Innovation and Skills Committee, 2011). As described by Loveys (2011), the least popular non-academic courses – 'soft subjects' that offer poor employment prospects – have had to close down.

Based on the findings of the analysis, this study reveals a range of trends, opportunities and challenges for UK design policy.

5. Discussion: Trends, Opportunities and Challenges

5.1 The importance of leadership in championing design nationwide

The analysis reveals that the government and its intervention play a significant role in shaping the dynamic of the design landscape in the UK. The Design Council is viewed,

especially in its early years, to have significantly altered how design is perceived nationwide, and has proved the value of design in boosting the economy and improving the quality of consumers' lives. The UK currently enjoys a prestigious reputation internationally for its creativity and ability to innovate. The recent agenda in promoting design in public innovation has also started to show its impact – we have seen more and more projects set up to use design in developing and delivering policies and services in the public sector. This will definitely lead design into a new area that will probably change the 'professionalism' of design and further the industry dynamic. Although the approach is still aligned with the historical development of design-oriented policies (which can be characterised by a movement from Europe and the US to the rest of the world, and from there up the "design ladder" (Bitard and Basset, 2008)), these examples imply the importance of leadership in championing design nationally.

However, the nature of the Design Council has changed and it generates most of its funds through its advisory services. Its activities are increasingly involved in, for example, bidding for research funding and pitching for design projects (especially from the public sector). Although it still has influence over the UK's political agenda in partnership with other organisations such as the Design Commission and Innovate UK, its role in policy has changed significantly. As a result, it is unclear what the leadership of design will be like in the UK and the potential impact on UK design in the future.

5.2 Moving away from a 'design-centric' model

For the same reason that the government's intervention is so powerful, how design policies are put forward and delivered is crucial. Many of the design policy proposals have been criticised for an exclusive emphasis on design professionals instead of on wider social and economic development. Over the past decades, the design sector in the UK seems to have expanded significantly. This leads us to questions as to, first, how design leadership should be positioned in relation to other stakeholders and, secondly, how government should best support the use of design in wider industries.

The UK currently has the largest design sector in Europe. As discussed by Cooper et al. (2009), the design sector in the UK was a typical example of a saturated market where the supply of design services was significantly surplus to demand. The UK's design industry was characterised as made up of: a majority of small consultancies (with less than five employees), a majority of whom work as freelancers; short lifespan of design businesses; a wide span of design services; and incredibly low entry barriers. On the other hand, Art and Design is the sixth largest educational subject with a total of 172,860 students registered on these courses in 2012-13. As Sun (2011a) states, a majority of design graduates often find it difficult to start their careers and take longer to establish themselves compared to students from other disciplines. They normally have complex career paths, managing several jobs in different fields, often simultaneously, with a trend for graduates to move towards self-employment as their careers progress. They show high transfer rates to other disciplines

(especially retail, marketing and advertising), and are more likely to work in a broad range of jobs. This partially explains why art and design-related subjects in particular lead to enterprise pathways (PACEC, 2015).

The continuous cuts to HEIs' funding (£150 million for 2014-15 and 2015-16) (Morgan, 2015) will unavoidably lead to a downsizing of the design sector in terms of student numbers. This, together with the withdrawal of financial support from the Design Council, to some extent indicates that the UK government has reflected on the previous model of delivery. As the then Rt Hon Gordon Brown MP, Chancellor of the Exchequer was quoted as saying, '... our challenge is not just to encourage creative industries, our priority is to encourage all industries to be creative...' (DTI, 2005, p.44). To avoid developing 'design-centric' policies and programmes, it is important to acknowledge the supporting role of design in the wider economy. This allows the intention of any proposals to shift from 'design professions' to wider beneficiaries. As Swann (2010) suggests, design policy should use less intervention into market failures, as discussed earlier in this article, but needs instead to focus on those areas that are eminently worthy of support from public funding, such as creating national design assets, design used for complex systems and standards for design, and strengthening the design profession. As such, the mission of promoting design has been distributed into various public agencies, e.g. Innovate UK, UKTI, ESRC, instead of through the Design Council. Given that the strategic agenda of these organisations is to support DBIS, and hence economic development in the UK in general, the way design is positioned in relation to their strategic priorities (e.g. innovation, research and international trade) is essential in establishing the integrity of design in this space.

