Abstract

New forms of public governance or major changes in current governance practices are needed because public institutions are, in their present form, often not up to their task. Democratic and governance bodies operating at local, national and global levels are thus responding to major problems and challenges using yesterday’s tools: they draw on adhoc and multilateral negotiations largely driven by short-term interests of the stakeholders involved. Despite these huge challenges, most institutional researchers focus on describing and explaining these phenomena rather than engaging in actual attempts to change the (conditions of the) system itself. Several scholars have therefore been advocating a fundamental rethink of the apolitical character of institutional research to move away from research primarily driven by extant theories and methods, toward research framed around fundamental dilemmas in the real world. In this spirit, a design science (DS) perspective on institutional research and practice is proposed in this paper, inspired by Herbert Simon’s seminal work in this area. We explore the nature of institutional research as DS, review several examples, and discuss the implications and prospects of future research. A key implication is that any attempt to re-invent and transform public institutions is doomed to fail, when institutional scholarship does not play an active role.
Introduction

Governments around the world are struggling to find innovative solutions for complex problems in situations of fiscal stress. Key issues are sustainability, the quality of living in cities, and inequalities and tensions between groups of citizens. To address these challenges, new forms of governance are needed which serve to make and implement collectively binding decisions that take into account the interests of all those affected, including future generations. Institutions for public governance are, in their present form, not up to the task. That is, democratic and administrative bodies respond to major problems and challenges using yesterday’s tools, drawing on majority-minority ploys and adhoc negotiations largely driven by short-term interests of the participants (OECD 2017; Shkliarevsky 2016; Szombatfalvy 2010). As a consequence, the interventions needed are either not taken or taken too late, which further deteriorates the prospects of human life on this planet (Szombatfalvy 2010).

As such, it is a cause for concern that the vast majority of institutional researchers and political scientists focus on describing and explaining how existing governance systems operate, rather than engaging in experimentation, interventions and other efforts to actually change (the conditions of) these systems. In this respect, several scholars have been advocating a fundamental rethink of the apolitical character of much research in the area of political science and public governance (e.g. Gunnell 2004; Ricci 1984; Schram, Flyvbjerg & Landman 2013). In the late nineteenth century, early pioneers in political science believed that their scientific work would need to serve the development and growth of democracy (Gunnell, 2006). However, methodological debates between positivists and interpretivists appear to have long inhibited a productive discussion about the purpose and role of political science (Al-Habil, 2011).

Nonetheless, several authors argue that political and institutional research needs to move away from studies primarily driven by extant theories and methods, toward research framed around pressing political issues and dilemmas in the real world (Buick, Blackman, O'Flynn, O'Donnell, & West, 2016; Schram, Flyvbjerg, & Landman, 2013; Shapiro, 2005; Smith, 2002). In this paper, we contribute to this discourse by developing a so-called design science perspective on institutional research and practice. The notion of design science (DS) arises from Herbert Simon’s seminal work, and has been gaining momentum in fields such as information systems and organization studies. We explore the nature of institutional research as DS, review several examples of this type of research, and map the various research methods at the interface of institutional/political science and design. A key implication is that any attempt to re-invent and transform public institutions is doomed to fail, when scholars in public governance do not play an active role.

The argument is organized as follows. First, the next section explores the rise of a discourse on experimentalist governance, and the need for a consistent methodological framework in this area. To fill this gap, we present a ‘design science’ (DS) methodological framework. Subsequently, two examples serve to illustrate how DS can be applied. Finally, we discuss
the implications of our argument as well as the prospects of DS for future research on public governance.

