

Public Design

How do public managers use design thinking?

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Introduction: Significance of the thesis

The purpose of this paper is to outline the background, key research questions, and methodological considerations that I expect will guide the Ph.D. project *Public Design*. The present WIP paper builds on the original Ph.D. application of May 2010 and the accepted Ph.D. project proposal of September 2010.

Experiencing design thinking

Scene: I am interviewing a public manager from the Department for Families in the state of South Australia, in the offices of the Australian Centre for Social Innovation in Adelaide. We are in a small meeting room on the first floor of an office building in central Adelaide; the table is elevated and we are sitting on café-like high stools. Warm afternoon light is streaming in through tall windows.

The public manager, Carolyn, describes how she has experienced her full-time secondment for nearly eight months to an externally funded project on how to redesign services for “chaotic families”. These are families that are typically characterised by high levels of alcohol abuse, violence, unemployment, and dysfunction. For the past eight months she has not any longer acted formally as a manager, but has participated together with a small team of a designer and a sociologist in exploring how such families live their lives, with the aim of finding new opportunities for helping them to become “thriving families”.

Carolyn says: “I was trained as a social worker to assess and categorise various social events. Throughout this project I have needed to undo all that. And that is difficult. I have been given the space, time and resources to really reflect on what we have been doing in our agency. We have handled these problematic families as a pre-designed ‘programme’, with fixed criteria and no end-user involvement.”

Carolyn describes the new families project as a ‘resourcing model’, which is radically different from how she has worked during her 10-year career as a manager. “It is bottom-up, it has end-user focus, and there is no fixed structure, criteria or categories. The work has been extremely intensive. We have focused on motivation and on strengths within the families – identifying the ‘positive deviances’ where some families are actually thriving, even though they shouldn’t be, according to the government’s expectations. We have focused on finding entry points and opportunities, rather than just trying to mediate risk. It is a co-design, or co-creation approach, and it has been entirely new to me.”

“We are ourselves experiencing the actual interactions within and amongst the families, and breaking them down to examine in detail how they might look different. It is very concrete, capturing what words they use... It all looks, feels, sounds different than what I did before. Taking an ethnographic approach is entirely new to me. It has helped me experience how these citizens themselves experience their lives, and has allowed me to see the barriers. I have had to suspend my professional judgement. The whole iterative nature of the project, that it is OK to change, has made me understand how much of what we do is a matter of attitude. In this project, we are capturing their concrete stories, and allowing immersion into their reality. Doing my own

ethnography in this way has been a phenomenal journey. Today we as administrators meet the families reactively. We are trapped in a culture of risk. I can see we need a mindset change in my profession. We are forgetting to see the potential. We are lacking openness and passion.”

“During this new project I have had to let go of my self as a manager and leader. Looking back now, I am seeing how the system could be very different. I have made decisions about removing newborn babies from their mothers that I now see weren’t at all necessary. That recognition is really painful.”

This PhD project seeks to explore how design thinking processes such as the above play out in public organisations, with emphasis on their potential significance for public managers as drivers of innovation.

Governments seeking innovation

An increasing number of public organisations across Western societies are in search of innovation. The fallout of the global financial and economic crisis has thrown many governments and their administrations, into an extremely challenging situation. It is well known that countries such as Greece, Italy, Spain, Portugal and Ireland have now for some time been at the brink of state bankruptcy. They are thus under very significant pressure to dramatically reform public services, pension systems and perhaps even transform the fundamental relationship between citizens and the state. However, other governments in less dire circumstances are undertaking similar, if not even more radical, measures. In the United Kingdom, the coalition government has proposed the notion of the “Big Society” as a new framework for the division of labour between public bodies and civil society, while cutting away half a million public jobs over four years. In the US, state governments and some cities are reaching the point where there is no money to pay for even basic infrastructure. In Denmark, the current government has announced a ‘negative growth’ strategy for the public sector’s share of the economy, at a point where public spending has grown steadily for the last 20 decades.

These attempts to rein in the scope of the state happens at the same time as the very same societies are facing seemingly intractable social challenges such as chronic health problems, ageing, unemployment and poverty. Even though ‘wicked problems’ (Churchman, 1967; Rittel & Webber, 1973) are not unique to the public sector they certainly characterise most of these challenges. Hardly any of the key policy problems of highest urgency for governments can meaningfully thought of as “tame” problems that can be addressed through a linear thinking process towards well-defined, stable and clear goals. Almost universally, the rhetoric in these countries, and others, is therefore that there is a need for more innovation in government to effectively deal with such challenges, enabling public service organisations to deliver more and better services at less cost. However in spite of the rise of digital technology such as the Internet as nearly revolutionary drivers of innovation – also in many parts of the public sector – we remain, to paraphrase British thinker Charles Leadbeater, political and institutional conservatives. Given the growing sense of urgency, however, there now appears to be a call for more ‘radical’, ‘disruptive’ or ‘transformative’ innovations in government that can enable the delivery of markedly better outcomes and services to citizens at significantly lower cost.