In this manner, design policies are not just those policies and programmes directly referring to or benefiting design, but also encompass those issues that influence the dynamic of the design sector through intervening in the system that design is part of. Thus, design policy concerns all policies shaping how design is perceived and engaged with at a national level.

5.3 A stronger need to integrate design with innovation policy

With the shift away from the 'design-centric' approach, there is a need to integrate design into wider innovation systems. Therefore, the link between design and innovation is essential in this process (MacGregor et al., 2007). In the Cox Review (2005), innovation is defined as 'the successful exploitation of new ideas' and design as 'what links creativity and innovation that shapes ideas to become practical and attractive propositions for users or customers and may be described as creativity deployed to a specific end' (p.2). This view is widely shared in the literature, including Green et al. (2013) and Bitard and Basset (2008). Cunningham's (2009) view has added a new dimension – namely the 'user' – and he sees design as the link between technology, creativity and the user, and thus an important tool to increase the scope of innovation. Similarly, both Innovate UK and Nesta consider the 'people-centred' approach as a key element in that design contributes to innovation practice. Innovate UK views design as 'a way of thinking, that brings a people-centred

approach to technology-based innovation which uses proven and replicable methods for solving problems and discovering new opportunities through creative enquiry' (Innovate UK, 2015); thus design can be a key differentiator for businesses, effecting the desirability, usability and feasibility of systems, services and products. Nesta considers that design has always had a significant role in innovation, as it 'helps to better understand people's lives, to generate and visualise new ideas, and to test ideas in practice through a rapid process of trial and error'. The UKTI's view (DTI, 2005) emphasises the links between creativity and competitiveness and highlights the importance of creativity for increased business performance. Given all these perspectives, in many countries design policies are put forward as part of wider innovation policies.

However, innovation policy makers and analysts have traditionally paid little attention to design; as suggested by Hobday et al. (2012) 'design has either been absent or a poor second cousin within the broader field of innovation policy which tends to privilege research and development (R&D).' On the other hand, from outside of the design sector, the problem is that the sector itself is difficult to reach. For example, DBIS (2014) suggests that the reason for the low awareness of design especially amongst SMEs and scientists may be because 'the UK design sector is difficult to navigate'; The Big Innovation Centre (2012) also considers that despite the importance of design to innovation, 'the nature of design-intensive industries – the businesses that practice and sell design – is remarkably hard to pin down' (p.1). Because of this ambiguity and uncertainty, it is challenging for the government to develop clear and consistent policies to support design.

5.4 A substantially growing interest in design for social and public challenges

Along with the need to integrate design in innovation, design for social and public challenges has been a substantially growing interest in the UK. The Cox Review (Cox, 2005) has recommended (among other things) 'utilising the power of public procurement to encourage innovation'. Following this, the Design Commission has produced a range of reports promoting the use of design in the public sector, for example, *Design and Public Procurement* (2010) and *Restarting Britain: Design and Public Services* (2014a). The later publication looks into design's role in public service renewal. The report showcases examples of 'good design thinking being applied, with positive results, to public or governmental challenges – often involved in reconfiguring public services in places where resources are diminishing, or need is growing, or both' (p.1). The report suggests ways of 'normalising design practice in public sector'. The recommendations included pushing for much stronger design leadership in central government; increasing design capacity (and commissioning further capacity) across government through training, aggregating good quality information, and building capacity in the design sector itself to respond to social and public challenges. In particular, it recommends that the Cabinet Office take responsibility for developing design capacity across government, specifically trialling a multi-disciplinary design studio method for originating policy, and calls for a wider drive to equip policy-makers with design skills. As a result of this report, the UK's first Policy Lab was launched at