**Background**

The need to rethink political and institutional research, discussed in the previously section, is reflected in the rise of the discourse on experimentalist governance (e.g. Ansell 2011; De Búrca et al. 2013; Sabel & Zeitlin 2012). In this respect, public governance presents enormous challenges, due to the plurality of stakeholders and the various sensitivities around representation and sovereignty. The *experimentalist governance* perspective has been inferred from how (successful) international regimes operate in the area of human rights, ozone, fishing and AIDS (e.g. De Búrca et al. 2013; Goldstein & Ansell 2017; Sabel & Zeitlin 2012). As such, experimentalist governance involves a variety of iterative steps and activities that foster deliberation and learning (De Búrca et al. 2013; Goldstein & Ansell 2017; Sabel & Zeitlin 2012), such as:

- initial reflection and discussion of a common problem among stakeholders;
- articulating a broad, deliberately provisional, framework of open-ended goals and provisional metrics;
- lower-level or contextually situated actors have considerable discretion to use their knowledge of local conditions to meet goals and adapt the framework to their contexts;
- continuous feedback from local actors allows for pooling information, and reporting and monitoring across a range of contexts; and
- iterative learning, based on lessons learned at local levels, serves to periodically re-evaluate goals and practices, and where appropriate, revise them.

The implication of the experimentalist governance perspective is a highly decentralized and recursive approach toward governance, one that is fundamentally different from how public governance practices traditionally operate. For one, the idea that a framework should be ‘deliberately provisional’ (Sabel & Zeitlin 2011: 169) is highly antagonistic to the conventional perspective on policy plans, developed to create a new stable situation that generates predictability and legal rights. Iterative learning is another key notion in experimentalist governance, one that emphasizes that policy-making occurs through recursive loops of learning rather than through a fixed implementation process. The third key idea is contextualization, which stresses the need for adapting plans to different contexts and using the implementation in various contexts for further learning. These three notions, together, constitute an iterative, short-cycle design process that is quite different from the long-cycle, waterfall policy making approach that currently prevails in public governance (Sabel & Zeitlin 2011).

Evidently, experimentalist governance does not take place in a vacuum where institutions do not matter, or only get in the way of securing a successful outcome. In fact, it is often because of institutions that experimentalist forms of governance can thrive. Particularly at the level of the European Union (EU) many experimentalist forms of governance exist, probably because the EU administrative system is in a constant state of redevelopment in order to be
able to address increasingly diverse demands, in terms of the range of policy issues and geographical scope. Because the EU mostly does not implement policies itself, and because member states have become increasingly interdependent, European integration drives European and national administrations into a cooperative mode (Joerges 2006; Heidbreder 2011). Therefore, a wide variety of formal and informal administrative arrangements have been developed, layered around existing institutional arrangements, that allow for varying degrees of experimentation (Curtin & Egeberg 2008; Héritier & Rhodes 2010; Trondal & Peters 2013; Joosen & Brandsma 2017).

Research on the workings of these forms of governance bears important lessons that travel well beyond the domain of EU governance. One lesson is that formal decision-making power matters for achieving a result. Without the presence of voting rules, or if the agreements made between policy actors are not binding, the odds that policy learning leads to policy adjustment go down. This is why the EU’s ‘Open Method of Coordination’ and networks that bring together (national) agencies are less effective than administrative committees authorized to make decisions: even though in all these forms of governance a problem-solving logic appears to prevail, in the former a lot depends on the political will of domestic hierarchies to actually adjust policies, while this is not the case in the latter type (Joerges & Neyer 1997; De la Porte & Pochet 2012; Brandsma 2013; Danielsen & Yesilkagit 2014). Also, when actors present at the table cannot come to an agreement, it often helps if one participant (usually central government) is able to adopt the decision by itself, which then overrides the interests of the other participants. This ‘shadow of hierarchy’ serves as a credible threat to the other participants forcing them into a problem-solving mode rather than into solely defending their own narrow interest, especially if they fear to be worse off under a government decision than under a compromise between stakeholders (Héritier & Rhodes 2010).

A second lesson is that the institutionalization of expertise matters for the policies that are finally adopted. In the past decades there has been a trend of creating specialized independent agencies. Sometimes these agencies only have advisory functions, but often they also play a part in drafting or implementing regulation (Busuioc 2013). It is important to note here that many of these agencies have been created specifically to make long-term policy interests prevail over narrow, short-term political interests (Majone 2000). It is also for this reason that the move towards independent agencies has fueled fears of an uncontrolled, runaway bureaucracy. However, those fears are not vindicated for all such agencies: the level of political control exercised over them varies significantly, and more importantly, their role in the decision-making process also differs (Busuioc 2013). When such independent agencies exercise rule-making authority jointly with other public bodies, they can be kept in check while the advantages of institutionalizing expertise into the decision-making process remain (Majone 2000).

