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DESIGN IN PUBLIC AND SOCIAL INNOVATION

WHAT WORKS AND WHAT COULD WORK BETTER

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A flood of initiatives to use design methods is underway around the world. The hope is that these will advance public and social innovation and achieve creative solutions beyond the reach of conventional structures and methods. Some of the momentum originates in firms offering distinctive techniques: IDEO and Frog, Thinkpublic and Engine have been amongst the pioneers. Public bodies have also promoted design, including Mindlab in Denmark, SITRA in Finland with its Helsinki Design Lab, the Design Council in the UK and Region 27 in France. Umbrella organisations like the Design Management Initiative and collaborative programmes like DESIS have also played a part. Interest in these various methods has grown in tandem with rising interest in social innovation. Within the public sector the imperative to improve user experiences has combined with acute pressures to raise productivity.

So could good design deliver both quality and diversity? Strong advocacy by the design community has paid off in terms of interest.[1] Indeed the language of user–led design, and recognition of the need to apply design thinking to public services has become fairly commonplace, and a recent survey of social innovation methods in use around the world found many with design elements.[2]

But the strong push over the last decade has also prompted some criticisms, often in reaction to over–inflated claims. There is very little hard evidence on what works – and some resistance to formal evaluations let alone more rigorous methods such as randomised control trials. The advocates of design methods have been unclear about whether they are primarily promoting methods derived from product design, promising policymakers some of the magic of Apple iPads, Dysons and Toyota hybrids, or whether they are echoing the ideas promoted by Herbert Simon and others a generation ago that see all public service as involving aspects of design: policy design, organisational design, service design, and role design.[3] Design methods have also been criticised for their uneven usefulness: they can work well for some stages of the innovation process but less so for others, and some of the weaknesses of design methods have been exposed by their application to novel fields. Moreover, despite the apparent interest, the majority

of design being done in public services does not involve designers or (many) design methods: the latter remain consigned to fairly marginal pilots and experiments, and there are still few signs of public services building up the capacities needed to be good commissioners of design.

So what's going right and what's going wrong? Is design a key to more efficient and effective public services, or a costly luxury, good for conferences and consultants but not for the public?

Now is a good moment to take stock of what is working and what could be working better, and in this paper I look at the elements of the design method; the strengths of current models; some of their weaknesses and the common criticisms made of them; and what might be the way forward.[4] As I will show design has a great deal to contribute – but the grandiose claims made at times over the last decade have often been more a hindrance than a help. Designers now need to find a humbler tone, to pay more attention to results, to attend to the 'deep craft' that's needed for successful public innovation, and to recognise that they are most likely to achieve their best within teams bringing together complementary skills.

Strengths of the design method in social innovation and public service

Design promises to bring flair and delight to services that can seem dull, homogeneous, and unresponsive, and it has done so before. There is a clear line of continuity between some of the claims made by 19th century designers such as William Morris, advocates of a generation ago such as Victor Papanek,[5] and today's arguments for more ecological and human-centred design. A century ago Bauhaus modernism saw itself as a radical democratic movement that would use mass manufacture to improve the lives of the people, offering an alternative to mediocrity. Industrial designers who had made good products available to everyone went on, a few generations later, to meld mass production and craft production so that a vastly wider variety of distinctive objects became available at affordable prices, a move which effectively repelled the critics of numbing conformity in mass production and standardisation.

Public services aspire to a comparable mix of variety and affordability. Most of the work of designers in public services and social issues has used methods associated with product design and applied them directly to very different problems. Its methods generally combine four main elements.

Understanding user experiences: a first set help with understanding, and getting to the roots of the problem that needs to be solved. Designers have adapted some of the methods of ethnography to see how the world looks and feels to the users of services, tools that were at times used in public services but more often forgotten. The use of stories, videos, picture boards to map the real experience of being a patient or a welfare claimant invariably provide new insights. Under the banner of 'user-led design' designers have also adapted some of the methods of social movements – like the disability rights movement – which have always involved people in need in shaping new alternatives. As they've found, serious engagement with end users of any kind brings new insights to the surface, showing how apparently well-designed systems often fail to take account for the fine grain of daily life. Individual services may work well but the whole service journey does not, whether for a patient with a life threatening condition, or a pupil passing through schools and colleges.

