

Design Economy 2021

Scoping Project

Public Understanding of Design

This report was commissioned by Design Council as part of the Design Economy 2021 research programme.

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1.

Introduction

A thriving design economy, delivering well-designed environments, products, services and experiences, relies on participation: people who are educated, trained, identified and practicing as designers, and people who commission, invest in, buy or support design, or use or interact with designed things. Both of these things in a foundational way rely on 'design' being valued by society. And there is indeed some evidence that design is becoming a matter of public concern; something that the public are aware of and have opinions about (RIBA, 2021). However, attempts to investigate public understanding of and attitudes towards design have been rare. Drawing on insights from studies in the more established field of 'public understanding of science', this paper offers a practical approach for a national overview as well as an in-depth qualitative analysis of the public understanding of design. The proposed methodology offers the potential for establishing a world-first baseline around the public understanding of design that can become a regular component of future Design Economy research. Furthermore, the methodology offers in-depth insights that can help direct and support future design programmes to encourage and support greater participation in design, and thereby help the design economy to flourish.

This methodological proposal tackles the complexity around notions of 'publics' and 'understanding' and offers a practical approach for a national overview, as well as an in-depth qualitative analysis of the public understanding of design. It offers:

- the potential for establishing a world-first baseline for the public understanding of design that can become a regular component of future Design Economy research;
- in-depth insights that should help direct and support future Design Council programmes to encourage more public participation in design;
- an opportunity to generate new understandings of design with members of the public as co-researchers; and
- an opportunity in itself for communicating design to the public.

2.

General approach

The approach proposed in this paper consists of three strands:

- **Understand public attitudes to design.**

The aim is to gather information about how the public understand design by investigating personal experiences with design in everyday life and what we call ‘hidden’ design skills (see below), and by exploring whether the assumption of ‘knowledge deficits’ in relation to design are justified. With regard to the last point, Richard Buchanan has suggested that there are “four orders” (Buchanan, 2001) of design: symbols, artefacts, interactions and systems. To what extent does the public recognise these different ‘orders’ of design?

- **Evaluate public communication of design.**

The aim is to gauge the impact of existing attempts to engage the public on design. This includes mainstream media coverage of specific design fields through popular mainstream TV shows such as Grand Designs, Repair Shop or Project Runway, but also extends to various ways that design is ‘communicated’ insofar as these shape public perceptions and affect the design education of young people. As identified in the Design Council’s Designing a Future Economy (2018) report, there is a pipeline problem and a need to integrate design as a key subject in the school curriculum by moving from STEM to STEAMD.

- **Identify ‘hidden’ design.** The potential of a study of the type proposed is to identify, articulate and quantify ‘hidden’ design (that is, modes of engagement with design that are not necessarily identified as such) as well as the skills involved.

Design researchers have claimed that “everyone designs” (Manzini, 2015) and that the public are actively involved in ‘making’ in their spare time, from Etsy crafting all the way to biohacking. On the other hand, many jobs involve elements of design such as creating PowerPoint presentations and designing processes. This methodology proposes to gauge the spectrum and scale of ‘hidden’ design thus understood.

Since there has been very little research on the public understanding of design, we have adapted methods and concepts from the literature in the field of public understanding of science (Smallman, 2016).

3.

Research questions

The proposed methodology focuses on the following research questions:

- RQ1.** How does the public understand design, design skills and their value?
- RQ2.** Is there a public knowledge deficit about design?
- RQ3.** What are the enablers and barriers for the public understanding of design?
- RQ4.** What are the hidden forms of design?
- RQ5.** How is design communicated, and how it should be communicated in order to encourage future designers?
- RQ6.** What might be the future public understanding of design?

3.1. Definition of design

We propose this definition is used in dialogue with research participants and adapted for surveys, workshops and case studies. It includes the Design Council's current definition emphasising head, heart and hands, and aspects of OECD's (2018) definitions, informed by Galindo-Rueda and Millot (2015, p36-45).

“We define design as a specialist set of skills that combines using head, heart and hands. Well-known versions of professional design focus on communications, products, buildings, digital interfaces and services, alongside using design skills to find new solutions to organisational or social challenges. The main applications of design skills are as a human-centred development activity, a way to link new ideas to market and user needs and an organisational capability for applied creativity and innovation.”

4.

Methods

We recommend combining two methods to offer a statistical overview via a national omnibus survey, as well as an in-depth qualitative approach via focus groups and workshops, which can be combined with blended, digital methods.

4.1. Omnibus survey

We recommend an omnibus survey to address the following research questions:

- RQ1. How does the public understand design, design skills and their value? (Overview)
- RQ2. Is there a public knowledge deficit about design?
- RQ4. What are the hidden forms of design?
- RQ6. What might be the future public understanding of design?