In short, we see that institutional rules and practices matter. Any ‘design science’ approach to governance should thus take the institutional aspects of experimentalist governance seriously, if such governance arrangements are to make an impact. In this respect, most institutional
researchers appear to focus on describing and explaining these phenomena rather than engaging in actual attempts to change the (conditions of the) system itself. Several scholars have therefore advocated a fundamental rethink of the apolitical character of institutional research, that is, to move away from research primarily driven by extant theories and methods toward research framed around fundamental dilemmas in the real world (Gunnell 2004; Ricci 1984; Schram, Flyvbjerg & Landman 2013). In this spirit, a design science (DS) perspective on institutional research and practice is proposed in this paper. We explore the nature of research as DS, review several examples, and discuss the implications for future research.

**Toward a Design Science Perspective**

In this section, we develop a design science perspective, informed by Simon’s (1969) seminal *The Sciences of the Artificial*. Simon (1969) identified two properties of (administrative and other) artifacts, which make an exclusively ‘scientific’ approach inadequate for studying these artifacts: human intentionality and environmental contingency. This implies that public administration research, and more broadly, institutional research is primarily a science of the artificial. That is, it is a creative design discipline that draws on a scientific body of knowledge. More recently, Simon’s initial set of ideas were re-introduced in the field of management and governance (e.g. Hatchuel 2001; Romme 2003; Sarasvathy 2003), which in turn may serve to develop a more inclusive ‘design science’ perspective on public administration and institutional theory, also inspired by similar perspectives in adjacent fields (e.g. March & Smith 1995). The need for such an inclusive approach is also evident from the fragmentation of the field of public administration, due to the ambiguity of key notions.

**Ambiguity around key notions**

The landscape of public administration research and institutional theory is rather fragmented, due to the lack of agreement on key notions such as theory, validity and testing. We focus here on the notions of theory and test(ing). Obviously, at the heart of any academic endeavor is *theory*, or the act of *theorizing*. Many scholars argue that theory involves propositions or statements that are generalizable as well as applicable to, or testable on, individual cases (Hambrick 2007; Shapira 2011), that is, “a way of imposing conceptual order on the empirical complexity of the phenomenal world” (Suddaby 2014: 407). By contrast, others (Flyvbjerg 2001; Locke & Golden-Biddle 1997; Zbaracki 2006) have been questioning this conception of theory, because “we cannot improve the theorizing process until we describe it more explicitly, operate it more self-consciously, and decouple it from validation more deliberately” (Weick 1989: 1). As such, Weick (1989), Flyvbjerg (2001) and others have been advocating theory as an act of ‘creative discovery’.

Similarly, the notion of *testing* is also highly ambiguous in the field of public administration and governance. For many scholars, ‘testing’ (theory) refers to ways to assess the internal and external validity of constructs, test hypotheses by means of inferential statistics, and so forth (e.g. Citrin, Levy & Wright 2014; Kenis & Provan 2009). Other scholars draw on a narrative, constructivist view of knowledge that implies a focus on action and sensemaking as genuinely creative and context-specific acts (e.g. Buick, Blackman, O'Flynn, O'Donnell &
Toward an inclusive methodology

In any professional field, it is rather difficult to make progress toward a coherent body of knowledge if key terms and ideas are highly disputed and ambiguous (Abbott 1988). Here, we draw on an inclusive taxonomy of key terms developed by Romme (2016), inspired by Simon’s (1969) conception of a science of the artificial as well as March and Smith’s (1995) seminal paper on combining the natural science and design science perspectives in the field of information systems.