the beginning of April 2014. The Policy Lab is the first its kind in the UK and works with policy teams to test how design principles and methods can improve the 'pace, quality and deliverability of policy in the Civil Service' (Design Council, 2014). Similarly, local government appears more aware of the use of design in developing public services. Although it is too early to predict any increase in demand for design from the public sector over a longer term, what is certain is that this new development opens its door to design being used meant the area of public services, which will significantly change the dynamic of the design sector and its level of professionalism.

5.5 A need for an evidence-based approach to inform policy

For the same reason, the urgent need to develop a clear evidence base to support design is widely shared. Whicher et al.'s (2012) report has identified a gap regarding 'what data would best inform design policy-making and what is currently available and therefore attempts to encourage policy-makers to collect data on design, analyse their design systems, conduct a needs analysis of the sector and industry's use of design, identify the barriers to the better use of design and develop policies and programmes that tackle the deficiencies' (p.17). Following the Hargreaves Review (Hargreaves, 2011), which has recommended that more research is needed to develop a clear evidence base for improving the intellectual property system in terms of design, the Big Innovation Centre (2012) has developed a report forming part of the evidence base to examine how UK design figures in the global economy, and considers how the intellectual property system can best support its growth. Similarly, the Design Council's new research *The Design Economy* assesses the contribution of design to the UK economy using a set of key measures, including gross value added, productivity, turnover, employment and exports of goods and services. The report shows that design contributes £71.7 billion to the UK economy (7.7% of GVA) and design as a discipline benefits and cuts across the whole UK economy, rather than a single industry (TBR, 2015). Putting the validity issue to one side, it could be argued that design has moved into new territories such as social innovation, which will generate a more tangible impact on society and the environment, as well as on the economy. In this sense, design's economic value on its own probably has limited worth in terms of evidencing the value of design. A need to shift from evidencing economic benefits and to concentrate attention on the impact of design on wider societal and environmental issues is necessary.

6. Conclusion

This paper investigates the political context of design policy in the UK. By mapping key organisations – including administrative departments, public organisations, and trade associations that influence the development and delivery of design policy – onto the national innovation system, the paper has identified five trends that have emerged in the design policy landscape. They are:

- The importance of leadership in championing design nationwide

- Moving away from a 'design-centric' model
- A stronger need to integrate design with innovation policy
- A substantial and growing interest in design for social and public challenges
- A need for an evidence-based approach to inform policy

The analysis provides an updated review of the landscape of design policy in the UK. By mapping relevant organisations onto the national innovation landscape, the analysis has contextualised the practice of design policy in the UK and revealed a range of trends. It demonstrates the complexity and dynamics in the system where design policy is situated.

Each of these trends also implies a distinct area of research in design policy. Given that design policy is an important yet emerging field in the design research literature, this encourages the research community to explore gaps in our knowledge.

It is recognised that the trends identified in the analysis are unique to the UK context. Because design policy is a highly contextual concept, it cannot be considered in isolation from economic, social, cultural and political conditions. It is suggested that future studies investigate the extent to which these trends are shared with other countries; what trends might be identified in other countries; and how differences related to individual conditions can be ascertained. These questions are important to evidence the essentiality of government intervention in terms of unpacking the relationship between how design is applied and promoted at a national level and its conditions.

Acknowledgements: This work was supported by the Arts and Humanities Research Council [AH/L015676/1].