Omnibus surveys typically aim at a nationally representative sample of 1,000 to 2,000 adults. In the past these were done via telephone surveys, but now they are mainly online. An omnibus survey involves adding a small number of questions (typically eight) into a larger survey script involving a wide range of questions on different topics. The proposed survey approach consists of a series of questions addressing three sets of conceptual domains: Knowledge, Attitudes and Design Skills and Hidden Design. The survey would use a mix of open-ended and Likert scale questions (on a scale from 'strongly agree' to 'strongly disagree'). We propose maintaining a set order of questions and not randomising the sequence, since these questions build on each other. We do not anticipate the timing of the survey to be crucial but suggest that it should be repeated annually on the same dates every year to control for differences. Translating surveys about public attitudes towards the topic of design is not straightforward since there

are few established design facts and little 'textbook knowledge' that can be used as an indicator of public design knowledge. The survey questions used for testing design knowledge would be experimental and include open-ended questions to identify if design knowledge is worth investigating further.

4.2. Analysis

Since many of the questions would be open-ended; some of the data will require qualitative coding to identify themes in the responses. Once coded, the established categories can be tracked in subsequent surveys. The analysis of the survey as a whole should provide a statistical overview of the national picture around public understanding and attitudes as well as specific insights into hidden design. In particular, it will establish a quantitative baseline that enables long-term trends to be monitored. The results can be used to support arguments about the future direction of design programmes. For instance, the regional and demographic breakdown offered by such a survey should help guide the targeting of public design education programmes.

4.3. Workshops

We recommend a series of workshops to address the following research questions:

- RQ1. How does the public understand design, design skills and their value?
- RQ3. What are the enablers and barriers for the public understanding of design?
- RQ5. How is design communicated, and how it should be communicated in order to encourage future designers?
- RQ6. What might be the future public understanding of design?

This approach will produce in-depth and participatory inquiry into public understanding beyond the omnibus survey. It would aim to generate shared definitions of design; explore barriers and enablers to public engagement with design; and produce future visions for public use and understanding of design.

Workshops can take a range of flexible formats based on the researchers' expertise, extending from basic discursive settings to more participatory workshops where design prototype elements and codesign can be introduced. We recommend that the workshops consist of a minimum of four sessions with 10 people, distributed across a range of UK locations. They can be delivered face to face, and also via digital platforms, while ensuring formats are accessible to participants with different lived experience, needs, positions, identities and perspectives.

4.4. Analysis

Analysing these focus groups will require qualitative analysis of audio recordings and thematic coding of the data. The results should provide an in-depth perspective on the public understandings of design. It should also be directly useful in providing evidence for supporting future design-focused public programming.

4.5. Equality, diversity and inclusion

This methodology addresses issues of equality, diversity and inclusion first by ensuring that diversity data is recorded in relation to omnibus survey participants: do certain groups have greater access to/ understanding and experience of design? Second, by ensuring a diverse range of participants are invited to workshops. And third, the workshops themselves will delve deeper into issues of access and participation in design.

It will be important with the survey and other research methods to consider accessibility. Although the survey will be delivered by adding a small number of questions to an omnibus survey, in commissioning the research, the survey partner's approach to ensuring a fully representative and diverse sample should be ascertained and assessed. Will the voices of marginalised groups be adequately represented: for example the voices of young people, those in care, or those with disabilities which may make it difficult to complete a survey? In planning and delivering the workshops, an assessment should be carried out to consider accessibility (for example thinking about time, location, duration, medium etc), and the workshop design formats (face to face, online or blended) tailored accordingly. Compensating participants in some way for their time commitment and contribution should be considered.

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Credits

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About BOP Consulting

BOP is a research and strategy consultancy specialising in culture and the creative industries. Over 20 years it has supported government bodies, leading arts and cultural organisations, property developers and international agencies through over one thousand assignments resulting in strategies, programmes and impact.

About the Social Design Institute, University of the Arts London

The Social Design Institute is one of UAL's new institutes. Its mission is to develop and use research insights to change how designers and organisations go about designing, resulting in equitable and sustainable outcomes. Its focus areas are the intersection of design and value, systems and public policy through original research, knowledge exchange and collaboration.