Overall, the discourse on design science explicitly embraces a broad array of possible research in- and outputs, including theoretical constructs and models, but also values, principles and practical instantiations. Moreover, discovery and validation are conceived as two different, but complementary, research activities (Romme 2016). These two dimensions, research in/outputs and research activities, are now dissected in more detail. Overall, this taxonomy serves to acknowledge different notions of theory and testing (as previously outlined), but in different segments of the taxonomy. Moreover, this taxonomy serves to acknowledge that not only constructs and models, but for example also values and instantiations, should be discovered and validated. The remainder of this section largely draws on Romme (2016).

Research inputs and outputs
The public administration field is characterized by an abundance of research outputs. This variety can be captured in five categories of research in/outputs (Romme 2016):

- values
- constructs
- models
- principles
- instantiations

Research inputs and outputs are largely synonymous here, because the iterative and cumulative nature of public administration research implies that research outputs from one project often are subsequently used as inputs in another project. Thus, the term ‘research output’ refers to both inputs and outputs in the remainder of this article.

A value denotes the degree of importance a particular action has for a (group of) human agent(s); it serves to determine what type of action is best or ‘right’ (Myers & Thompson 2006). As such, values constitute the normative dimension of a professional community and are a key mechanism guiding professional work. Notably, the idea that research should be ‘value-free’, in terms of an exclusive focus on describing and explaining the objective reality ‘out there’, is in itself a value-based decision: it prioritizes the explanation of existing reality, rather than seeking to contribute to efforts to transform that reality (Argyris 1993).
 Constructs constitute the vocabulary for describing problems and challenges in the field of public administration. Most constructs in this field involve concepts or variables that cannot be directly observed (e.g. “transparency”, “trust”, “participation”, “integrity”), and therefore need to be operationalized, estimated or approximated.

A model involves a set of propositions or statements expressing relationships among constructs. This broad definition includes conceptual frameworks, mathematical models, and ‘theories’ (as defined by Shapira 2011) and thus captures the variety of narrative and statistical approaches used in public administration research. Notably, this definition not only captures explanatory and descriptive models, but also action- and intervention-oriented ones. Romme (2016) deliberately avoids using the label ‘theory’, arguing that ‘theorizing’ (as a key research activity, discussed later) not only applies to constructs and models, but also to values, principles and instantiations.

Principles, also known as design principles, refer to solution concepts for a certain problem or challenge, that is, the ‘real helps’ for decision-making and action by practitioners. These principles tend to be heuristic and synthetic in nature; an example is the set of principles for open government published by OGP (2017). Notably, constructs and principles are fundamentally different in terms of their functionality as (intermediary) research output: constructs primarily serve an analytical function, by dissecting complex patterns and phenomena into smaller elements; by contrast, principles primarily serve to synthesize research findings in the service of practical action and instantiation.

Finally, an instantiation involves the realization of an artifact in its institutional context. Any instantiation is an operationalization of values, constructs, models and/or principles, regardless of whether or not these are (ex ante or retrospectively) defined, codified or theorized. The category of instantiations is a broad one, including both tangible and intangible artifacts: for example, social contracts, political agreements, decision-making practices, and open data systems and strategies. As such, it also includes various instantiations by public administration researchers, such as questionnaires, research papers, presentation slides, and reports to funding agencies.

Figure 1 presents these five research output categories as part of ongoing cycle. The arrows in this figure refer to prevailing iterations and interactions (e.g. between constructs and models; and between principles and instantiations), but other interactions are also possible (e.g. between constructs and principles).
Research activities

The various interpretations of key research activities such as testing, depicted earlier, also invites an inclusive categorization of research activity. We here draw on the high-level distinction between discovery and validation. Discovery involves creating new knowledge on either established (public governance) practices or newly emerging ones, but it may also involve creating knowledge about practices and processes that ‘might be’ or ‘should be’. Once new knowledge has been discovered, validation serves to codify, fine-tune, generalize, justify and (possibly) falsify it.