Design thinking on the public sector innovation stage

Innovation can, in a public sector context, be defined as *new ideas that are implemented and create value for society*. The quest for innovation in government has in recent years increasingly been reflected in the literature, both in Denmark (Digmann et. al., 2005, 2009; Bason, 2007, Bason et. al., 2009, Bason, 2010) and abroad (Mohr 1969; Borins, 2000, 2001; Mulgan & Albury, 2003, 2005; Mulgan, 2007; Osborne & Brown, 2005; Eggers & Singh, 2009). There is also some, but not much, academic research into the role of public managers in leading public sector innovation. In Canada, Borins (2000) has done some interesting work on innovative public managers as ‘Loose cannons and rule breakers, or enterprise leaders’. In the US, the Harvard Ash Institute for Democratic Governance and Innovation has published a work aimed at ‘public innovators’, who are to some extent framed as managers (Eggers & Singh 2009), and arguably, from a Danish perspective, Digmann et. al. (2009) and myself (Bason 2007, Bason, 2010) have tailored our books towards the management level, albeit not with much new empirical data on the individual leader’s practices or approaches. Generally speaking, the available literature is largely embedded in a public management tradition, without much regard for how other disciplines – including design – might bring to the table. Exceptions are books such as Parker & Heapy’s *The Journey to the Interface* (2006) and Bate & Robert’s *Experience-based Design* (2007). Moreover, the writing to date has been largely concerned with *what* public sector innovation is – what *characterises* it – rather than with *how* it might be brought about.

However, in recent years there have been growing empirical indications that *design thinking* might have something profound to offer public organisations looking for innovative outcomes:

- In *Australia*, as indicated in the case excerpt above, several organisations have leveraged design thinking to help drive innovation. For instance, the Australian Taxation Office has for a number of years applied design approaches (Preston, 2004), while a very recent example is the work carried out regarding at-risk families by the semi-public organisation The Australian Centre for Social Innovation.
- In the *United Kingdom*, the field of service design has seen rapid growth over the last decade or so, not only among design consultancies such as LiveWork, Engine, Participle and Think Public, but also including the establishment of a public or semi-public bodies which explicitly apply design thinking, including the National Health Service (NHS) Institute for Innovation and Improvement, Kent County Council’s SILK initiative, and the UK Design Council’s Public Services by Design programme. Currently a new tranche of design projects are under way both within the NHS Institute and within the Design Council.
- In *New Zealand*, the consultancy ThinkPlace has worked extensively with government agencies to help them adopt design thinking; currently a major project focusing on identity information across multiple departments is underway, and is set to explore the use of design approaches.
- In *Denmark*, cross-ministerial innovation unit MindLab (the organisation I currently lead) has for almost a decade been inspired by design approaches to public sector innovation, and is increasingly applying design thinking more systematically in its work for Danish government departments and agencies in business affairs, employment and taxation. Likewise, Local Government Denmark is sponsoring the use of design thinking in local government projects, helping municipalities collaborate with a wide variety of strategic and service design firms. Apparently significant results

have resulted from applying design thinking in fields such as conflict reduction in high security prisons, public-private collaboration on health technology, redesigning services for individuals with a work injury, designing better meals for ageing persons, and engaging mentally handicapped citizens in creating new public services.

- In *Finland*, the national innovation fund Sitra has launched a programme focusing on the applicability of design in government through its design initiative *Helsinki Design Lab*
- In *France*, the non-governmental organisation *La 27e Region* is applying design thinking approaches to assist a number of the country's 26 regional governments proper to develop innovative approaches to, amongst others, education and sustainable development.
- The *United Nations* Research Institute for Disarmament Research (UNIDIR) has begun exploring how design might power innovation in as diverse fields as education, sustainability, ageing and third world conflict resolution (UN, 2010).
- The *European Commission* has for a number of years sponsored the Sharing Experience Europe (SEE) project to stimulate the integration of design into regional, national and European policies, and in this context has also identified the potential of design for innovation in public services as that "better respond to the needs of the population" (SEE, 2010)
- Finally, 'social innovators' and 'social entrepreneurs' are increasingly claiming, in the intersection between government, business and the third sector, that design principles can generate new models for producing public value from the bottom-up. In the *United States*, the design firm Project H Design, which focuses on design for social impact, amongst others in the education field, is one of the pioneers. Another is the social enterprise Daily Dump, which has used design approaches to transform composting in major cities across the Indian subcontinent.

There is thus a rapidly growing body of more or less anecdotal evidence that design thinking may offer a way of dealing more effectively with vastly different types of public problems and challenges. Strong value propositions of what design thinking entails are put forward by a number of actors, more or less explicitly stating that design is the 'midwife of innovation' (iLipinar et. al., 2009; UK Design Council, 2009), and that the application of design can in fact be key to more fundamental transformation of the business of government. Amongst the proponents are obviously institutions such as UK Design Council, Danish Design Council and Helsinki Design Lab, but also organisations such as the UN and the European Union, as indicated above.

This raises important questions such as: How is this in any way a new and different approach to the development of 'new', 'different', 'better', or whatever label we wish to attach to 'innovative' public policies and services? How does it work, and what, if anything, does it in practice 'do' for public managers?

The new shape of design

The apparent growth in design applications in the public sector seem to point to the flexibility, if not the indeterminacy of design, so that "much confusion surrounds design practice" (Heskett, 2002 p 2). However as Herbert Simon proposed already in the late 1960s, design can be understood as the human endeavor of converting actual into preferred situations (Simon, 1969). As Richard Buchanan of Case Western Reserve University's Weatherhead School of Management has proposed, design can be thought of as *a liberal art of*

technological culture. In this definition, design is viewed as an integrative, supple discipline, “amenable to radically different interpretations in philosophy as well as in practice” (1990, p 18). Current developments in design certainly seem to show that design has not one, but many shapes. According to Buchanan, design affects contemporary life in at least four areas: Symbolic and visual *communication*, the design of material objects (*construction*), design of activities and organized services (*strategic planning*), and finally the design of complex systems or environments for living, working, playing and learning (*systemic integration*).

