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The twin faces of public sector design

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Design thinking has become a popular approach for governments around the world seeking to address complex governance challenges. It offers novel techniques and speaks to broader questions of who governs, how they govern, and the limits of rational instrumentalism in policy making. Juxtaposing design thinking with an older tradition of policy design, this article offers the first critical analysis of the application of design thinking to policy making. It argues that design thinking does not sufficiently account for the political and organizational contexts of policy work. Design thinking also errs in universally privileging one particular policy style over others, and fails to account for the reality of policy mixes. Despite these deficiencies, it is argued that design thinking can inform and enrich governance by helping policy designers produce more adaptable designs, better appreciate the behavioral dynamics of public sector design, and leverage networked approaches to social problem solving.

1 | INTRODUCTION

Design is a central concern of governance from the design of public institutions to that of programs and services. Since its emergence in the 1950s, the concept of policy design specifically has been contested, reimagined, ignored, and revived. In particular, enthusiasm for policy design as an approach to policy and governance has ebbed and flowed with attacks and defenses of the rational-instrumental logic that underpins it, and as the predominance of government within the enterprise of governing has been challenged by alternative modes of governance (Howlett, 2009). Today, a second form of policy design, "design thinking"—so named by its proponents—increasingly calls into question established governance institutions and practices. It claims to offer an alternative style of cognitive processing and a different approach to problem definition and resolution than that currently employed within today's governments. Some design thinkers have gone so far as to advocate for the overthrow of traditional modes of policy and governance in favor of this purportedly new and superior approach to social problem solving (Bason, 2014, p. 3; 2017).

Design thinking must be taken seriously not only by those strictly interested in policy design, but also by those seized by broader governance questions. Contrary to what design thinking caricatures as

the more "closed" traditional design processes—led by government actors, typically within designated policy or program specific "silos," and characterized by long-term, pre-implementation planning processes—design thinking privileges interdisciplinarity, systems thinking, user centrism, regular iteration and experimentation, creativity and risk taking, and "co" modes of doing such as co-production and co-delivery (Christiansen, 2015; Mulgan, 2014; Sanders & Stappers, 2008). It is thus well situated to inform active debates on the role of state and non-state actors and networks in governance (Capano, Howlett, & Ramesh, 2015). Design thinking also has tangible institutional manifestations that beg for scholarly scrutiny, evident in the physical design units being established within governments, such as innovation labs, design hubs, and digital transformation offices. Outside these defined spaces, design thinking is also sweeping through governments around the world as policy makers enthusiastically adopt its practices, prioritizing user centeredness and prototyping in policy making (Bellafontaine, 2013; Carstensen & Bason, 2012; Clarke & Craft, 2017).

Despite its popular global uptake, there has been little critical appraisal of design thinking from a public governance perspective. For instance, many applications are virtually bereft of the methodological, analytical, empirical, and normative considerations of the established policy design literature (see, e.g., Bason, 2014). Similar to the suite of New Public Management reforms, design thinking does not originate within the public sector and thus it brings with it principles and practices that are, as the article argues, not always fit for purpose. Specifically, the following analysis identifies four policy making dynamics that design thinking fails to fully address: (a) the political context within which designs unfold, and that complicate simplistic applications of strict "user centrism" as derived from private sector experiences; (b) the human, financial, and organizational resources needed to support its practices; (c) the range of policy styles and related governance arrangements that may be appropriate to a given policy sector, jurisdiction, and policy problem; and (d) the need for designs to be interoperable within complex policy mixes (multiple policies, policy aims, and policy instruments operating concurrently).

A critical appraisal is however also sorely needed of the mainstream policy and governance community's lack of engagement with design thinking approaches and methods (Mintrom & Luetjens, 2016, but see Considine, 2012). Why are governments around the globe so keen to establish these design spaces and apply design thinking practices? What governance shortcomings does design thinking seemingly fulfill? The article contends that while not a wholesale replacement of policy design, design thinking offers one vehicle by which policy designers might produce more adaptable designs, may overcome their own bounded rationality by exposing themselves to different data and alternative perspectives, may better appreciate the needs and behaviors of users, and may better capitalize on collaborative, systems-based approaches to policy work.

The article's juxtaposition of these twin faces of design reveals what we term the broader category of "public sector design." This captures the growing suite of design logics, traditions, and practices that are currently being applied to matters of governance. The article identifies design thinking's current and potential contributions to public sector design, but also provides an as-of-yet absent critique of design thinking's applicability to policy processes. In doing so, the article serves as a cautionary wake-up call to policy makers enthusiastically adopting design thinking without adequate attention to the valuable lessons that a traditional policy design lens continues to offer.

2 | THE FIRST FACE: POLICY DESIGN AND THE RISE OF THE "NEW DESIGN ORIENTATION"

Policy design is the deliberate attempt to define policy goals and consciously connect them to policy instruments intended to reach those goals (Howlett, 2011). Comprehensive reviews tracking the history of policy design are available elsewhere and need not be restated here (see Bobrow, 2006). Three

points are however worth emphasizing given that they are central touchstones to the so-called "new design orientation" currently at the vanguard of mainstream policy design studies (see Howlett, Mukherjee, & Woo, 2015), and given that in certain cases they are also integral to emerging design thinking approaches assessed in this article.

The first is the purposeful or *conscious* nature of policy design as an activity that aims to deliberately improve policy making outcomes (Linders & Peters, 1990). Policy design has always been tightly coupled with notions of instrumental rationality. While early design scholars conceived of decision making as a rational (knowledge and logic driven) and instrumental (linking solutions to problems to achieve predefined policy goals) process, policy design studies have since acknowledged criticisms of rational decision making, mirroring developments in the policy sciences and cognate disciplines. This in turn yielded greater recognition of a broader spectrum of policy design and nondesign possibilities, and inspired a contextual orientation in policy design (Clarke & Craft, 2017; May, 2012; Torgerson, 1985). This orientation acknowledges that in practice a range of contextual factors and related political, cognitive, and organizational constraints shape how problems are defined and how instruments are identified to address those problems.[1] Scholars also acknowledge the political realities facing designers, realities that might in some instances ensure that policy design is not a strictly knowledge and logic-driven venture but rather is marked by ideological or partisan objectives (Craft & Wilder, 2017; Linders & Peters, 1989).