Following Romme (2016), we further differentiate these two high-level categories into creating and evaluating (together: discovery) and theorizing and justifying (together: validation). Creating involves the initial act of conceiving a value, construct, model, principle or instantiation that is (perceived as) new. Evaluating refers to the act of assessing one or more of these research outputs against criteria such as usefulness, relevance and novelty. Theorizing is about producing propositions or statements that are generalizable as well as applicable to, or testable on, individual cases. Justifying involves any effort to enhance the legitimacy of a particular research output; it thus is about assessing one or more research outputs against criteria such as internal and external validity.

Figure 2 provides an overview of the iterative nature of these four research activities—as equivalent activities that together may enable a viable and inclusive discourse on public administration. This taxonomy helps resolve some of the ambiguity around the notion of ‘theory’, discussed earlier. Critics of the validation-oriented notion of theorizing would prefer that public administration scholars stop talking about theorizing and theory in the context of validation, and exclusively ‘theorize’ in the context of discovery-oriented work (Weick 1989). Instead, our set of definitions here combines key points advocated by both sides. First, it separates constructs and models as (theoretical) output from the research activities.
producing this output (cf. Weick 1989). Second, it retains the ‘theorizing’ notion for the purpose of validation-oriented research (Shapira 2011), while providing a separate terminology for discovery-oriented research activities. Theorizing may thus involve, for example, codifying a particular value, using constructs and models to explain how or why something has happened (or instantiated), or using principles to brainstorm and speculate about whether an envisioned instantiation is likely to work.

Figure 2. Research activities/methods: creating, evaluating, theorizing and justifying

Map of entire territory
Together, the dimensions of research outputs and activities serve to create a map of the entire territory of public administration research and practice, conceived as a design science. Figure 3 provides a visual image of this map. Note that this is a two-dimensional map of the territory, as if it were flat, although the cyclical nature of research activities and outputs actually implies that values interact with instantiations, and ‘justifying’ activity informs and is informed by act of ‘creating’, and so forth.

Figure 3 also serves to define the design and science spaces in this territory. Although the demarcation line between the two is somewhat blurred, the bottom-left space in this map is the area where one largely focuses on design, whereas the top-right corner is the legitimate space for focusing on science. The other spaces in the map allow for work at the interface between design and science. The lack of a sharp demarcation between design and science also reflects the metaphorical nature of the notion of design science (cf. Hatchuel 2001; Romme 2003), in which design and science are highly complementary (Simon 1969).

Figure 3 also serves to emphasize that all public administration research is inherently value-driven. Awareness of the value dimension is not widespread among scholars; this is perhaps most conspicuous regarding values that (ideally) would need to guide the ‘professional’ behavior of management scholars and practitioners—for example, regarding the complementarity of (rigor in) ‘understanding’ and (relevance for) ‘use’ (Myers & Thompson
In this respect, the complementarity of distinct values such as ‘rigor’ and ‘relevance’ is best exploited by addressing each value on their own terms. That is, the call for rigorous knowledge can be effectively addressed in the Validation segment of Figure 3, whereas relevance and novelty are best addressed in the Discovery segment.

Figure 3. The landscape of public administration research and practice at the interface of science and design (adapted from: March & Smith 1995; Romme 2016)

Notably, public administration scholars often study instantiations and their settings as empirical phenomena, in the context of the Validation x Instantiations cells in Figure 3. As discussed earlier, these instantiations can be as varied as the proceedings of meetings, narratives about particular events, codes of conduct, public documents, and so forth. However, public administrators create many of these instantiations in highly ambiguous, fluid and dynamic settings, so for them these are artificial phenomena, or artifacts—especially when these instantiations are first created.

As such, the map in Figure 3 also provides ample opportunities to embrace practical and applied work as a key element of the body of knowledge on public administration. In this respect, some practitioners provide access to their reflections on these activities, for example by means of biographical reflections, blogs, or online platforms (e.g. the OECD’s Observatory of Public Sector Innovation). These insights in how public administration becomes instantiated arise from direct experience and reflection, typically without any systematically developing constructs, models and principles—but nonetheless are part of the emerging body of knowledge on public governance.
The framework in Figure 3 also serves to resolve the ambiguity of the notion of testing, discussed earlier in this paper. The notion of testing used by many scholars involves the assessment of the internal and external validity of constructs, test hypotheses (and the models these hypotheses are part of) by means of inferential statistics, and so forth; a key value embraced here is the primacy of independent observation. This notion of testing thus is positioned in the Validation segment of Figure 3 (especially regarding values, constructs and models). By contrast, others focus on political and administrative action and sensemaking as genuinely creative and context-specific acts, instead of developing and testing general knowledge claims. In Figure 3, this creative and constructivist notion of testing is largely positioned in the Instantiations x Discovery segment.