An emerging field

It is Buchanan’s latter, service- and strategy-oriented application of design that are of main interest in the present thesis. From a contemporary vantage point, Elizabeth Sanders and Pieter Stappers (2008) argue that design a discipline is indeed undergoing a significant transformation, which incidentally places it more squarely at the heart of an organisation’s ability to create new valuable solutions. Increasingly, designers and the design industry have realised that they can apply their abilities to a much broader context than merely ‘posters & toasters’ (the first two of Buchanan’s areas). Disciplines such as service design, which focuses on (re)designing service processes, or experience design, which focuses on designing a particular user experience, are in rapid growth. Similarly, there is a rapidly growing interest of design for ‘social good’, which in part is captured by the movement of social entrepreneurship and social innovation (Mulgan et. al., 2006; Murray et al., 2009; Ellis, 2010), and in part by the growing interest in public sector innovation (Mulgan & Albury, 2003; Eggers & O’Leary, 2009; Bason, 2010). Renowned professor of design at Milan Polytecnic, Ezio Manzini, speaks of ‘social design’ and others, such Emily Pilloton, founder and CEO of the aforementioned Project H Design, speak about design for social impact. Sanders & Stappers (2008) sum up this underlying shift in the role of design as a shift from ‘traditional’ design disciplines to ‘emerging’ design disciplines:

Table 1: The new shape of design

Traditional design disciplines	Emerging design disciplines
visual communication design	design for experiencing
interior space design	design for emotion
product design	design for interacting
information design	design for sustainability
architecture	design for serving
planning	design for transforming

Source: Sanders & Stappers (2008)

Bill Moggridge, co-founder of the design firm IDEO and now director of Cooper-Hewitt National Design Museum, similarly seeks to characterise the evolution of design, suggesting a hierarchy of design that distinguishes between *general awareness of design* (which concerns how people relate to design in their own lives), *specialist design skills* (which has to do with the design discipline and the methods of educated designers, such as graphic design), *design thinking* (which is concerned with the design process and how it can guide collaboration across different disciplines) and *design research* (which is the academic subject of researching the world of design) (Moggridge, 2009).

Capturing design thinking

Design thinking might thus be characterised as the theory and practice of using design-led methods to create new solutions (Sanders, 2006; Sanders & Stappers, 2008; Brown, 2009; Verganti, 2009; Kimbell, 2010). It

addresses a number of the key tenets of the emerging design disciplines that Sanders & Stappers (2008) highlight. It signifies an emphasis on design as an approach to problem-solving or devising a course of action, as opposed to an artistic, aesthetic or architectural emphasis. Although there is no uniformly accepted definition of design thinking, at least two interrelated characteristics may be pinpointed:

First, design thinking can be considered as the discipline of melding the sensibility and methods of a designer with what is technologically feasible to meet people's real world needs (Brown, 2008; Sanders & Stappers, 2008; Brown, 2009). This definition highlights tools and concrete practices connected to running specific design projects, powering organisations, and shaping innovative new products or services. One might characterise this as design as capability (Jenkins, 2008). The tools include, for instance, methods for creative problem-solving, user research and involvement, visualisation, concept development, rapid prototyping, test and experimentation. In the context of the emerging field of design it also seems clear that the role of the (specialist) designer seems to be shifting towards one as process facilitator or coach (Shove et al. 2007; Sanders & Stappers, 2008).

Second, design thinking can be viewed as an 'attitude' (Boland & Collopy, 2004) or a way of reasoning (Buchanan, 1990). This directs our attention to understanding design thinking as an approach to management, placing it "at the core of effective strategy development, organizational change, and constraint-sensitive problem solving" (Boland & Collopy, 2004, p. 17). In the same vein, Martin (2009b) characterises design thinking as the ability to manage and move between the opposing disciplines of *analysis*, involving rigour and 'algorithmic' exploitation on the one hand, and *synthesis*, involving interpretation and exploration of 'mysteries' on the other hand. At the heart of design thinking is thus, according to Martin, the balancing, or bridging, of two cognitive styles: The analytical-logical mindset that characterises many large organisations and professional bureaucracies, and the more interpretative, intuitive mindset that characterises the arts and creative professions. Martin highlights the capacity for *abductive reasoning* – detecting and following a 'hunch' about a possible solution, bridging the gap between analysis and synthesis. In Martin's view, such 'integrative' thinking is the essential core of design thinking (Martin, 2007; 2009). As Piore & Lester (2006) as well as Verganti (2009) have argued, intuition and the ability to interpret information to form new solutions is the 'missing dimension' of innovation. Likewise, in his work *Theory U*, C. Otto Scharmer (2007) describes how leading innovation requires a shift or movement through a U process, from modes of 'downloading' and 'discussion' to 'dialogue' and, finally, 'presensing', capturing the future as it emerges. Like Piore & Lester, who discovered that innovative business leaders employ a highly interpretative mode of thinking, Scharmer argues that the process of creation, for individuals as well as for groups and organisations, is much more about intuition and sensing, and less about cool logic. The model below juxtaposes the principles of analysis and of synthesis – the right-hand column an expression of a number of the key characteristics of design thinking:

Table 2: Design thinking: Bridging the gap

Analysis (Splitting)	Synthesis (Putting together)
Rational	Emotional
Logical	Intuitive
Deductive	Inductive
Solutions	Paradigms, platforms
‘Thinking it through’	Rapid prototyping (think through doing)
Single discipline	Multiple disciplines, T-shape
Elegance	Impact, value, diffusion

Sources: Inspired by Bannerjee (2009), Brown (2009), Martin (2009)

Although the two overall definitions of design thinking presented here appear different, on further examination they mostly support each other. Behind the practical orchestration of ‘design thinking projects’ lies a set of principles and a style of thinking that Tim Brown also acknowledges explicitly, referring to Martin’s *The Opposable Mind*: “...design thinking is neither art nor science nor religion. It is the capacity, ultimately, for *integrative* thinking” (Brown, 2009). Likewise, Martin takes Brown’s view of design thinking to heart and applies it as a key definition (2009 p 62). The distinction between the two definitions, blending design practices with a way or style of thinking, is therefore quite blurred. Perhaps the integrative nature of design has best been characterised by Buchanan, who states that design thinking is about moving toward “new integrations of signs, things, actions and environments that address the concrete needs and values of human beings in diverse circumstances” (1990 p 20). Part of the thesis activity will be to un-wrap the various definitions and directions and try to distil some type of core inventory of characteristics, activities or sensibilities of design thinking.

Design and management

Of key interest in this thesis is the management dimension. However, the available literature on the linkages between design thinking and management mostly centres on the private sector. In 2009, several authors published works on business-oriented applications of design. Brown (2009) addresses how design thinking can drive innovation in the social sector, although not specifically in the public domain. Verganti (2009), and Martin (2007, 2009) consider the role of business leaders in engaging in design thinking and ‘design-driven innovation’, applying practices of ‘proposing meaning’ and ‘integrative thinking’. Verganti points out that from a management perspective, design is essentially about “making sense of things” (2009 p. 21). Boland & Collopy (2004) also frame the potential of design in management in their edited volume ‘Managing as Designing’. Notably, they emphasise how design thinking is not uniquely a (private sector) business discipline, but a management discipline. Boland & Collopy suggest that “Managers, as designers, are thrown into situations that are not of their own making yet for which they are responsible to produce a desired outcome. They operate in a problem space with no firm basis for judging one solution as superior to another, and still they must proceed.” (Boland & Collopy, 2004 p.17). Their edited volume explores what a design vocabulary, a design ‘attitude’, and design practice might bring to the management profession.

One attempt to capture the potential of design for public sector renewal was offered by the UK think tank Demos in the book *The Journey to the Interface: How Service Design can Connect Users to Public Sector Reform* (Parker & Heapy, 2006). Likewise, Bate & Robert (2007) explore how the service design projects

undertaken by the NHS Institute generate different narratives in health institutions. They show that *experience-based design* in health care has helped generate new patient-centric innovations, improving service experience and health outcomes. In an assessment by Preston in the Boland & Collopy volume, applying design to taxation policy-making helped the Australian Taxation Office clarify its policy intent much more systematically, while realising that “(...) our understanding of both user needs and our product range and strategy was even more sorely deficient”. We thus get a sense that public managers may benefit from design thinking; perhaps, even that the manager, as a design leader, could become “the catalyst for transformation” (Jenkins, 2008). However we are not much smarter about how it works – and in particularly how the context of public organisations may play a role.

The public sector context

The role of the public sector context is likely to be significant for the thesis; I will touch briefly on the potential implications here. The key characteristics of public bureaucracy and modern governance is the context within which design thinking and innovation leadership must be embedded, if it is to have relevance and impact in government. However, as James Q. Wilson (1989) has pointed out, “High-level government executives are pre-occupied with maintaining their agencies in a complex, conflict-ridden, and unpredictable political environment (...)”. In my most recent book (Bason, 2010) I argue that there are a range of significant barriers to innovation in government at numerous levels: The political context (which means that objectives are usually politically given and prone to significant change outside of the public manager’s control); the lack of regular market competition and multiple ‘bottom lines’, making it difficult to measure and assess success or failure; limited ability to make and shape long-term strategy; hierarchical and bureaucratic organisational structures; limited and often inefficient leveraging of new information technology; and (too) homogenous a composition of managers and staff, just to name a few (see also Osborne and Brown, 2005 and van Wart, 2008).

Introducing design thinking – and, more generally, innovation – to the public sector is thus likely to be a challenge (Bate & Robert, 2007; Eggers & Singh, 2009). Lawyers, economists and political scientists are expert analysts but rarely comfortable with more interpretive thinking styles. Emotion and intuition is hardly recognised as a basis for decision-making. Meanwhile, as Henry Mintzberg (1990) has pointedly argued, ‘judgement’ is, at the end of the day, what managers have to rely on, since, as Boland & Collopy (1994) state, the traditional notion of decision-making as the process of choosing between a given set of alternatives is untenable. Given the unprecedented challenges many governments around the world are facing, public bureaucracies may very well have to alter how they deal with the notions surrounding traditional ‘economic man’ theories of decision-making, which prescribe a sequence of intelligence, design and choice – in that order.

My proposition in this thesis is thus that there seems to be an opportunity to explore how design thinking is applied in government organisations, and what it means: what is it about design thinking that may be useful to public managers; and how do they perhaps make use of it?