A second key touchstone of today's policy design scholarship is its emphasis on the types, selection, and effects of policy instruments (Howlett, 2011; Woodside, 1986). Early efforts at categorizing and typologizing the types of policy instruments gave way in the 1970s and 1980s to attempts to link implementation failures to policy instruments, to refine instrument taxonomies, and develop instrument selection theories (Hood, 1986; May, 2012). The place of instruments in policy design became so central that by the late 1980s Salamon would famously argue that policy tools had become an approach to policy studies in its own right (Salamon, 1989). Behavioral approaches were integrated into policy design in the 1990s with researchers identifying the embedded value choices associated with particular instruments and their selection (Schneider & Ingram, 1990, 1994; Weaver, 2015). These behavioral approaches to the designer were extended to treatments of the "targets" of designs, with scholars acknowledging that policy instruments did not always perform in the same ways, but rather that the groups and individuals for whom designs were intended responded differently to policy instruments, necessitating differentiated policy designs tailored to particular targets (versus "one-size-fits-all" approaches).

In addition, attention shifted to recognize that policy instruments do not operate in isolation, but rather that designs often consist of multiple policy instruments and policy goals interacting over time in "policy mixes" (Gunningham & Sinclair, 1999). This focus on mixes emerged in large measure as a response to the need for policy designs that attended to shifting governance arrangements characterized by multilevel governance contexts and networks (Daugbjerg & Swinbank 2016; Del Río, 2014; Matti, Consoli, & Uyarra, 2016). Forming another central preoccupation of the new design orientation, policy designers began to assess these mixes by considering their "consistency" (the ability of multiple policy instruments to reinforce rather than undermine each other in the pursuit of individual policy goals), their "coherence" (or the ability of multiple policy goals to co-exist with each other in a logical fashion), and their "congruence" (or the ability of multiple goals and instruments to work together in a unidirectional or mutually supportive fashion) within a given policy design (Howlett & Rayner, 2007). This led to research probing how policy mixes themselves evolved over time, as well as how adaptive and agile policy designs are constructed, policy feedback effects generated or managed, and how actors may be able to "patch" and "package" existing designs, all to meet changing circumstances or policy goals (Howlett & Rayner, 2007; Jordan & Matt, 2014; Kay, 2007).

A third central feature of policy design is its focus on the actors involved in design. The rise of globalization in the late 1990s and 2000s, and the argued shift from "government to governance" (variously labeled "shared," "network," or "collaborative" governance), saw some label state orchestrated policy design as a moot enterprise (Howlett, 2014). In the wake of renewed interest in the role of the state as policy actor (vs. governance's focus on networks and nongovernmental policy actors) the new design orientation has since revived the policy design tradition by embracing the diversity of potential designers and design inputs and spaces that now exist inside and outside of government proper (Craft & Halligan, 2017; Jordan & Turnpenny, 2015). From this perspective, policy design is acknowledged to now be a pluralistic venture rather than a strictly state-led affair, but one in which governments often still do, and in some cases are best placed to, take the lead by either "steering" networks of non-state actors (Osborne & Gaebler, 1992) or taking on certain design activities on their own. With this work, policy design scholarship responded to a larger public management literature focused on the evolving role of the state, new forms of citizen and third sector engagement, privatization, and co-production, typically captured in discussions on the shift from Progressive Public Administration, to New Public Management to Network Governance/Public Value Management (Dunleavy & Hood, 1994; Stoker, 2006).

The new design orientation thus integrates the above three touchstones of policy design into a coherent whole, focusing on the purposeful design of public policy that accounts for the contextual constraints on design, the behavioral dynamics of designers selecting policy instruments and the targets to whom those instruments are directed, the interaction of policy mixes consisting of multiple policy tools and goals operating at the same time, and the multiplicity of state and nonstate actors involved in the act of designing policy. Alongside this more established and fulsome literature, a second approach to policy making adopting the "design" label has emerged in recent years: design thinking.

3 | DESIGN THINKING: THE SECOND FACE OF PUBLIC SECTOR DESIGN

Design thinking has primarily developed outside the field of policy studies, originating in the discipline of design itself, which grew from the late 1960s onward through journals such as *Design Studies* and *Design Issues*. Here, the discipline focused on "traditional" targets of design, such as products, architecture, and eventually services and processes. As of the mid 1980s, management scholars began to apply design thinking to business management practices, often espousing its benefits in nonscholarly, popular business publications, such as the *Harvard Business Review* and in certain scholarly publications, including *Design Management Review* (Johansson-Sköldberg, Woodilla, & Çetinkaya, 2013). Business schools began to tie design thinking to innovation, urging managers to adopt a "design attitude" (Kimbell, 2010). Within both the traditional discipline of design and business management field, a common set of characteristics is typically proposed to describe design thinking.

First, while in some cases there remains ambiguity over the *target* of design (Mulgan, 2014), contemporary design thinking generally agrees with Herbert Simon's early assertion that design need not exclusively focus on the creation of *products* (e.g., smartphones, furniture, buildings; Simon, 1969). Rather, design thinking can also be applied to strategies, organizations, systems, services, and policies (Bason, 2010, p. 13). This more expansive approach to design can see designers and design firms aiming for social change (Mulgan, 2014) and has led Sanders and Stappers (2008, p. 7) to contrast "traditional" and "emerging design principles," with the former focused on design of "products," and the latter emphasizing "designing for a purpose."

Second, design thinking advocates for a particular style of cognitive processing in which "the analytical-logical mindset that characterizes most large organizations and professional bureaucracies" is balanced with a "more interpretative, intuitive mindset that characterizes the arts and creative

professions" (Bason, 2010, p. 138). Typically associated with the problem-solving methods that underpin policy sciences, the analytical-logical mindset asks the thinker to split complex phenomena into manageable pieces that can be assessed rationally, logically, and through deductive reasoning. This approach rests on the act of "thinking things through" and is generally reliant on a single or limited disciplinary lens(es) (Bason, 2010, p. 139). In contrast, the interpretative-intuitive style of thinking included in design thinking also prioritizes synthesis—bringing complex phenomenon together and assessing them as a whole—moving the thinker to adopt systems-based views of problems and drawing on an interdisciplinary, multiperspectival lens.

Further, a prominent feature of this thinking style is user engagement, wherein the perspectives of stakeholders and the experiences of those that use and/or are affected by a product, process, strategy, service, and so on are primary inputs to their design. From the 1970s onward, a Northern European–led approach to design thinking extended this user focus, framing users as participatory partners in design, engaged in an act of co-creation *with the designer* (versus the designer as the principal actor leading a design *for the user*; Sanders & Stappers, 2008). With this approach, design thinking has come to prioritize empathy for the user as a key characteristic of the designer (Mintrom & Luetjens, 2016).