As such, Figure 3 serves as an inclusive taxonomy that embraces the entire spectrum of “testing” activities available in the field of public administration. Rather than prioritizing one over the other, this taxonomy implies one appreciates and uses a particular interpretation of testing in terms of its distinctive position in the landscape of public administration research and practice.

**Examples of Work Conducted at Design-Science Interface**

We now turn to two examples of DS-driven work, which serve to illustrate the challenges as well as benefits arising from this type of work. Both examples are congruent with the notion of experimentalist governance (discussed earlier), but take it a step further toward co-creating new governance arrangements together with practitioners. The first project involves a deliberate effort to introduce societal learning on the basis of open data in the province of Groningen. The second example involves a project in which the political culture of the city of Utrechtse Heuvelrug was transformed toward consent-based collaboration.

**Example 1: Societal learning on the basis of open data**

Traditionally, various kinds of data are used by government agencies to develop policy plans and interventions. In that sense, the data aim to contribute to the rationality of government and the adequacy of government plans, and good data are therefore seen as a crucial resource for government. Moreover, new internet-technologies and a changing culture of openness have resulted in a push for open data. Open data is expected to strengthen the transparency of government, but also to facilitate collaborations between governments and societal actors. These collaborations, however, prove difficult to realize. Our instantiated intervention aimed to develop a new form of societal learning between societal actors and governments on the basis of open data. We conducted this intervention in the Dutch Province of Groningen. The remainder of this subsection draws on Ruijer and Meijer (2017).

Like many rural provinces in Europe, the Province of Groningen faces major problems arising from the structural decline of its population, such as declining public facilities and limited economic opportunities. The province has the ambition to work with citizen groups to find innovative solutions to tackle these problems. As researchers, we introduced the idea of working with open government data to stimulate citizen initiatives aiming at improving the
life quality of the province. This intervention was part of a European project on open data for the public sector (www.routetopa.eu). Within the context of this European project, a tool for working with open data had previously been developed. The key ambition of the intervention in Groningen was to use this tool for developing new forms of collaboration between government and societal actors on the basis of data about key issues.

We organized a series of workshops with government officials and citizen groups to identify key problems and relevant data sources. The problems were positioned within the broader issue of dealing with population decline, while the citizen groups raised two specific issues: setting up a home for the elderly and stimulating the circular economy. These issues were directly related to the plans of citizen groups to improve their environment in response to the broader problem of population decline. The workshops helped to shape the collaboration between the province and various civic initiatives on the basis of open data. The idea that a provincial government can stimulate civil society by providing the data and a platform for collaboration was at the heart of these interventions.

In the process, we observed that the citizen groups have a clear perspective on the data they needed for their plans, but they did not have the skills and the time to work with the data. To tackle this problem, we brought in ‘slack capacity’ in the form of students who could work in teams on assignments to answer the questions from citizens on the basis of open data from government. This experimental structure for developing a learning collaboration resulted in interesting ideas and outcomes for the citizens involved, but also the conclusion that there was a mismatch between the data offered by government and the data that was needed by citizens. The province acknowledged this problem, but lacked the administrative capacity to solve that problem on the short term. This effectively meant that the value of this new platform for open societal learning was demonstrated, but institutionalizing it further proved to be a step to far.

Our intervention stimulated a process of change in the provincial organization, but we also found out that the organization is quite resistant to change. This example highlights how discovery-driven research does not necessarily result in the changes aspired. A key issue here is timing: the ambition to realize a highly different mode of working for the province, within a time frame of several months, proved not to be realistic. At the same time, this intervention provides crucial insights in the requirements for organizational change. As such, several key barriers in realizing a vision of collaboration with citizens on the basis of open data have been identified, and alternative routes to realize these changes can now be developed.