Research questions

The thesis will address the following two key research questions and associated sub-themes:

1. What characterises design thinking approaches to innovation in government?

- a. What is design thinking – how might it be conceptualised? What are its intended causal "mechanisms" (explicit or implicit) for bringing about favourable outcomes?
- b. How is a "design thinking approach" different from other frameworks for improving government outcomes (e.g., Six Sigma, lean management, balanced scorecard)
- c. Within the public context, what does "design thinking" mean in practice? What are people doing? What tools, techniques and methods usually accompany government efforts at "design thinking"?

2. How do public managers use design thinking?

- a. How do public managers experience design thinking approaches as they play out in the context of politically governed organizations?
- b. How does the design thinking process, implicitly or explicitly, enable public managers to realise desired, innovative outcomes?
- c. What conditions, especially conditions particular to the government context, influence or constrain how these approaches unfold?

A number of subsequent and (also) highly relevant additional questions could flow from these two core research questions. For instance: To what extent are the design thinking approaches any more effective at bringing about the desired, innovative outcomes than other approaches would have been? Under what conditions are they most effective? What are the implications for the necessary skills and competencies of public managers? How might design thinking become a core innovation discipline in government? These are all extremely relevant questions; however, as a point of departure they are considered beyond the scope of the thesis.

The logic of the two core research questions might unfold, in practical terms, in a writing process that flows as follows: First, "conceptualising design thinking approaches for government". Second, "characteristics of applied design thinking in public organisations". Third, "design thinking as driver of innovation for public managers". It is envisaged that these research themes may constitute a rough platform for each of the 3-4 academic papers that will constitute the bulk of the Ph.D, which I tentatively suggest will be paper-based as opposed to a monography. The papers will be 'bracketed' by introduction, methodology, summary and research perspectives.

Theoretical lens: Interpreting the significance of design thinking for public managers

In order to explore the potential of design thinking for enabling public managers to drive innovation in government, the essential theme in this thesis is *the significance of the application of design thinking approaches for public managers in their efforts to achieve desired change*.

This theme highlights my key interest in capturing “what happens”, and “what does it mean?”, rather than exploring “is this theory true?” I am therefore not proposing to identify a certain theory or model in order to establish a testable set of hypotheses, but rather, as one of my thesis advisers has suggested, develop a set of glasses for looking through and being able to see surprises. This emphasis points to the need for a theoretical lens that can help me as a researcher capture how processes of applying key elements of design thinking within public organisations is in fact experienced by public managers.

In the following I consider how the field of sensemaking might be a useful avenue to pursue as a relevant theoretical lens as my vantage point.

Making sense of design thinking

How might one for instance capture whether, as a result of design thinking approaches, a *shift* of some kind occurs for the managers, perhaps allowing them to *frame* problems or opportunities differently, maybe allowing them to *act* differently, allowing them to *spur different behaviour* within their organisations, or even allowing them to reach different decisions on which policies or services to pursue, and how? How might one in fact find out whether design thinking approaches impacts how managers interpret and *make sense* of the challenges they are facing, and of the opportunities they have for addressing them? To what extent are the processes and outcomes of design thinking made meaningful by public managers? What kinds of stories or narratives arise from their experience?

Weick (2001) has suggested that interpretation in organizations is the “process of translating events and developing shared understanding and conceptual schemes among members of upper management.” It seems that such an understanding of interpretation might be useful in unwrapping the potential significance of design approaches for exactly those levels of management. My suggested analytical strategy is thus to draw broadly on the literature on sensemaking. As Weick (1995) points out, central questions in the study of sensemaking is how active agents such as public managers construct what they construct, why, and with what effects. Or, as Meryl Lewis (1980) has proposed, sensemaking is a thinking process that uses retrospective accounts to explain surprises. So, to the extent that the application of design thinking approaches generates ‘disruptions’, ‘new insights’, ‘enables transformations’ or even triggers ‘surprises’, how do public managers retrospectively make sense of such insight, and what does such making of sense imply? If we believe with Weick (2001 p. 255) that “almost every organizational activity or outcome is in some way contingent on interpretation”, and if we see innovation and change as such activities and outcomes, then understanding how interpretation and sensemaking is made by managers could perhaps establish the linkages between application of design approaches and innovation in public organisations.

To study sensemaking is to examine empirically themes such as identity, enactment, social contact, ongoing events, cues and plausibility (Weick 1995 p 3). In the following I will discuss the implications of the choice of sensemaking as theoretical lens for the study's methodology.

Methodology

Building on the above considerations of theoretical framework, this section considers the Ph.D.'s methodological approach. As should be clear, the role of theory will not be modelling or testing, but to help frame "what to look for", and thus to guide and assist the empirical research. I expect that sensemaking can provide a helpful set of lenses through which to interpret the empirical findings. However, I also wish to take an approach that is exactly open to surprises and to new implications flowing from how managers make sense of design thinking, and that enables the observation of how such processes of change actually unfold. In looking for change as shifts or alterations in the making of sense (and looking for consequences of such shifts), it seems useful to apply a definition of change as an observed difference in form, quality or state over time in an entity (van der Ven, 2010). In this thesis, it is thus the observed difference in the form, quality and state of sensemaking over time by public managers.

Weick (1995 p 172-173) suggests that in order to research sensemaking, principles such as the following must be considered: Preserving action situated in context; relying on what participants say and do; working in close to observe phenomena; participants define the work environment; findings are described as patterns rather than hypotheses; explanations are tested against common sense and plausibility; emphasis on density of information and vividness of meaning; focus on small number of cases; choice of settings from accessibility viewpoint rather than representativity; and finally, employing methodological tactics that allow the researcher to "deal with meanings rather than frequency counts".