User engagement is a component of two other important features of design thinking: early open-ended exploration of problems and solutions, and iterative prototyping. The first of these—early open-ended exploration of problems and solutions—sees designers spend considerable time on what Sanders and Stappers (2008) refer to as the "fuzzy front end" of design. This phase comprises:

> the many activities that take place in order to inform and inspire the exploration of open-ended questions such as "how can we improve the quality of life for people living with a chronic illness?", or "what is the next big thing in family leisure time?". The front end is often referred to as "fuzzy" because of the ambiguity and chaotic nature that characterize it. (Sanders & Stappers, 2008, pp. 6–7)

At this stage of thinking, designers rely in particular on the interpretative, systems-based, creative style of thinking to understand the problem, while embracing an uncertainty in which outputs are not set yet, and the deliverable of the design process is not clear. This form of problem exploration demands deep research into users, their context, and their lived experiences with services, organizations, processes, and products, and draws on a range of methodologies—many of which have a visual component (Mulgan, 2014)—including: ethnographic research, service journeys, behavioral insights, environmental scanning, participant observation, open-to-learning conversations, mapping, and sense making (Mintrom & Luetjens, 2016).

Bason (2010) explains that this early problem definition work then leads to a more traditional process of analysis, in which knowledge is structured into its various abstract components, followed by a return to the creative, intuitive, and interpretative act of synthesis. At this point the various components of the problem are considered holistically and a divergent range of possible solutions are generated, drawing on user experiences and a range of stakeholder perspectives and disciplines. This step is sometimes termed "ideation", see Figure 1. Once the set of possible solutions is defined, the designer prototypes and tests solutions, engaging users to identify which is optimal prior to wider implementation. Thus, this final stage calls the designer to "think through doing" in partnership with users, versus evaluating options without piloting them with users in practice (Bason, 2010, p. 139). What is more, as part of an iterative process, design thinking advocates that implemented solutions be continually refined and adjusted based on user feedback, existing in a sort of "evergreen" state. Figure 1 below depicts the various stages of the design thinking process as they are meant to unfold in practice, and illustrates the feedback loops and cyclical iteration at play in design thinking.

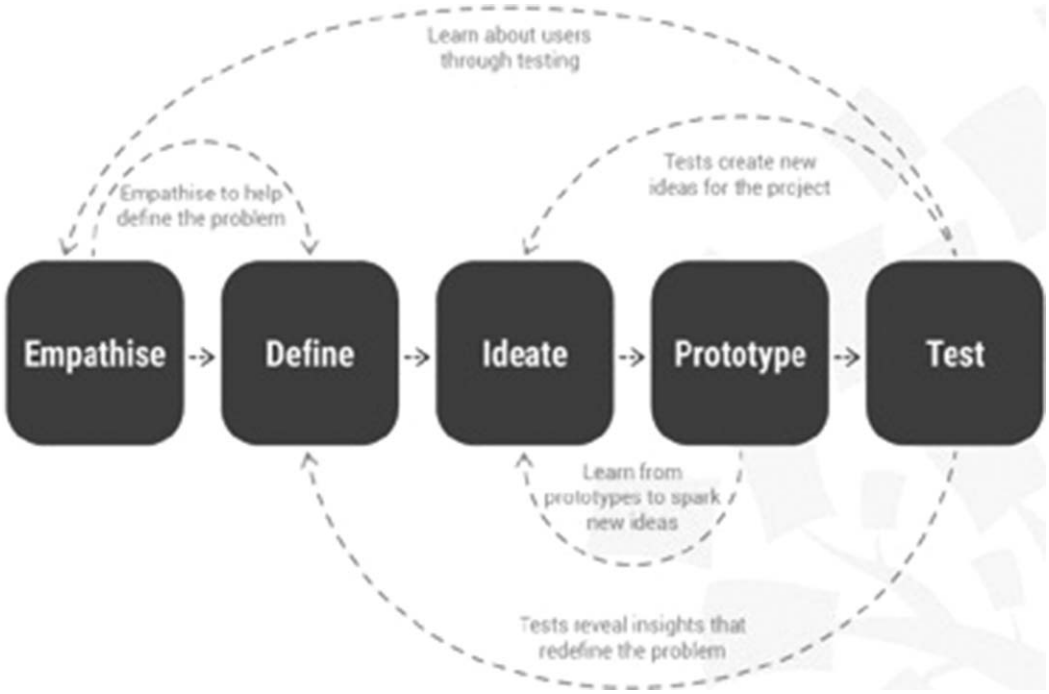

FIGURE 1 Five stages of the design thinking process

Source. Teo Yu Siang and interaction design foundation. Available under Creative Commons Licensing, CC BY-NC-SA 3.0. https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process

Design thinking has recently migrated into the public sector as an emerging field of practice, typically as part of innovation agendas and within specialized innovation labs and hubs that draw on design thinking and methodologies, and that are governed as public, quasi-public, and private organizations. In addition, these labs and hubs provide physical spaces for civil servants, stakeholders, and users to engage in design thinking (Bellafontaine, 2013; Tonurist, Kattel, & Lember, 2017). Denmark's MindLab is a cross-government unit that claims itself as the first innovation lab globally, and counted Christian Bason, leading design thinking advocate and author, as its director from 2007 to 2014. As MindLab describes its work: "MindLab is instrumental in helping the group of owners, key decision-makers and employees view their efforts from the outside-in, to see them from a citizen's perspective. We use this approach as a platform for co-creating better ideas" (MindLab, 2017).

The Government of Canada has introduced a series of innovation and design labs, in both central agencies (the Central Innovation Hub in Privy Council Office) and line departments (in Innovation, Science and Economic Development Canada, Employment and Social Development Canada, and Natural Resources Canada). Similarly, the Australian Public Service Innovation Action Plan (2011) led to the APS Design Lab, and the Australian Centre for Public Sector Design.

France's 27e Région dubs itself a "laboratory of public transformation" and explains that it:

> conducts action-research programs to test new innovation methods for designing public policy involving all public stakeholders. To this end, it mobilizes the capabilities of multi-disciplinary teams composed of designers, idea generators, and social scientists from many fields (ethnography, sociology, participant observation) and engages in ground-level actions (do-it-yourself projects, adult education actions, etc.). Both these approaches prioritize the concrete experience of users, civil servants and citizens to serve as the starting point for re-examining public policy. (La 27e Région, 2017)

The United Kingdom's National Health Service (NHS) created an Institute for Innovation and Improvement, which explains that it adopts "[t]he ebd approach (experience based design) . . . an exciting new way of bringing patients and staff together to share the role of improving care and redesigning services" (NHS Institute for Innovation and Improvement, 2013). The United Kingdom's Behavioural Insights Team, originally developed in the Prime Minister's Office and now managed as a social purpose company at arm's length from government, is not strictly an "innovation" or "design" lab, but it does draw on a methodology often applied in design thinking—behavioral insights—and emphasizes user engagement, prototyping, and experimentation with a view to "making public services more cost-effective and easier for citizens to use; improving outcomes by introducing a more realistic model of human behaviour to policy; and wherever possible, enabling people to make 'better choices for themselves'" (The Behavioural Insights Team, 2017). At the municipal level, Kent City Council developed the Social Innovation Lab for Kent (SILK). Aiming "to do policy different," as they describe their work, "The SILK Methodology provides creative and innovative ways to engage with people and approach projects, and enables a collective ownership and responsibility for project design, delivery and outcomes" (Social Innovation Lab for Kent, 2015).