There are of course plenty of designers who practise very different methods – using their own skills to imagine, reinvent and recombine. The most visible example is Apple's Jonathan Ive who is sceptical of user engagement on the grounds that the designer's job is to jump ahead of public perceptions of want and need. But the emphasis on user engagement has generally had an enlivening effect on public servants. These methods bring freshness and clarity to public services that often take their existing frameworks for granted. Design quickens thinking. It bridges the gap between thought and action,[6] and it can bring to the fore the micro-politics of services and the question of who is defining the purposes of services.

Ideation: the next set of tools move on from diagnosis to ideas. Tools for creativity can sound opaque and mysterious, or superficial. But the serious analysis of design has shown that relatively straightforward tools can have a big impact on creativity, helping teams develop much longer menus of options. For example, IDEO's methods can be deconstructed into simple, incremental steps.[7] My own experience of service design in the social field and around public services has confirmed for me that a series of easily used steps can help teams to come up with much more radical ideas.

The table summarises a version I developed, along with examples. The usual method is to draw on a range of inputs – ethnographic, economic etc. – and then apply each of these approaches listed below to the problem or service being considered so as to generate menus of new options.

SOCIAL DESIGN TOOLS™	
^	**Inversion** (peasants become bankers, patients become doctors)
∫	**Integration** (personal advisers, one stop shops, portals, speeding flow)
X	**Extension** (extended schools, outreach)
∂	**Differentiation** (segmenting services by groups, or personalisation)
+	**Addition** (getting GPs to do a new test, libraries running speech therapy)
–	**Subtraction** (no frills, cutting targets, decluttering)
t	**Translation** (airport management into hospitals, business planning into families)
g	**Grafting an element from one field into another, creating a new fusion** (coaching into a secondary school)
∞	**Creative extremism** (pushing ideas and methods to their furthest boundaries)
r	**Random inputs** (e.g. dictionaries, Yellow Pages)

Rapid prototyping: Once new ideas begin to crystallise, they can be tried out fast, again an approach that is alien to mainstream bureaucratic practice. Designers tend to favour rapid prototyping; learning fast by doing things rather than very detailed planning, and today we have not only rapid prototyping of things, using new tools such as 3D printers, and not only the tools of CAD, but also a third generation of prototyping tools that allow fast, collaborative creation of new systems and services. Rather than spending years perfecting a new service model or strategy the best way to improve it is often to do it on a small scale, and for real. This has always been the way in some of the crafts, and architects such as Christopher Alexander[8] have long advocated this approach for buildings too – using mock-ups of structures and putting them in

situ to see whether they really do feel right. It comes naturally to social entrepreneurs, and to some innovators in the professions (Michael Young, for example, always believed in what we now call rapid prototyping, starting small-scale precursors of what became NHS Direct or the Open University partly to learn what works, and partly to create momentum).

Visualisation: during each of these stages design methods tend to be very visual – and graphic designers have played an important role in both the practice and promotion of design. Clear visualisations of problems, and of potential solutions, can have a surprising impact in cultures dominated by blocks of prose, and the occasional data chart. I've often been struck by the influence achieved by some very small projects thanks to good visual communication – even when otherwise very similar ones have achieved better results. Bold, clear, visualisations have a powerful impact on otherwise sceptical civil servants, and good branding helps ideas to travel.