As van der Ven (2007 p. 154) has suggested, such principles points to an approach that is more characterised as a *process model* of research which helps develop a plausible story that enables the interpretation of meaning in relation to particular experiences and/or events. Since my interest is in the significance of the introduction of certain activities and thus processes, this seems to be a logical match. It implies that my empirical interest should be in the intentional actions of public managers in and around various events and settings associated with design thinking approaches.

I therefore propose that the thesis, in broad terms, takes its methodological inspiration from fields such as symbolic interactionism, pragmatism and which is inspired by grounded research. This implies amongst other things a focus on exploration, discovery, qualitative and idiographic research, empathy, judgement, social action and interaction, meanings, cognition, emotion, closeness to the empirical material and successive induction (Alvesson & Skjöldberg, 2000).

Case research and sampling strategy

The case study approach seems well suited to capture the type of empirical data that the theoretical lens calls for (Eisenhardt, 1989; Yin, 1989). Following the point above of pursuing a process model of research, Andrew van der Ven (2007 p 178) emphasizes that such descriptive revelatory case studies have the potential for making important contributions to advancing scientific and professional practice.

Cases allow for exploring how events unfold, and for capturing rich data that can be analysed, interpreted, synthesised and understood in terms of causal mechanisms. Thus, the research will be highly empirical and qualitative, focusing on extracting emerging theory from case study research inductively (Eisenhardt, 1989) and abductively (van der Ven, 2007 p. 179). The approach will attempt to take classes of observations apart and synthesise them into new meanings (Stake, 1995). The purpose of the process approach to the case research would then be to build *process theory*: Explanations of an observed progression of change events in terms of generating mechanisms that cause events to happen in the world and the circumstances when they operate (Tsoukas, 1989). In the context of the thesis this, I expect, will imply a largely teleological take on organisational change, emphasizing states and processes such as dissatisfaction, search/interaction (for solutions), setting/envisioning goals, and implementing (van der Ven, 2007).

The overall case approach in the study will be to identify and study individual public managers who have had key responsibility for, or the opportunity of, utilising design thinking to address certain problems, opportunities or to create one or more new solutions or actions within public policies or services. The process perspective implies that the case sample should not be very large; however, as a point of departure my interest will be to include a sufficient number of cases to identify emerging patterns *across* different contexts, settings and circumstances such as policy field, type of innovation challenge, type of organisation (department, agency, municipality), political and national culture, and geography.

To identify an overall sample of managers who have utilised “design thinking approaches” within the public sector in recent years, and which might be included in the research, I suggest that I use multiple resources, building on my own unique vantage point in MindLab:

- *MindLab* – the organisation I run – and its parent ministries of *Economic and Business Affairs*, *Taxation* and *Employment*, which have worked actively with applying design principles to public sector innovation projects for the last nine years, and which continuously offers potentially interesting empirical material.
- *The design community*, including organisations such as design councils, design industry associations, leading service design firms, design schools and academic research institutions.
- *Government organisations*, such as local government associations, national ministries and agencies in the relevant countries.
- *Innovation and design researchers* at a range of institutions, centres and think tanks in the countries involved in the study.

To address part 1) of my research question, the unit of analysis will be the public sector design project or activity within a governmental organisation. In addressing part 2), the unit of analysis will shift to one or more individual public managers who have been formally responsible for/participating in the process and results in question.

I propose a case sampling strategy that involves innovation type and national context/geography:

Policy vs. service innovation: My interest is both in the broad-reaching policy design where, at the societal (macro) level, decision-makers are attempting to conceive, plan and realise approaches to tackling societal

challenges. For instance, it could be the creation of a new government strategy to combat climate change, a new policy to boost private sector productivity and innovation, or a major new national or regional initiative in health or social care. I am also interested in the other end of the policy-service spectrum: The highly specific (micro-level) design of a service process and its detailed individual interactions, including delivery mechanisms, human resources, technology etc. It could for instance be patient treatment and service processes in a hospital. The benefit of the policy vs. service distinction will essentially be that it will help clarify whether and how design thinking seems to be most applicable to overall, strategic innovation processes or to more operational solutions, or both. The dimensions are also likely to imply that I will be looking at both state government (policy) and at regional or local government (service).

National context. Denmark will be the main geographical research context. However, in order to give the Ph.D. a global perspective, and to control for potentially important differences between countries, political systems and administrative cultures *within the Western cultural sphere*, I further propose to examine design thinking projects and their managers in public sector organisations in 2-3 countries beyond Denmark. Building on my current professional network and knowledge of state of the art of public sector innovation globally, it seems that the United Kingdom, Australia and New Zealand would be the most relevant countries to include. The emphasis here is primarily to identify potential variance across countries, to determine whether or not the significance of design thinking approaches is just a national or ‘cultural’ phenomenon. Another benefit of including other countries is to ensure that a sufficient diverse and mature field of types of policy and service “design thinking projects” can in fact be found in this rapidly emerging field, going beyond my personal surroundings at MindLab. From a practical perspective it would finally make sense that at least one of the countries coincides with the location of (some) of my co-advisers (UK and US).