Example 2: From competition and collusion to consent-based collaboration

Any attempt to increase participation by citizens in public governance is rather complex and challenging, also in view of the rather inert (and legally secured) institutions of representative democracy. Representative bodies such as city councils often appear to be unable to make high-quality decisions on public policy; moreover, many citizens appear to have lost trust in political institutions and their policy outcomes. In a study conducted in a Dutch municipality, Romme et al. (2017) explored whether and how the ‘informed consent’ principle can be used
to improve public policy development and decision-making. The remainder of this subsection draws on Romme et al. (2017).

In 2012, the Utrechtse Heuvelrug was facing a high level of public distrust and a disfunctional city council. Utrechtse Heuvelrug (UH), a municipality with about 50 thousand citizens in the Netherlands (close to the city of Utrecht), was created a few years earlier from a merger of five small villages. One of the first decisions of the newly formed city council, at the time, was to build a new city hall. This decision caused many citizens to distrust their local politicians. This distrust rose even further due to several other local incidents. As a result, one of the alderman had to step down and public distrust grew to an all time high. UH’s city council and mayor were thus facing enormous challenges arising from the need to restore trust as well as increase civil participation in policy decisions.

Early 2012, UH’s mayor called upon citizens to investigate options for more effective local governance. All citizens of UH were invited to volunteer to participate. A group of 15 citizens was thus formed, which named itself the ‘bridge builders’; this group included several co-authors of the (later) article by Romme et al. (2017). As a first step, the bridge builders (BB) decided to set up a number of meetings to investigate the needs of all people involved: civil servants, councillors, citizens and aldermen. Via these meetings, the BB group found there was not just one gap to bridge, but a larger number of gaps, misunderstandings, perceptions and miscommunications between all stakeholders. The BB group also studied and discussed several reports as well as several best practices in other municipalities, to define a number of key starting points for successful participation projects. These points included, for example, the involvement of all stakeholders, including those with huge stakes and opposing views and opinions, and the search for creative solutions that all participants can consent to.

Subsequently, the BB group conducted several workshops with civil servants, councillors and aldermen to jointly develop a new collaborative approach. The BB group used these workshops to introduce participants to the decision principle of informed consent (e.g. Buchanan & Tullock 1962; Romme 1999; Romme & Endenburg 2006) and familiarize them with how it can be used in making policy decisions. These sessions served to build a broader understanding and acceptance of policy making by informed consent. In April 2013, the BB group presented its report to the city council. The report included several recommendations for strengthening the connection between citizens and the municipal administration, such as:

1. Decide early on about the level of citizen participation that will be used for a specific policy issue.
2. The city council sets and defines the boundaries (e.g., budget constraints, delivery time and other conditions) for any participation process.
3. Subsequently, a project group gets the assignment to investigate the topic and decide by consent on a solution within the boundaries set by the city council; the project group is formed, based on an open call to all citizens.
4. Once the project group presents its solution, the city council only assesses if the solution proposed meets the boundaries defined earlier (see 2). If this is the case, the solution is validated.
5. If the project group cannot make a decision by informed consent within the boundaries set, the city council again has the authority to freely decide on the issue at hand.

The recommendations of the BB group were discussed in a City Council meeting that was also attended by one of the aldermen, representatives of civil servants, and several members of the BB group. The key outcome of this meeting was the decision, taken by informed consent of all participants, to launch a pilot project to obtain more practical experience.