Systems: finally, designers have adopted ideas from systems thinking, partly in response to earlier criticisms that portrayed designers as coming up with overly discrete product or service ideas. Systems thinking prompts us to ask the right question rather than taking questions at face value. What, for example, is the real problem of non-attendance at school? Is it a failure on the part of schools themselves, of families or of young people? Do the real causes lie in the fact that lessons are boring, or that popular culture devalues hard work? Or take street homelessness. Is the underlying problem a lack of housing or is it in fact more to do with mental illness, drink and drugs or family breakdown? Or what of the apparent rise in mental illnesses across the developed world? Is it just an artefact of the statistics, since we now measure things that weren't measured in the past? Is it an effect of stress, the waning of religion and the family? Or is it, as some recent research suggests, the long-term effect of the very pharmaceutical products that were meant to address the problems of mental illness in the first place? Getting the questions sharply focused is the necessary condition for getting the answers right, and, in general, the more we can think systemically rather than in institutional and disciplinary silos the more likely it is that we will achieve results. In each of these cases the fact that designers aren't parti pris or part of a powerful profession gives them a distance to see and say things that the incumbents can't. Often having a designer involved strengthens the innovators within the system: it legitimises the things they want to say.[9]

Weaknesses of design projects and methods

It should already be clear that design methods are best understood as a synthesis of methods drawn from many fields, including product design itself, that together helpfully mitigate the traditional limitations of public policymaking. So what are the weaknesses?

The first set of complaints are about cost – highly paid consultants jet in from London or Los Angeles to work in poor communities, using methods that may work for electronics manufacturers or sports goods but turn out to be ill-suited to the cash-constrained realities of the poor. This is a particular complaint in the developing world but it's also been a problem in the UK and other rich countries where very well paid designers have been parachuted into poor areas to help redesign children's services or hospitals.

A second typical complaint echoes the general complaint about consultants – that they appear to be committed but disappear as soon as the money stops flowing. This would arguably matter less if there wasn't such an emphasis on users' voice and needs in design rhetoric. Because the usual unit of design work is the project, it's often hard to demonstrate impact. Some have responded by focusing instead on the development of sustainable ventures – this allows for a longer period of development, and greatly enhances the prospects for long-term impact.

The third set of complaints criticise designers for not matching their skills in creativity with skills in implementation. Many would concede that design methods widen the menu of options available to public services. But they warn that lack of attention to economics – ensuring that ideas are cost-effective – and lack of attention to organisational issues and cultures, condemns too many ideas to staying on the drawing board. So for example, it's common to see new ideas which claim to save money for the public sector by preventing future costs – prison numbers

or hospital admissions. But the costings tend to be simplistic; to ignore the knock-on effects on other services; or the sort of evidence that policymakers might require, such as trials with proper control groups. Much of the evidence on what helps innovations to diffuse has yet to be integrated into design thinking.[10]

The fourth set of complaints warn that designers are poor at learning. They are eloquent on why other fields and disciplines need them, but not so good at recognising what they might need to learn from others. A tendency to reinvent the wheel is particularly striking in some cases – the freshness that is often a virtue can turn into a vice, as very old ideas are reimagined and presented as if they are brand new, and without regard to the lessons learned from their past failure.

I've several times sat in meetings with designers and design promoters, alongside policymakers, where the same pattern has repeated. The policymakers grudgingly accepted that they might have quite a bit to learn from the designers; but the designers appeared baffled when it was suggested that they might have something to learn from the policymakers, or from the many other organisations and fields with claims to insight into service design: social entrepreneurs, professions, consultancies, IT, policymakers. There are plenty of exceptions to this rule: but overblown claims that design methods are uniquely placed to tackle complex, holistic problems has not always helped to inspire a culture of collaboration and mutual learning.

The challenge

Many of the criticisms of designers are unfair. Good designers recognise that their skills only become useful when combined with other complementary skills. Most have avoided the risks of hubris. But even so, we're still left with a challenge: how can we mobilise the best of design without amplifying its weaknesses? The answers are likely to have to do with team management, skills, formation, and use.