Research activities

The state of play for the Ph.D. research is that a pre-study has largely been carried out, involving:

- a first study of relevant academic papers and literature, focusing firstly on design and innovation, secondly on theoretical lens and methodology, thirdly on public management
- the identification of international co-adviser(s)
- a screening of potential projects and public managers for empirical research, including explorative interviews with public managers (eight interviews have been conducted)
- dissemination of the ideas and approaches underlying the Ph.D. in a wide range of national and international contexts, partly in connection with the publication of my latest book (Bason, 2010)
- completion of a 5-day Ph.D. course at Copenhagen Business School.

Data gathering protocol

The core research activity will be to examine in-depth a number of design thinking processes, and how the responsible public managers have (if at all) used the project processes and outcomes in their efforts to drive innovation and achieve desired change. The exact number of cases studied will depend on the degree to which the qualitative research reaches ‘saturation’, and the value of adding additional cases begins to diminish significantly. A key balance to strike in this context will be the between breadth (multiple cases allowing for comparison and pattern recognition) and depth (the ability to capture the richness and social dynamics of unfolding processes vis-a-vis the managers I wish to study).

MindLab, the public organisation I currently lead, will serve as a significant research platform. MindLab continuously interacts with public managers across three major ministries, including some 14 agencies, and there is therefore significant potential to access empirical cases. For instance, MindLab in 2009 conducted internal qualitative research in collaboration with professor John Bessant of Exeter University (UK) to better understand how public managers initiated change in the ministries. This research has helped spur some of my interest in the topic, and the tentative data points to a number of interesting avenues for further study. I expect that 2-3 of the potential cases will be derived from MindLab's immediate environment (department and agency level). In addition, I will identify an additional 4-6 cases in at least two of the countries mentioned above.

I envision that in each country I will examine at least one design thinking process and public manager placed within a (macro) policy innovation setting (central department) and one public manager who is more closely engaged in (micro) service design. I will, based on early screening interviews, seek to identify innovations that are considered 'radical' or 'breakthrough' and innovations that are considered 'incremental' or 'improvements'. The table below illustrates the approach.

Table 1: Case approach

	Denmark	Countries 1+2	Total
Policy innovation	1-2	2-3	3-5
Service innovation	1-2	2-3	3-5
Total	2-4	4-6	6-10

Data collection within each case study will be based on *triangulation* (Yin, 1989; Eisenhardt, 1989). This implies that in addition to the primary qualitative data collection I will include the collection of relevant quantitative data (for instance data on programme performance, such as productivity figures, user satisfaction surveys and outcome data), and of other secondary data (such as internal research, consulting reports, policy documents, etc). However, it is important to underline that it will be the primary qualitative data collection that I expect will constitute the vast bulk of the data used for the purpose of addressing the research questions.

The following table shows the current potential cases I have identified. They represent a balance between service and policy design, geographical distribution and content topics [in brackets]. Note that the first four cases are carried out by project managers at MindLab, the organisation I currently lead.

Table 2: Case selection (tentative)

	Service/organization design	Policy/strategy
DK (MindLab)	<p>1. National Board of Industrial Injuries: Design for case management and organisational strategy [work injury] Merete Roos, Head of Division, Board of Industrial Injuries Anne Lind Madsen, CEO, Board of Industrial Injuries</p> <p>2. Ministry of Taxation: Online tax service redesign [tax services] TAX & youth, Natascha Dexters, head of division, Tax Authority</p>	<p>3. Danish Commerce and Companies Agency [enterprise policy] Service & impact, Sune Knudsen, head of division,</p> <p>4. Attracting foreign talent [employment and innovation policy] (Economic & Business Affairs + other)</p>
UK	<p>5. National Health Service Institute for Innovation & Improvement [health care] Lynn Maher, deputy director</p> <p>6. Lewisham municipality and UK Design Council: Design coaching for public managers [public infrastructure/environment] Sean Miller, design strategist Marianne Guldbrandsen, programme manager</p>	
New Zealand		<p>7. Department of Internal Affairs [identity policy/services] Andrea Gray, Manager Integrity & Identity Programmes; New Zealand Government Advanced Leadership Programme</p>
Australia	<p>8. Family by Family: Redesign of family and community services Carolyn Barnes, manager, State government of South Australia Brenton Caffin, Director, Australian Centre for Social Innovation</p>	<p>9. Australian Taxation Office: Tax system redesign [tax policy] Julian Jennings, senior consultant, Second Road Nina Terrey, design director, ThinkPlace</p>

Reflections on case research approach

There are a number of both methodological and logistical implications of the case selection as proposed here. To put it in context, it should be emphasised that my overall approach to the thesis builds on Andrew van der Ven’s notion of engaged scholarship as “a participatory form of research for obtaining different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems” (2007 p 9). This not only means that I will engage broadly with a diverse academic field (in part reflected by my choice of three co-advisers), and with the practitioners involved in the specific case studies, but also that I will engage with the stakeholders (institutional advisers) of my own organisations, and a wider circle of professionals in government, private and third sector organisations that have experience and insight with which to contribute.

As to methodology, there obviously is the question of how I will handle research into processes that are driven, at least to some extent, by the very organisation that I lead. Mostly, my particular vantage point and previous work in the field ought to be an advantage. Mats Alvesson has made the argument that such self-

ethnography has several benefits. “One rationale for self-ethnography concerns its capacity to come up with novel and interesting empirical material. The insider is, potentially, better positioned than the one of an outside ethnographer to reveal ‘the true story’, although position alone is insufficient to realize the potential.” (Alvesson, 2003). Likewise, van der Ven (2007 p 177) points out that in revelatory case designs (as this one), “intimate familiarity with the phenomenon from qualitatively rich case studies” is needed to engage in abductive reasoning, which in turn can constitute the first steps in building new theory. For the studies associated with MindLab’s work, and arguably the other cases as well, this may well be the case.