Digital service transformation units have also provided an avenue for design thinking to enter today's governments. Borrowing the language of design thinking, these units prioritize user-centered design and adopt the iterative, data-driven design process behind today's digital success stories, and that accompany the shift in information technology (IT) management orthodoxy from "waterfall" approaches (long, internal development cycles, which engage users and test products only at the close of the development cycle) to "agile" development (defined by continual testing and evaluation throughout the development cycle, and early and frequent user engagement; Clarke, 2017; Rasmusson, n.d.). The United Kingdom's Government Digital Service (created in 2011 in response to widespread and high-cost digital service failures), explains: "We work in small, agile teams of developers, designers, content people and others. We build a minimum viable product quickly, then iterate wildly—always asking how we can make things better for users, who are at the center of everything we do" (Government Digital Service, 2015). Following the United Kingdom's lead, agile, user-driven digital service units have emerged across the globe, including the Canadian Digital Service, the Ontario Digital Service, the United States Digital Service and 18f (also in the United States), the Australian Digital Transformation Agency, and digital service teams driving New Zealand's Service Innovation agenda.

These are but a few examples of design thinking's recent uptake in the public sector. In each case, governments adopting design thinking claim that they are embracing new, disruptive, and superior approaches to policy design. But to what extent and in what ways does design thinking depart from, and improve upon, the traditional policy design approaches that these initiatives claim to be rejecting?

4 | COMPARING APPLES AND ORANGES OR MAKING FRUIT SALAD? POLICY DESIGN AND DESIGN THINKING

The twin faces of public sector design detailed above point to divergent emphases that accompany the respective approaches, but also to a shared logic that places each approach squarely within what this article terms the broader "public sector design" category. Fundamentally these two approaches share the same objective: to consciously and deliberately attain a public policy objective through applied problem solving. In this sense, both policy design and design thinking can be understood as adopting a common view of policy design as *noun*; each approach agrees on what a policy design (and, as a consequence), what nondesign looks like in practice, as an outcome of a design process. What is more, design thinking and the latest innovations in policy design, as captured in the new design orientation, agree on the fundamental challenges, and correlating solutions, for tackling complex policy challenges.

Thus, as much as design thinking has been framed as a novel replacement for traditional policy design, it is not a strictly "brand new" approach to public sector policy design. Rather, design thinking is better classified as a vehicle by which some of the central concerns of the new design orientation might be resolved through insights and methods from the design field. Specifically, design thinking acknowledges that:

1. Designs should not be envisioned as static outputs, but rather are best crafted with an appreciation for the reality that they will need to adapt and adjust over time;
2. Designers and the targets of design are not strictly rational actors, and that behavioral insights into each of these players' worldviews, practices, and rational constraints produce more robust policy solutions; and
3. Design is often a pluralistic activity, involving a diversity of actors within and outside government.

Addressing the first concern—the need to build adaptable designs—design thinking's emphasis on agile, iterative policy design processes is a clear match for the new design orientation's concern with ongoing design work involving packaging and patching as designs evolve. That is, design thinking builds into its process and methodologies an appreciation for the inevitable tweaks and wholesale transformations that policy designs will need to undergo as new knowledge and data arise upon testing and implementation. In particular, the sequencing dynamics of design thinking supports the agility of policy designs. Rather than viewing implementation as a later stage in the policy process, in design thinking, implementation is reframed as starting at the very early stages of policy design. By this model, end users and stakeholders are brought into the design process much earlier in the process (vs. when piloting or at final implementation), raising the chances of success by, for instance, securing stakeholders' buy-in, and accounting for the ways in which a service or program would operate in practice in the lives of those affected by it, versus only consulting at later stages of policy design, a practice which invites "the risk of policy work being subjected to major challenge and being sent back to the drawing board" (Mintrom & Luetjens, 2016, p. 393). This approach also ensures that the civil service can experiment safely with new policy options and service models, piloting interventions with the populations they affect at the earlier stage of development versus investing heavily and committing governments to courses of action before they have been proven effective. This, too, allows design thinking to support innovation in policy design, insofar as a commonly cited barrier to innovation in the public service—a fear of failure—is mitigated through reliance on iterative experimentation that ensures new approaches are tested and prototyped before costly large-scale rollout occurs (Clarke, 2016; Jarvis, 2016).

Design thinking also accounts for the new design orientation's preoccupation with both the bounded rationality of designers and that of the targets of policy interventions, and the benefits of behavioralist policy design approaches. More specifically, design thinking's user-centric research methods offer the new design orientation a practical means of addressing its concern over the behavioral aspects of designs—that is, to their lived implementation on the ground, among their target populations (Considine, 2012; Weaver, 2015). Here, design thinking advocates contend that public managers have traditionally suffered from a lack of empathy for how citizens and users experience and interact with social problems, services, and programs. This can lead to suboptimal interventions, treating symptoms not problems, addressing the wrong problems, exacerbating root causes of issues, creating new issues as an unintended side effect, or measuring "success" using metrics that are little related to the actual impact of a policy design on its target population. To many familiar with the policy implementation literature, this echoes the longstanding debate regarding top-down versus bottom-up implementation (Sabatier, 1986).

Further contributing to the behavioralist turn in policy design, design thinking's methodologies, with their heavy emphasis on the lived user experiences of those affected by a policy design, offer

useful mechanisms by which policy designs can be adapted to suit the various target populations to which their constituent policy designs are implemented (vs. the one-size-fits-all approach that the new policy design orientation rejects). In particular, design thinking's user-centric approach has borne fruit of late in the delivery of digital services, which have long suffered from large-scale and costly failures specifically because they were developed and evaluated to meet internal government needs—organized around departmental silos and structured to meet corporate policy requirements in areas such as procurement and communications, for instance—versus being designed in the first instance with the behaviors of the end user in mind (Borins, 2007; Clarke, 2014, 2017).

Finally, design thinking posits public sector design as an inherently co-productive act, involving a multiplicity of actors, thus addressing the new design orientation's efforts to integrate a plurality of government and nongovernment players into design studies, as part of the broader shift to Network Governance in the field of public policy and administration (Durose & Richardson, 2015). To account for the plurality of actors involved in policy design, design thinking adopts a systems-based approach and emphasizes the benefits of co-creation that considers the views and resources of a broad range of players within government, for example, IT developers that would be responsible for getting a program's web interface up and running, as well as users external to government, such as citizens that will use a new service or be affected by a new program. This approach asks governments to think beyond the institutional silos that have long been decried as barriers to effective policy formulation and implementation (Bakvis & Juillet, 2004; Jordan & Turnpenny, 2015), and in particular to redefine users as implementers themselves, following on the co-production literature in public policy and administration studies (Bovaird & Loeffler, 2013; Rees, Mullins, & Bovaird, 2012).