1. Teams engaged in design need a full mix of skills to ensure awareness of organisational, economic, political and social contexts, and they need project managers who are genuinely multilingual across a range of fields and disciplines.
2. Some designers, at least, need to combine design skills with other key skills (economics, policy, social knowledge), in a 'T' shape, to reduce the risks identified above.
3. Alongside more skilled people we need better methods – that use design within project frameworks that improve their prospects for implementation. A fair amount of work has been done in this area, but there is a need for more systematic experimentation and evaluation. Just as important, project management methods need to be adapted to ensure that they are both cheaper, and leave behind stronger skills in the organisations and communities that will implement the designs (not least because innovation is a constant, evolutionary process, and even the best ideas need to be adapted in the light of experience).

Design in the context of innovation

Finally, we need a different kind of conversation. The style of many events in the last decade, which simply showcased and promoted design, needs to give way to something more like conversation and mutual learning. In particular design needs to learn from the larger study of innovation. Figures such as Rosabeth Moss Kanter, Gary Hamel and Clayton Christensen have tried to understand some of the common patterns of innovation, such as the role of disruption or the relatively poor performance of very successful innovations in their early phases of competition with more mature, and more optimised, incumbents.[11] There has also been a recent surge of interest in open innovation[12] and user-driven innovation,[13] both of which are interesting examples of ideas with a long history in the social field being adapted to business. All touch on design. The connections are even more striking in the case of arguably the most impressive

recent attempt to provide a structured analysis of technological change. Brian Arthur's work suggests that technology often starts with observation of natural phenomena – such as light, heat and motion in the case of physical technologies, and social interactions in the case of social ones. It then seeks to replicate, or otherwise mimic these in ways that amplify their power, and comes to be organised in architectures that include sub–systems and components, each of which can evolve in tandem. And it has its own logic of evolution, as advances in one field prompt advances in another, or as an entirely new domain of knowledge is brought to bear on a particular problem.

Brian Arthur emphasises in particular the 'deep craft' that is key to sustained technological innovation. Much of this has to be intuitive, built up from a feel for the elements that are brought together in a service or product, and from experience of what does and doesn't work. Here we see a much broader notion of design than that brought by product designers. The deep craft needed for innovation in fields like education or health is as likely to have its roots in psychology as in engineering; in social dynamics as much as physical ones. But so far, this broader notion of design lacks champions – and in many fields there is a lack of people with the skills to straddle the different domains of knowledge so crucial for effective design.

Conclusions

At their best design methods and design thinking catalyse people to see issues and possibilities in a fresh way. They spark creativity and help us to spot the possible connections between things, which so often become obscured by the silos of daily life which dominate governments and businesses alike. But we're at a fascinating moment when design needs to learn as well as teach if its full potential is to be realised. If it does, it could become one of the defining fields of the next few decades. If it doesn't it risks being seen as a fad that failed.

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Endnotes

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2. NESTA and The Young Foundation (2010) 'The Open Book of Social Innovation.' London: NESTA.
3. See for example Whiteley, N. (1993) 'Design For Society.' London: Reaktion Books.
4. This paper is based on observation and many conversations with people in the field rather than hard evidence (partly because the field has had so little external measurement and evaluation). I was on the board of the Design Council for several years, and helped review their work in public services. I've also taken part in many design conferences, festivals and competitions, and have benefitted from hundreds of conversations with designers and users of design. Like many I oscillate between enthusiastic inspiration and occasional frustration.
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7. Markman, A. and Wood, K. (ed.) (2009) 'Tools for Innovation.' Oxford: Oxford University Press.
8. Christopher Alexander's huge collections from the 1980s and the 2000s still represent an unmatched vision of both the principles and practice of design, though he rarely uses the word itself. [ADD REFS]
9. For an overview of systemic innovation, see the papers by Geoff Mulgan and Charles Leadbeater published by Nesta, January 2013.
10. See for example Rogers, E. (1995) 'Diffusion of Innovations.' New York: Free Press; Nutley, S., Davies, H. and Walter, I. (2002) 'Conceptual Synthesis 1: Learning from the Diffusion of Innovations.' ESRC Working Paper 10. Swindon: ESRC; Nooteboom, B. (2000) 'Learning and innovation in organisations and economies.' Oxford: Oxford University Press.
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