7. References

- AHRC (2011) Arts & Humanities Research Council: 2011-2015 delivery plan In: AHRC (ed.). London: AHRC.
- AHRC (2013) Arts & Humanities Research Council: Annual Report & Accounts 2013-14. In: AHRC (ed.). London: AHRC.
- AMIR, S. (2004) Rethinking Design Policy in the Third World. *Design Issues*, 20, 68-75.
- AUBERT, J.-E. (1985) The Approach of Design and Concepts of Innovation Policy. In: LANGDON, R. & ROTHWELL, R. (eds.) *Design and Innovation: Policy and Management*. London: Frances Pinter.
- BITARD, P. & BASSET, J. (2008) Mini Study 05 – Design as a tool for Innovation: A Project for DG Enterprise and Industry. *Global Review of Innovation Intelligence and Policy Studies*. Manchester: Pro Inno Europe: Inno-Grips.
- BRUGHA, R. & VARVASOVSKY, Z. (2000) Stakeholder analysis: a review. *Health policy and planning*, 15, 239-246.
- BUSINESS INNOVATION AND SKILLS COMMITTEE (2011) Government reform of Higher Education Twelfth Report of Session 2010–12 House of Commons.
- COOPER, R., WILLIAMS, A., EVANS, M. & SUN, Q. (2009) *Design 2020 - The Future of the UK Design Industry*. Salford: Lancaster University and the University of Salford.

- COX, G. (2005) Cox Review of Creativity in Business: building on the UK's strengths. 2005 pre-Budget Report. the Chancellor of the Exchequer, .
- Cunningham, P. (2009) National and regional policies for design, creativity and user-driven innovation. Thematic Report. Manchester: Manchester Institute of Innovation Research, University of Manchester.
- DBIS (2010) 2010 to 2015 government policy: public understanding of science and engineering. In: DBIS (ed.). London: Department for Business Innovation & Skills.
- DBIS (2014) Innovation Report 2014: Innovation, Research and Growth. In: DBIS (ed.). London: Department for Business Innovation & Skills.
- DESIGN COMMISSION (2010) Design and the Public Good: Creativity vs the Procurement Process? London: Associate Parliamentary Design & Innovation Group and Design Business Association.
- DESIGN COMMISSION (2014a) Design and Public Services: Meeting Needs Saving Money Humanising Services Engaging Citizens. Restarting Britain London: Design Commission.
- DESIGN COMMISSION (2014b) Design Research and Public Policy: Current practice working to intersect with government. APDIG Term Paper London: All-Party parliamentary: Design & Innovation Group.
- DESIGN COMMISSION. (2015) About the Design Commission [Online]. Available: <http://www.policyconnect.org.uk/apdig/about> [Accessed 10 March 2016].
- DESIGN COUNCIL. (2014) UK Cabinet Office Launches New Policy Design Lab [Online]. London: Design Council, . Available: <http://www.designcouncil.org.uk/news-opinion/uk-cabinet-office-launches-new-policy-design-lab> [Accessed 10 March 2016].
- DTI (2005) DTI Economics Paper NO.15: Creativity, Design and Business Performance. In: DTI (ed.). London: Department for Trade & Industry.
- GREEN, L., COX, D. & BITARD, P. (2013) Innovation Policy and Design—Design as a Tool for Innovation In: COX, D. & RIGBY, J. (eds.) Innovation Policy Challenges for the 21st Century. New York, London: Routledge.
- HARGREAVES, I. (2011) Digital Opportunity: A Review of Intellectual Property and Growth. In: INTELLECTUAL PROPERTY OFFICE (ed.).
- HOBDDAY, M., BODDINGTON, A. & GRANTHAM, A. (2012) Policies for design and policies for innovation: Contrasting perspectives and remaining challenges. *Technovation*, 32, 272-281.
- INNOVATE UK. (2015) Our work so far [Online]. Available: <https://www.gov.uk/government/organisations/innovate-uk/about>.
- LOVE, T. (2007) National design infrastructures: the key to design-driven socio-economic outcomes and innovative knowledge economies. IASDR.
- LOVEYS, K. (2011) Universities axe 5,000 'soft degree courses' as funding cuts sink in. Mail Online.
- LUNDEVALL, B.-Å. 2010. National systems of innovation: Toward a theory of innovation and interactive learning, Anthem Press.
- LUNDEVALL, B. Å. (2007) National innovation systems—analytical concept and development tool. *Industry and innovation*, 14, 95-119.
- MACGREGOR, S. P., ESPINACH, X. & FONTRODONA, J. (2007) Social innovation: Using design to generate business value through corporate social responsibility. International Conference on Engineering Design, Cité des Sciences et de l'Industrie, Paris, France, 2007. Citeseer.
- MAFFEI, S., ARQUILLA, V., MORTATI, M. & VILLARI, B. (2013) Embedding an evaluation approach within EU design Policies. Design Policy Issues (Design in European Policy). Milano, Italy: Politecnico di Milano, Departement of Design.