In sum, design thinking is not strictly a new approach to policy design but, instead, is better understood as a set of approaches by which well-established deficiencies in traditional policy design approaches—as identified in the new design orientation—can be tackled. However, in providing these techniques for today's designers, does design thinking fulfill the promises of its advocates by offering a superior theory of policy design, one which should wholesale replace the tradition of policy design that until now has shaped thinking in the field?

5 | WHERE DESIGN THINKING FALLS SHORT: THE ENDURING VIRTUES OF POLICY DESIGN

The final analysis presented in this section argues that design thinking falls short as a comprehensive theory of policy design by failing to sufficiently account for four requirements of public sector design, requirements that are as of yet still better addressed by the traditional and new policy design orientations. Given these omissions, as much as design thinking helpfully attends to certain important dynamics of public sector design, as argued already, it cannot be said to offer a wholesale replacement for mainstream policy design approaches, despite the bold claims that design thinking advocates have offered. Table 1 contrasts these two faces of design, detailing, on the one hand, the features of design thinking that render it a helpful lens for approaching the act of public sector design, as outlined in the previous section, alongside the four policy making requirements that are as of yet not accounted for by the design thinking approach to which governments globally have turned with enthusiasm of late.

A first issue with design thinking, as presented in the right-hand column of Table 1, is its ignorance of the political context of policy design. Design thinking relies on user experience and satisfaction metrics as a primary input to the policy design process. As argued above, in prioritizing the value of the user's feedback as a key metric guiding the initial and subsequent (re)design of policy, design thinking acts on a recognized deficiency in established policy design practice and in the broader field of public administration, with its current focus on networked models of governance (vs. the state-centric vision

TABLE 1 Policy design and design thinking compared

	Policy design	Design thinking
Allows for adaptation	✓	✓
Appreciates behavioral dynamics of designers and design targets	✓	✓
Acknowledges that design can be a multiactor, networked activity	✓	✓
Accounts for political constraints on design	✓	X
Accounts for policy capacity constraints	✓	X
Can accommodate a range of policy styles	✓	X
Accounts for reality of policy mixes	✓	X

of early models of Progressive Public Administration). That is, design thinking justifiably criticizes policy design for failing to sufficiently account for the lived experiences of one particular nonstate actor: the user affected by a policy problem, and the real-world impact of the policy designs crafted to address those problems, something behavioral approaches to policy design and the new policy design orientation have also identified as a lacuna (Maor, 2016; Schneider & Ingram, 1990). At the same time, user centrism is not an easily applicable or even appropriate design principle for all policy making contexts. This is particularly the case when one considers the politically contentious policy design choices governments must make, such as those decisions that arise when the broad and subsidiary objectives of a policy are determined. Here arises the first shortcoming of design thinking: its naïve blindness to the politics of the policy process.

Consider, for example, the policy challenge of marijuana decriminalization. In the first instance, design thinking's user centrism does not provide clues as to why this issue would even enter the government's agenda, or on how a government would determine its position on this issue and corresponding policy objectives. A user-centric view might posit that a government would pay attention to this issue and determine its policy objectives by considering the needs of users, but this begs the question: Which users? Marijuana advocates, dispensaries, illegal drug dealers, marijuana users, police forces, parents, physicians prescribing medicinal marijuana, or, conversely, treating marijuana addictions and related health side effects, the general population affected by the positive and negative externalities of drug policy? Each of these user's needs could very well be factored into a design thinking process, but given the complexity of the policy issue, and the political controversies and ideological conflicts it involves, user input will inevitably produce a mixed bag of competing needs to weigh. The act of weighing these needs is inherently political, subjective, normative, and ultimately falls to accountable elected officials granted the democratic power to define policy problems and policy goals, and to select the instruments intended to reach those goals.

Design thinking falls short, then, in providing guidance or methods by which politically contentious policy making activities should and are undertaken in practice, a significant gap considering the centrality of such activities to the practical act of policy design, and the processes of governing with which they unfold. This gap is immediately apparent when surveying the dominant design thinking texts in the field, which typically rely on examples of design processes that emphasize implementation and service delivery activities. That is, design thinking is depicted as beginning when the politically loaded acts of problem recognition, definition, and goal articulation are complete. Design work is typically relegated to the activities intended to implement or deliver on policy objectives, such as program and service delivery (Bason, 2014). Returning to the example cited already, design thinking may very

well be a useful means of effectively reaching the policy objective of decriminalizing marijuana. It may reveal how best to safely procure, distribute, and regulate the drug, and how to best support the public in adapting to this new policy approach, informing, for instance, public health campaigns, pricing regimes, and the location of dispensaries that best ensure decriminalized marijuana is consumed safely and legally. But design thinking is silent on the political task of deciding whether or not marijuana should be decriminalized in the first place, or on the political calculations that might lead an elected government to pursue a particular policy stance on this issue. Design thinking's favored lens of user centrism thus provides an idealized, contextually abstracted, and simplistic view of public sector design as an activity in which the act of governing is one of reacting to a uniform and noncontentious set of depoliticized user needs, a critique that has been directed toward digital service teams' adoption of user centrism in particular (see Clarke, 2014, 2016). In contrast, policy design approaches have long been preoccupied with the role that political context plays in public sector design, even going so far as to accept that this political context may lead to nondesigns given the constraints it imposes on problem identification and instrument selection (Howlett, Mukherjee, & Woo, 2015; May, 2012). Here, traditional policy design approaches prove their value, while design thinking suffers from a significant oversight.

A second deficiency in design thinking, and correlating strength of policy design, emerges when considering the scalability of design thinking. Design thinking may not be appropriate for all policy contexts given the sequencing, time horizons, and resource intensity it requires. Some policy problems will not lend themselves to design thinking because they require immediate decisions or because the resources required for extensive user testing, iteration, and internal and external collaboration are not available. These constraints help explain why, to date, design thinking is often extolled through single case studies (Bason, 2014), where addressing discrete policy challenges (typically in concert with service delivery and implementation activities, as already discussed) that are amenable to design thinking. There is to date no empirical verification that design thinking, as a standardized practice, can be scaled up to an entire policy sector, or government, and endure over a prolonged period of time. Indeed, this may explain why most governments have been willing to invest in specialized units and pilots but none have jettisoned the traditional policy design approach in favor of design thinking across government. This reflects a long-standing recognition in policy design studies that while systems-based collaboration, co-production, user engagement, and experimentation can offer optimal models of problem solving, in practice, they are not always feasible given the limitations at play in policymaking contexts and the policy capacities of government (Howlett, Wellstead, & Craft, 2017; Jordan & Turnpenny, 2015). Thus, the public policy and administration literature discusses the rise of Network Governance and a correlating rejection of state-centric Progressive Public Administration, but practice suggests this discussion is at this time more prescriptive than it is wholly descriptive of government activity "on the ground," given the enduring place of Weberian bureaucratic institutions within contemporary governance arrangements (Olsen, 2006).