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Appendix 1. Existing studies and programmes

A number of studies have focused on public attitudes in relation to the specific areas of architecture and urban design in the context of policy. People and places: Public attitudes to beauty (CABE, 2010) asked about public attitudes towards beauty in relation to values, politics and future development. The value of good design: public perception (CABE, 2002) includes public statistics for statements such as ‘People work more productively in well-designed offices’. Similarly – and much more recently – the RIBA study Homeowner Survey – Happiness Through Design (2021) asked the public how the design of their home affected their mental wellbeing during the COVID-19 pandemic. These studies used omnibus surveys to ask the public about their perception of design¹. The RIBA report Ten Characteristics of Places where People want to Live (Carmichael & Stern, 2018) uses a case studies method to identify the top 10 public needs in relation to housing, while a study led by LSE (Lewis et al., 2011) following the UK riots in 2011 used interviews to reveal that people care about the beauty of their environment as ‘good design’. The Engineering Brand Monitor (Engineering UK, 2019), an annual survey of 7 to 19 year-olds, addresses young people’s future aspirations and employment possibilities. It asks questions such as, ‘How much do you know about what people working in engineering do?’. If the Design Economy report focuses on how to bring young people into the design profession, this would be a useful survey to replicate.

There is some research on what might be called ‘hidden design’ from the Crafts Council’s making reports (Crafts Council, 2012; 2020) that includes statistics on informal design taking place in people’s homes. Understanding Everyday Participation, a five-year research project funded by the Arts and Humanities Research Council as part of their Connected Communities: Cultures and Creative Economies programme, focused on articulating and exploring cultural value in terms of ‘the meanings and stakes people attach to their hobbies and pastimes’ and away from the institutionalised forms of arts participation². In addition, there is consumer research on public attitudes toward specific design trends, for example ‘neo-retro’-product design (Fort-Rioche & Ackermann, 2013). There are also discussions in the grey literature about how designers need to communicate the role of design to the public³. Yet these approaches appear to be too constrained and fragmented to be useful as a foundation for the public understanding component of the Design Economy report.

There is also a history of directly communicating to the public about design by showing them what design is and articulating its benefits. For example, the 1946 Britain Can Make It⁴ exhibition at the Victoria and Albert Museum aimed to actively communicate the new field of industrial design to the public. Similarly, the contemporary Royal Television Society Awards⁵ for Craft & Design is a public showcase for illustrating what ‘best’

¹ Omnibus surveys typically aim at a nationally representative sample of 1,000 - 2,000 adults.

² <http://www.everydayparticipation.org/about/test-showcase-page/>

³ <https://uxdesign.cc/the-value-of-design-ffb0dce85802>

⁴ <https://www.vam.ac.uk/articles/britain-can-make-it>

⁵ <https://rts.org.uk/awards/craft-design-awards>

British design looks like, while TV programmes such as *The Great Pottery Throw Down*⁶ connect a history of design with an entertainment context. Other formats such as the Design Museum's 2004 exhibition *Under a Tenner*⁷ asked the public what they believed to be 'good design' and exhibited those objects publicly.

In summary, to our knowledge there are no academic or policy studies in the UK or worldwide that allow for a direct and comprehensive analysis of the public understanding of design. The key gap is that there is very little knowledge about how different publics understand design and how design knowledge and attitudes towards design are shaped (both of crucial importance from the point of view of Equality, Diversity and Inclusion). Specifically, there is no analysis of the friction between design experts and lay publics or enablers of and barriers to public understanding of design. In contrast, there is significant research in the field of public understanding of science, from which the operational concepts and methods for this report are adapted.

⁶ <https://www.channel4.com/programmes/the-great-pottery-throw-down>

⁷ <https://park-studio.com/project/under-a-tenner>

Appendix 2. Key concepts

To develop this methodology, we drew on some operational concepts from sociology, science and technology studies, public understanding of science and participatory action research. Researchers in these fields have acquired a lot of experience of engaging with public understanding of science. Well known cases include large scale consultations around nuclear energy and genetically modified food that have brought together publics and experts. For this reason, we believe that building on this knowledge in the present context can be fruitful.

Public and publics

Definitions of the public are complicated and contested. At one level the public is ‘every person in society’ yet in relation to science communication they can be segmented into “scientists, decision-makers, general public, attentive public and interested public” (Burns et al., 2003). The notion of “issue publics” (Marres, 2005) suggests that publics are not pre-existing, but created in response to public problems not being dealt with. The concept of a “ladder of participation” (Arnstein, 1969), and a more recent version of it (Shirk et al., 2012), suggest discrete steps between ‘informing’ the public and ‘empowering’ them that offer different levels of agency and scope for participants. These concepts suggest that there is not one single ‘public understanding of design’ but a multitude: how do different groups understand, respond to and engage with design? Of course, engaging multiple publics requires a variety of different methods, and an awareness of the power relationships implicit in the methods.