Soon after this decision, the election of a new city council took place in March 2014. Interestingly, the eight political parties elected into the council decided by consent on the new policy program, including an agreement on major budget cuts. Evidently, this approach is fundamentally different than the common practice of majority coalitions. Inspired by this experience, the new city council also formed a new taskforce to develop a plan for a new approach toward local democracy and governance, informed by their initial experiences as well as the recommendations of the BB group. Toward the end of 2014, this taskforce delivered its report to the city council, which decided to embrace all of its recommendations. A key recommendation was to set up so-called “Thursday evening” meetings in which city councillors meets citizens to explore ideas as well as form opinions on a particular policy issue. These open meetings would enable the city council to more effectively take decisions (by consent) on issues previously explored and discussed in one or more ‘Thursday evening’ sessions. UH’s city council expected that this approach would provide more access to the expertise and ideas of citizens, and reinforces the council’s role as orchestrator of civil participation and local democracy.

This new set of practices and processes has been fully implemented as of February 2015 in the municipality of UH, and the initial results are very promising. More broadly speaking, the political culture in UH appears to have transformed from a culture characterized by collusion and competition, to one characterized by collaboration (Romme et al. 2017).

**Discussion and Conclusion**

In this paper, we advocate and illustrate a design science (DS) perspective on public administration, which embraces validation-oriented research as well as discovering and trying out new arrangements and solutions. Too much research in public administration, and more broadly institutional theory, takes existing political institutions as a fact of life, and few scholars adopt a creative design- and intervention-oriented approach (e.g. Gunnell 2006; Smith 2002). The latter type of approach is needed to make public administration scholarship more impactful and relevant to its societal stakeholders.

As such, the methodology of DS is fully congruent with the discourse on experimentalist governance, as a highly decentralized and recursive approach toward governance. This governance approach is fundamentally different from how public governance practices traditionally operate, as observed in the Background section. It calls for iterative, short-cycle design processes that are quite different from the long-cycle policy making approaches that
currently prevail in public governance (Sabel & Zeitlin 2011). Public administration scholars can help overcome the inertia of governance practices and contribute by co-designing and co-creating new arrangements as well as studying these processes and their (preliminary) outcomes.

Notably, we are not arguing that all research needs to be design-oriented. In this respect, social science-driven research into established or emerging governance practices is entirely legitimate, because it provides a deeper awareness and understanding of the (often complex) causalities and contingencies of these practices. The point is that public administration, as a field, can only grow if (at least a substantial number of) scholars deliberately engage in attempts to co-create new arrangements and solutions with practitioners (cf. Bovens 2016). If both the science and design tradition are nurtured, many new opportunities for impactful work at the interface of discovery and validation will arise.

The two studies outlined in the previous section illustrate the challenges arising from work at this interface. Both studies illustrate that practitioner-scholar partnerships enable insider-outsider research (cf. Bartunek & Louis 1996). Insider-outsider research has the overall quality of *marginality*, that is, one is neither altogether inside or altogether outside the system. In these partnerships, “the outsider’s assumptions, language, and cognitive frames are made explicit in the insider’s questions and vice-versa. The parties, in a colloquial sense, keep each other honest – or at least more conscious than a single party working alone may easily achieve” (Bartunek & Louis 1996, p. 62). An important requirement for this quality of marginality to arise is a shift in the power dynamics between scholars and practitioners, that is, the research design needs to involve the human members of those systems as active participants in the research process, rather than merely as passive subjects and respondents. This shift toward equivalence of practitioners and scholars also serves to balance discovery and validation, given that practitioners have a primary interest in discovering new instantiations while scholars’ primary focus tends to be on validating the underlying constructs, models and principles.

The two examples in the previous section also illustrate that creating institutional change is highly challenging. In this respect, the first project shows that the initial energy and commitment arising from a deliberate intervention does not easily result in institutional changes in which the new arrangements are fully adopted by practitioners. The second project, though, suggests that public institutions can be deliberately transformed, especially when key agents and stakeholders share a sense of urgency regarding the dysfunctionality of existing institutional arrangements.

In conclusion, we developed a design science perspective on research and practice in public governance, also in response to recent calls for a fundamental rethink of the apolitical character of institutional and governance research. We explored the nature of research from the perspective of design science, reviewed several examples of work at the design-science interface, and discussed the implications and prospects of future research. A key implication is that most attempts to redesign and transform public institutions are doomed to fail, when institutional scholarship does not play an active role.
References


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