A third critique of design thinking emerges from research into policy design styles and related governance models. This research underscores that institutional arrangements and policy actor ecosystems, of particular jurisdictions or policy issues, cannot only condition design options but are more or less amenable to different policy challenges and the designs intended to address them (Considine, 2012; Richardson, Gunnel, & Jordan, 1982). This work goes further than simply asserting that networked approaches to governance are not always feasible; it asserts that in certain cases, the normative preference in the design thinking literature, which universally privileges networked governance arrangements, is too simplistic, given that it ignores the range of policy styles and related governance arrangements that might be suited to a given policy problem (Howlett, 2009; Kay, 2007). To be sure, the principles of design thinking do not necessarily deny the existence of policy design styles, and they

may actually provide means of illuminating them (e.g., by providing the designer's or stakeholders' fresh outsider perspectives to illuminate otherwise taken for granted status quo defaults in a given design context). However, while not explicitly saying so, design thinking principles implicitly assert that in addressing these entrenched policy design styles it is always optimal for a government to adopt practices and approaches favored by design thinking and broader networked models of governance (open, collaborative, iterative, user centric). In contrast, while policy design has of late come to appreciate the virtues of a range of possible policy styles, from strict hierarchical, state-centered modes of policy design, to pluralistic, networked arrangements, as already discussed, it nonetheless asserts that none of these is always superior. Rather, where possible, governing arrangements should be selected to achieve a best of fit complementarity with the jurisdiction, policy issue, and design mix in question (Jordan & Matt, 2014; May, 2012). In short, policy design theories offer an expanded menu of approaches versus design thinking that presumes networked, user-centered, experimental approaches are always optimal. The long tradition of policy design theory and empirical research cautions against this narrow and simplistic proposition.

Finally, design thinking suffers a fourth central deficiency in that it treats policy designs as discrete, unitary constructions, ignoring that policy designs are instead nested and combined with a range of existing policy designs with which they interact, and with which they are more or less compatible, as part of policy mixes (Bode, 2006; Rogge & Reichardt, 2016). Here again, policy design steps in to provide both theoretical and empirical insight that design thinking currently lacks. Specifically, acknowledging the prevalence of policy mixes, policy design theories emphasize the need to design policies that work in mutually reinforcing ways with the other designs with which they interact, achieving consistency, coherence, and congruence between and among the various policy instruments selected and goals pursued by a government (Briassoulis, 2005; Howlett & Rayner, 2013; Stead, Geerlings, & Meijers, 2004).

Policy designers must, therefore, account for the fact that the ongoing consistency, coherence, and congruence of policy mixes can be challenged as their constituent designs evolve. That is, as one policy design is adjusted or tweaked, designers ignorant of the ripple effects of its adjustments on related policy designs may inadvertently create new policy problems, or undermine their efforts to achieve certain objectives (Howlett & Rayner, 2007; Kay, 2007; Jordan & Matt, 2014). As much as this article has argued that design thinking's efforts to build scope for agile iteration and feedback loops can facilitate optimal packaging and patching of policy designs as they evolve over time, one can equally critique design thinking for failing to address those situations in which policies developed via design thinking (and crafted to create space for optimal packaging and patching) are mixed into portfolios with existing legacy policy designs that are undermined by or which contradict the agile adjustments continually being made via a design thinking process tackling one particular design within a larger portfolio. Here, drawing on neo-institutional theory (Capoccia & Kelemen, 2007; Hall & Taylor, 1996; Thelen, 1999), policy design offers rich insights, exploring the sequencing effects at play in these nested, diverse policy mixes/portfolios, and proposing the conscious *layering* of new design components onto existing designs, *replacement* of designs by alternatives, and the stretching of existing designs through *drift* (purposefully retaining elements of a new design to suit the dynamics of a changing policy environment) and *conversion* (purposefully applying some or all of an existing design to reach alternative policy goals; Hou & Brewer, 2010; Howlett, Mukherjee, & Woo, 2015; Jordan, Benson, Zito, & Wurzel, 2012). These insights are absent from design thinking, which prefers a more simplistic framing of policy design as an act involving one discrete policy design challenge, as opposed to the more complex, but true to life, understanding of policy design as an output that both shapes and is shaped by a larger array of related policy designs at work at any given time.

6 | TAKING THE NEW DESIGN ORIENTATION TO THE NEXT LEVEL: INTEGRATING DESIGN THINKING AND POLICY DESIGN IN RESEARCH AND PRACTICE

Despite claims to the contrary, design thinking does not represent a wholesale or superior replacement for mainstream policy design theory. The case has been made here that instead it is a complementary approach that accurately picks up on well-documented deficiencies in traditional design approaches, some of which are already reflected in the push for a new design orientation in policy making. Three key implications emerge from the above analysis.

First, scholars and practitioners of traditional policy design clearly cannot ignore the emergent and, in some cases, unorthodox contributions of design thinking and its methods. At a basic level, the phenomenon deserves attention given the real-world impact that design thinking is having as governments enthusiastically turn to design thinking to meet unresolved policy and governance challenges. For practitioners, this may mean building in skills for user engagement, working to dissolve or challenge the siloed, single-disciplinary approaches they currently take to policy design, and endeavoring to retire waterfall models of policy design in favor of early experimentation and regular iteration. Equally, scholars who seek to sharpen and deepen policy design's purchase for policy makers must better incorporate design thinking into their theories and research. In particular, this article has flagged a number of areas in which design thinking may bolster the new design orientation's efforts to inform design practices that are more agile, collaborative, and systems based, and that account for the behaviors of designers and policy design targets.

At the same time, a second key implication of this article emerges from its critical evaluation of design thinking and its potential contributions to public sector design. At present, the empirical record and existing limitations of design thinking suggest it will be amenable to certain public policy problems and certain design contexts. Namely, design thinking will particularly apply to policy problems that are clearly defined, at the stage of implementation, and in contexts in which systems-thinking and networked approaches are possible and desirable. But design thinking is not a wholesale saving grace for today's policy designers, a warning that governments investing in design labs and related initiatives should heed, and that should compel practitioners to equally invest in the more traditional design capacities that they will need to rely on for a vast array of policy challenges.