- MORGAN, J. (2015) Hefce reveals £150m cut. Times.
- PACEC (2015) Research to Assess the Nature and Annual Value of Student Start-Ups. HEFCE.
- PORTER, M. E. (1998) *Competitive strategy : techniques for analyzing industries and competitors*, New York; London, Free Press.
- RAULIK-MURPHY, G. (2014) *Make a Plan. Driving Design Strategies DUCO*. Cape Town.
- RAULIK-MURPHY, G., CAWOOD, G. & LEWIS, A. (2010) *Design Policy: An Introduction to What Matters*. *Design Management Review*, 21, 52-59.
- RAULIKEMURPHY, G., CAWOOD, G., LARSEN, P. & LEWIS, A. (2009) *A comparative analysis of strategies for design in Finland and Brazil*. Design Research Society Biennial Conference. Sheffield.
- RUNCIE, E. (2015) *Three ways UKTI can help designers discover new markets overseas* [Online]. London: Design Council. Available: <http://www.designcouncil.org.uk/news-opinion/three-ways-ukti-can-help-designers-discover-new-markets-overseas> [Accessed 10 March 2016].
- SUN, Q. (2010) *Design Industries and Policies in the UK and China: A Comparison*. dmi Review. Boston: Design Management Institute.
- SUN, Q. (2011a) *Embedding employability in the curriculum: A comparative study of employer engagement models adopted by design programmes in China and the UK*. *Journal of Chinese Entrepreneurship*, 3, 12.
- SUN, Q. (2011b) *What Policies Matter to Design*. SEE Bulletin June p.3.
- SWANN, G. M. P. (2010) *The economic rationale for a national design policy*. BIS Occasional Paper. Department for Business Innovation and Skills.
- TBR (2015) *The role and value of design: Working paper: Measuring and defining design*. London: economic research & business intelligence.
- THE BIG INNOVATION CENTRE (2012) *UK design as a global industry: International trade and intellectual property*. Intellectual Property Office.
- TSB (2013) *Creative Industries Strategy 2013-2016*. Technology Strategy Board, Driving Innovation.
- UKTI (2009) *UK Design: Creative Industries export guide*. UK Trade & Investment.
- VARVASOVSKY, Z. & BRUGHA, R. (2000) *A stakeholder analysis*. *Health policy and planning*, 15, 338-345.
- WHICHER, A., CAWOOD, G. & WLATERS, A. (2012) *Research and Practice in Design and Innovation Policy in Europe, 2012 International Design Management Research Conference*. Leading Innovation Through Design. Boston.
- WOODHAM, J. M. (1995) *Redesigning a Chapter in the History of British Design: The Design Council Archive at the University of Brighton*. *Journal of Design History*, 8, 225.
- WOODHAM, J. M. (2010) *Formulating National Design Policies in the United States: Recycling the "Emperor's New Clothes"?* *Design Issues*, 26, 27-46.

About the Author:

Qian Sun is a senior tutor in Service Design at the Royal College of Art. Her research interests include Design Management, Design Policy, Design Thinking, and Service Design. She is the Principal Investigator of the 'UK-China Design Policy Network' project funded by the AHRC.