However, some warnings are probably also in place,. Particularly when it comes to ethnography in or close to one’s own organisation, as Alvesson has pointed out, the balance to be struck is between closeness and distance. “The challenge of ethnography, and of most qualitative work, is to be close and avoid closure.” (2003, p. 190). Coming up close to one’s own organisation’s efforts, Alvesson emphasises how ethnographer’s focus shifts. While the conventional researcher (with an anthropological orientation) may ask “What in hell do *they* think they are up to?” the self-ethnographer must ask “What in hell do *we* think we are up to?” (ibid.).

Another issue that must be dealt with is that, although I am in a relatively unique position in terms of access to both my own environment and other relevant case settings, public managers are (as their private sector peers) notoriously busy and not just in meetings but entirely out of the office. So, while the researcher is there, the managers being studied may not be. “Modern management occurs in a net of fragmented, multiple contexts, through multitudes of kaleidoscopic movements. Organizing happens in many places at once, and organizers move around quickly and frequently” (Czarniawska, 2004, 2007).

Data collection approaches

Flowing from the above theoretical and methodological considerations, my research will rely on an assembly of methodologies which will be selected pragmatically “in the service of gaining access to the situated generation of some kind of explanation for unexpected interruptions” (Weick, 1995 p. 173) – interruptions being whatever interactions, events or insights that the application of design thinking approaches trigger for public managers. As Barbara Czarniawska has stated, “...fieldwork knows no “method”; it relies on pragmatism, luck, and moral sensibility. The knowledge of a variety of techniques, and the will to innovate rather than follow static prescriptions of method books, remain central to the craft of fieldwork, as to all others.” (2008 p. 10). This understanding of qualitative case research as an art as much as a practice, will guide my approach.

I thus suggest that the primary qualitative research into the projects and into the experience of each of the selected public managers is carried out through the following types of qualitative interview and observation techniques, utilising a mix:

Contextual interview. This interview type takes place in the setting (context) people actually live or work in. The interview guide is quite open, addressing a broad thematic level rather than specific questions. This allows for a broader and richer dialogue with the interviewee. Finally, the researcher is not only interested in what the interviewee has to say, but also in the context and resources surrounding the person in the real-life

setting. The contextual interview approach will involve the collection of all relevant documents and information concerning the specific innovation process in question.

Retrospective review. This interview type seeks to uncover a chronological narrative about an event or series of events, which will be of particular interest in understanding the manager's role in the innovation process. The interviewee is asked to tell the story, re-creating the dynamic of the past. The researcher probes by asking 'what happened then?' or 'what happened before that?'. As Czarniawska (2008) has emphasised, using work-life interviews, it is critical being careful not to interpret them as the report of real life events, but as ways of narrating lives. The value of this form of interviewing is that it enables the researcher to discover surprising transitions or breaks in a series of events that might be hard to capture without such an open format. The interview can also uncover how events triggered subjective experiences and emotions, for instance by asking 'when that happened, how did it make you feel?'. In addition to conducting interviews with a total of up to 12 selected managers, I expect to interview key individuals who have been part of the innovation processes in question. For some cases this would imply 2-4 additional interviews, for instance with a more senior manager, with a participating consultant, or with members of the development team.

Observation. A further approach to undertake to harvest data on on-going processes will be participant observation and /or shadowing of meetings, seminars and workshops. This will likely be easier to undertake on the Danish (MindLab) case studies due to geographical closeness; however, I expect to undertake several research visits to the other countries as well, and the planning of these visits will to the extent possible be made to coincide with relevant and potentially interesting meetings, seminars etc.

Personal diaries and/or cultural probes. A final approach that I believe could be useful is the utilisation of personal diaries or logs, where I could ask the involved public managers to note down their activities and experience of events on a regular basis over a certain period of time, perhaps prompted by questions by me. A more advanced variant could be to expand the approach to more of a cultural probe technique, asking managers to for instance utilise photography to capture events.

Documents. Obviously I will collect and include various key documents and texts that help set the context, objectives and activities of the design thinking approaches and their organisational and political contexts; however this will serve more as background material than as key research evidence.

Supplementary survey?

Whether it will make sense, for instance towards the end of the research, to include some type of simple, but broad, quantitative survey to try to validate the general experience by public managers of design thinking approaches is an open question. If by, say, 2012, it appears that perhaps a few hundred identifiable public managers have some sort of experience in the field, it might be an interesting opportunity to validate the key findings from the qualitative work. However, I will leave this to be determined at a much later stage.

Analysis

The analysis of the data material will focus both on a within-case perspective, to ensure the proper triangulation of data and identification of key findings; and a cross-case perspective where I will search for patterns that might enlighten, validate or challenge my key research questions, using induction and abductive reasoning. I will relate the emerging patterns and theoretical implications with existing literature in the

sensemaking field, on the path to building more final answers to the two overall research questions – and to proposing new avenues for research.

As mentioned above I suggest that the Ph.D. is published not as a thesis, but as a series of three or perhaps four papers. Therefore the analysis will be carried out not as one prolonged phase, but rather as shorter, iterative, focused phases which can address particular interesting research themes as they emerge.

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