Third, having emerged from outside the mainstream policy studies field, design thinking advocates offer a fresh perspective, but their propositions, and in particular, claims to offering a superior model of policy making, are in some cases naïve and ill-informed precisely because they do not appreciate the rich insights of existing policy design orthodoxy. Design thinking advocates must work harder to familiarize themselves with the body of empirical and theoretical work that preceded the application of design thinking to public sector design. Rather than dampening enthusiasm for design thinking, those that blend these two perspectives will add thoughtful nuance to design thinking's claims. This may ensure that what is currently an emerging trend globally does not come and go as a victim of "over-promising and underdelivering," but rather that design thinking endures as a well-accepted and well-regarded tool within the broader public sector design approach.

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ENDNOTE

[1] Both policy design and design thinking adopt an applied problem-solving logic and typically involve predispositions to instrumental rationality. There is however recognition that not all situations are amenable to "design" (see Howlett, 2011). Others have rightfully identified alternative, post-positivist and interpretivist, critiques, and approaches to policy design (see Colbatch, 2017; Turnbull, 2017).

REFERENCES

Bakvis, H., & Juillet, L. (2004). *The horizontal challenge: Line departments, central agencies and leadership*. Ottawa: Canada School of Public Service. Retrieved from http://publications.gc.ca/collections/Collection/SC94-72-1996E.pdf

Bason, C. (2010). *Leading public sector innovation: Co-creating for a better society*. Bristol, UK: Policy Press.

Bason, C. (Ed.). (2014). *Design for policy*. New York, NY: Routledge.

Bason, C. (2017). *Leading public design: Human centered governance*. Bristol, UK: Policy Press.

Behavioural Insights Team. (2017). *Who We Are*. Retrieved from http://www.behaviouralinsights.co.uk/about-us/

Bellafontaine, T. (2013). *Innovation labs: Bridging think tanks and do tanks*. Ottawa: Policy Horizons Canada. Retrieved from http://www.horizons.gc.ca/eng/content/innovation-labs-bridging-think-tanks-and-do-tanks

Bobrow, D. (2006). Policy design: Ubiquitous, necessary and difficult. In B. G. Peters & J. Pierre (Eds.), *Handbook of public policy* (pp. 75–96). Thousand Oaks, CA: Sage.

Bode, I. (2006). Disorganized welfare mixes: Voluntary agencies and new governance regimes in Western Europe. *Journal of European Social Policy*, *16*(4), 346–359.

Borins, S. F. (Ed.). (2007). *Digital state at the leading edge*. Toronto, Canada: University of Toronto Press.

Bovaird, T., & Loeffler, E. (2013). *We're all in this together: Harnessing user and community co-production of public outcomes*. Birmingham, UK: Institute of Local Government Studies, University of Birmingham. Retrieved from http://www.bhamlive3.bham.ac.uk/Documents/college-social-sciences/government-society/inlogov/publications/chapter-4-bovaird-loeffler.pdf

Briassoulis, H. (Ed.) (2005). *Policy integration for complex environmental problems: The example of Mediterranean desertification*. Aldershot, UK: Ashgate.

Capano, G., Howlett, M., & Ramesh, M. (2015). Bringing governments back in: Governance and governing in comparative policy analysis. *Journal of Comparative Policy Analysis*, *17*(4), 311–321.

Capoccia, G., & Kelemen, R. D. (2007). The study of critical junctures: Theory, narrative, and counterfactuals in historical institutionalism. World Politics, *59*(3), 341–369. https://doi.org/10.1017/S0043887100020852

Carstensen, H. V., & Bason, C. (2012). Powering collaborative policy innovation: Can innovation labs help? *The Innovation Journal*, *17*(1), Article 4.

Christiansen, J. (2015, May 13). *Redesigning the culture and functionality of government*. Design for Europe. Retrieved from http://designforeurope.eu/news-opinion/redesigning-culture-and-functionality-government

Clarke, A. 2014. *Government-citizen relations on the social web: Canada and the United Kingdom, 2006–2013*. Oxford, UK: University of Oxford.

Clarke, A. (2016, May 11). The innovation challenge: Modernizing the public service. *Policy Options*. Retrieved from http://policyoptions.irpp.org/magazines/may-2016/the-innovation-challenge-modernizing-the-public-service/

Clarke, A. (2017). Digital government units: Origins, orthodoxy and critical considerations for public management theory and practice. *Social Science Research Network*. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3001188

Clarke, A., & Craft, J. (2017). The vestiges and vanguards of policy design in a digital context. *Canadian Public Administration*, *60*(4), 476–497.

Craft, J., & Halligan, J. (2017). Assessing 30 years of Westminster policy advisory system experience. *Policy Sciences*, *50*(1), 47–62.

Craft, J., & Wilder, M. (2017). Catching a second wave: Context and compatibility in advisory system dynamics. *Policy Studies Journal*, *45*(1), 215–239.

Colbatch, H. K. (2017). The idea of policy design: Intention, process, outcome, meaning and validity. *Public Policy and Administration*. Advance online publication. https://doi.org/10.1177/0952076717709525

Considine, M. (2012). Thinking outside the box? Applying design theory to public policy. *Politics & Policy*, *40*(4), 704–724.

Daugbjerg, C., & Swinbank, A. (2016). Three decades of policy layering and politically sustainable reform in the European union's agricultural policy. *Governance*, *29*(2), 265–280.

Del Río, P. (2014). On evaluating success in complex policy mixes. *Policy Sciences*, *47*(3), 267–287.

Department of Industry, Innovation and Science. (2011). *Australian Public Service Innovation Action Plan*. Retrieved from https://industry.gov.au/innovation/publicsectorinnovation/Pages/Library%20Card/APS_Innovation_Action_Plan.aspx

Dunleavy, P., & Hood, C. (1994). From old public administration to new public management. *Public Money and Management*, *14*(3), 9–16.

Durose C., & Richardson. L. (Eds.) (2015). *Designing public policy for co-production: Theory, practice and change*. Bristol, UK: Policy Press.

Government Digital Service. (2015). *About the government digital service*. Retrieved from https://gds.blog.gov.uk/about/

Gunningham, N. D., & Sinclair, D. (1999). Regulatory pluralism: Designing policy mixes for environmental protection. *Law Policy*, *21*(1), 49–76.

Hall, P. A., & Taylor, R. C. R. (1996). Political science and the three new institutionalisms. *Political Studies*, *44*(5), 936–957.

Hood, C. (1986). *The tools of government*. Chatham, UK: Chatham House.

Hou, Y., & Brewer, G. (2010). Substitution and supplementation between co-functional policy instruments: Evidence from state budget stabilization practices. *Public Administration Review*, *70*(6), 914–924.

Howlett, M. (2009). Governance modes, policy regimes and operational plans: A multi-level nested model of policy instrument choice and policy design. *Policy Sciences*, *42*(1), 73–89.

Howlett, M. (2011). *Designing public policies: Principles and instruments*. New York, NY: Routledge.

Howlett, M. (2014). From the "old" to the "new" policy design: Design thinking beyond markets and collaborative governance. *Policy Sciences*, *47*(3), 187–207.