Public knowledge deficit

Emerging in studies of the public understanding of science, the notion of a public knowledge deficit is also known as information deficit or science literacy deficit (Irwin, 2014). The central premise is that public hostility to science is caused by a lack of understanding, resulting from a lack of information. This discussion can be traced to scepticism about the authority of expert decision making around scientific and technical issues that have direct impacts on people’s health and well-being (Wynne, 1996). The discussion centres on the expertise and status of the expert vis-à-vis lay understanding. Building on this insight, we propose investigating to what extent different publics trust or distrust design experts, and whether that relates to a public knowledge deficit about design⁸.

Different ways of knowing

The science and technology studies literature suggests that there are multiple forms of knowledge, such as situational expertise (Wynne, 1996) and tacit knowledge (MacKenzie & Spinardi, 1995). Others argue that design needs to engage with multiple different realities as they are experienced by different groups (Escobar, 2018). This suggests that there might be a wide range of public practices of design that are currently not officially recognised as design and, furthermore, that the design skills involved are not accounted for. The methodology proposed investigates this, as well as the different ways that people interpret and value design (Nabatchi, 2012).

⁸ An example here could be the Garden Bridge in London, a high-profile controversy about design expertise which has been described as a landmark of the post-truth era (Moore, 2017).

Equality, diversity and inclusion

There is widespread consensus about the importance of Equality, Diversity and Inclusion (EDI) (EHRC, 2018). Indeed, in recent years it has become an imperative for organisations to have an EDI strategy. And yet, the discourse of these three anti-discrimination solutions – equality, diversity and inclusion – is much older (Oswick & Noon, 2014). The historical perspective, going back to the 1970s and beyond, is a good platform from which to consider the range of possible contributions that design can make to the EDI agenda. In practice, the implementation of the EDI agenda often comes down to improving engagement with different groups in society and building diverse needs and interests into design, delivery and communications (Department of Energy and Climate Change, 2012). Such principles can and should be built into future research on public understandings of design.

Appendix 3. Review of existing methods for public understanding

Literature from the ‘public understanding of science’ has informed this methodology, both in terms of the key concepts it uses and in terms of specific methods deployed in relation to science for the purpose of gauging public understanding. We offer an overview below, as context for our methodological recommendations.

Surveys

The most common method in public understanding of science is annual national and international surveys, such as the Eurobarometer⁹, that have been taking place since the 1970s (Bauer, 2008). These have used face-to-face as well as telephone interviews. The benefit of the survey method is that it can reach a large sample of people (i.e., thousands) and can be used for demographic or topic targeting or to control for demographic skewing. The ability to standardise these surveys has also allowed a comparison between countries and over time. The surveys produce media noteworthy statistics that can be used to bring public attention to specific topics. Public understanding of science surveys have focused on two separate concepts; public knowledge and public attitudes. Knowledge questions focus on knowledge of scientific facts such as, ‘Antibiotics kill viruses as well as bacteria (yes/no)’; or scientific methods such as, ‘Tell me in your own words, what does it mean to study something scientifically (open-ended)’. The focus on attitudes is exemplified by statements such as, ‘The benefits of science are greater than any harmful effects of science (agree - disagree)’ (Brossard et al., 2005). In terms of attitude surveys, one element that has been noted are gender differences (Breakwell & Robertson, 2001). This might be a useful direction for analysis in surveys of design knowledge and attitudes.

The limitations of surveys are that they are unidirectional and constrained, making it hard to construct substantive arguments about

public understanding. This is why we suggest supplementing surveys with in-depth face-to-face methods.

Focus groups (with participatory elements)

Focus groups and citizen juries have been used in public understanding of science to bring experts and laypeople into face-to-face contact to discuss topics ranging from genetically modified food (Irwin, 2006) to nanotechnology (Delgado et al., 2011). Common questions include, “(1) Why should Public Engagement be done?, (2) Who should be involved?, (3) How should it be initiated?, (4) When is the right time to do it? and (5) Where should it be grounded?” (Delgado et al., 2011). There is a wide variety of approaches to this method, from structured and moderated panel discussions to small scale workshops where participants take part in co-design with designers and facilitators and/or experts (DiSalvo et al., 2014; Hillgren et al., 2011; Le Dantec, 2012).

Structured focus groups exploring specific topics can be combined with more participatory design in workshop settings (Kankainen et al., 2012). In the context of the current project, and considering the COVID-19 situation, remote design participation via ‘design probes’ (Gaver et al., 1999) might be valuable. This involves sending out a series of packs that invite participants to create visual and textual responses. The benefits of adding such visual components to focus groups is that they invite a range of expressions tapping into the different ways of knowing discussed above. They are also effective in unsettling the assumptions of the researchers (Gaver et al., 2004).

⁹ <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm>



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