Howlett, M., Mukherjee, I., & Woo, J. J. (2015). From tools to toolkits in policy design studies: The new design orientation towards policy formulation research. *Policy & Politics*, *43*(2), 291–311.

Howlett, M., & Rayner, J. (2007). Design principles for policy mixes: Cohesion and coherence in "new governance arrangements". *Policy and Society*, *26*(4), 1–18.

Howlett, M., & Rayner, J. (2013). Patching vs packaging in policy formulation: Assessing policy portfolio design. *Politics and Governance*, *1*(2), 170–182.

Howlett, M., Wellstead, A., & Craft, J. (2017). *Policy work in Canada: Professional practices and analytical capacities*. Toronto, Canada: University of Toronto Press.

Jarvis, M. D. (2016). *Creating a high-performing Canadian civil service against a backdrop of disruptive change*. Ontario, Canada: Mowat Centre.

Johansson-Sköldberg, U., Woodilla, J., & Çetinkaya, M. (2013). Design thinking: Past, present and possible futures. *Creativity and Innovation Management*, *22*(2), 121–146.

Jordan, A., & Matt, E. (2014). Designing policies that intentionally stick: Policy feedback in a changing climate. *Policy Sciences*, *47*(3), 227–247.

Jordan, A., & Turnpenny, J. R. (Eds.). (2015). *The tools of policy formulation: Actors, capacities, venues, and effects*. Northampton, UK: Elgar.

Jordan, A., Benson, D., Zito, A., & Wurzel, R. (2012). Environmental policy: Governing by multiple policy instruments? In J. J. Richardson (Ed.), *Constructing a policy state? Policy dynamics in the EU*. Oxford, UK: Oxford University Press.

Kay, A. (2007). Tense layering and synthetic policy paradigms: The politics of health insurance in Australia. *Australian Journal of Political Science*, *42*(4), 579–591.

Kimbell, L. (2010). *Design practices in design thinking*. Working Paper, Saïd Business School, University of Oxford, Oxford, UK. Retrieved from http://www.lucykimbell.com/stuff/DesignPractices_Kimbell.pdf

La 27e Région. (2017). *La 27e Région: Un laboratoire pour transformer les politiques publiques*. Retrieved from http://www.la27eregion.fr/en/

Linders, S., & Peters, B. G. (1989). Instruments of government: Perception and contexts. *Journal of Public Policy*, *9*(1), 35–58.

Linders, S. H., & Peters, B. G. (1990). Policy formulation and the challenge of conscious design. *Evaluation and Program Planning*, *13*, 303–311.

Maor, M. (2016). The implications of the emerging disproportionate policy perspective for the new policy design studies. *Policy Sciences*, *50*(3), 383–398.

Matti, C., Consoli, D., & Uyarra, E. (2016). Multi level policy mixes and industry emergence: The case of wind energy in Spain. *Environment and Planning C: Politics and Space*, *35*(4), 661–683.

May, P. (2012). Policy design and implementation. In B. Guy Peters & J. Pierre (Eds.), *Handbook of public administration* (pp. 223–233). Beverly Hills, CA: Sage.

MindLab. (2017). About MindLab. *MindLab* (blog). Retrieved from http://mind-lab.dk/en/om-mindlab/

Mintrom, M., & Luetjens, J. (2016). Design thinking in policymaking processes: Opportunities and challenges. *Australian Journal of Public Administration*, *75*(3), 391–402.

Mulgan, G. (2014, January). *Design in public and social innovation: What works and what could work better*? London, UK: Nesta.

NHS Institute for Innovation and Improvement. (2013). *Experience based design: Using patient and staff experience to design better healthcare services*. Retrieved from http://www.institute.nhs.uk/quality_and_value/experienced_based_design/the_ebd_approach_%28experience_based_design%29.html

Olsen, J. P. (2006). Maybe it is time to rediscover bureaucracy. *Journal of Public Administration Research and Theory*, *16*(1), 1–24.

Osborne, S., & Gaebler, T. (1992). *Reinventing government: How the entrepreneurial spirit is transforming the public sector*. New York, NY: Plume.

Rasmusson, J. (n.d.). *Agile vs Waterfall*. Retrieved from http://www.agilenutshell.com/agile_vs_waterfall

Rees, J., Mullins, D., & Bovaird, T. (2012). *Partnership working*. Birmingham, UK: Third Sector Research Centre.

Richardson, J., Gunnel, G., & Jordan, G. (1982). The concept of policy style. In J. J. Richardson (Ed.), *Policy styles in Western Europe* (pp. 1–16). London, UK: Allen & Unwin.

Rogge, K., & Reichardt, K. (2016). Policy mixes for sustainability transitions: An extended concept and framework for analysis. *Research Policy*, *45*(8), 1620–1635.

Sabatier, P. (1986). Top-down and bottom-up approaches to implementation research: A critical analysis and suggested synthesis. *Journal of Public Policy*, *6*(1), 21–48.

Salamon, L. (1989). The tools approach: Basic analytics. In L. S. Salamon & M. S. Lund (Eds.), *Beyond privatization: The tools of government action* (pp. 23–50). Washington, DC: Urban Institute.

Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, *4*(1), 5–18.

Schneider, A., & Ingram, H. (1994). Social constructions and policy design: Implications for public administration. *Research in Public Administration*, *3*, 137–173.

Schneider, A. L., & Ingram, H. (1990). Behavioural assumptions of policy tools. *Journal of Politics*, *52*(2), 510–529.

Simon, H. A. (1969). *The sciences of the artificial*. Cambridge, MA: MIT Press.

Stead, D., Geerlings, H., & Meijers, E. (2004). *Policy integration in practice: The integration of land use planning, transport and environmental policy-making in Denmark, England and Germany*. Delft, Netherlands: Delft University Press.

Stoker, G. (2006). Public value management: A new narrative for networked governance? *American Review of Public Administration*, *36*(1), 41–57.

Thelen, K. (1999). Historical institutionalism in comparative politics. *Annual Review of Political Science*, *2*, 369–404.

Tonurist, P., Kattel, R., & Lember, V. (2017). Innovation labs in the public sector: What they are and what they do. *Public Management Review,* (February), 1–25.

Torgerson, D. (1985). Contextual orientation in policy analysis: The contribution of Harold D. Lasswell. *Policy Sciences*, *18*(3), 241–252.

Turnbull, N. (2017). Policy design: Its enduring appeal in a complex world and how to think it differently. *Public Policy and Administration*, *33*(4), 1–8.

Weaver, R. K. (2015). Getting people to behave: Research lessons for policy makers. *Public Administration Review*, *75*(6), 806–816.

Woodside, K. (1986). Policy instruments and the study of public policy. *Canadian Journal of Political Science*, *19*(4), 775–793.

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