

Bubbles, currents and splashes: metaphors to make sense of innovation and learning practices in the public sector¹

Isabella Brandalise 🝺 ª | Caio Werneck 🝺 b

^a RMIT University, School of Design, Melbourne, Australia

- ^b Independent researcher and practitioner, Public Management and Design, São Luís, Brazil
- * Corresponding author: isabella.brandalise@student.rmit.edu.au

ABSTRACT

This paper explores how metaphors can help create and reflect on project-based training initiatives in the public sector. We build on the experience of a capacity-building program for public servants led by the Brazilian National School of Public Administration (Enap) in 2020. We used the metaphor of a *project as a collective diving* both to design the methodology of the program, and also to analyze its effects after the end of the projects. Through conversations with project facilitators and participants, we expanded the initial metaphor, to explore how diving connects to *breathing*, a necessary condition for experimentation and learning. Additionally, we found that the project conditions were like *bubbles* and *currents*, creating a reference for understanding the relationship with the environment in which teams are embedded. Finally, we looked at the variable yet often overlooked outcomes that can be understood as *splashes*, a key metaphorical concept for discussing programs that aim to simultaneously foster public innovation and collective learning. In this paper, we present an example of metaphors acting as boundary objects, adding granularity and nuance to the inquiry into public innovation initiatives, and identifying their possible implications in relation to institutional logics and complex structures.

Keywords: Metaphors, Boundary objects, Collective learning, Design methodology, Government labs, Public sector innovation

INTRODUCTION

Pipes are not only characteristic artifacts of engineering. They are also widely used in public and private organizations, appearing as a metaphor to describe processes that require linearity, rationality and control. Besides opening up our imagination to the fantastic world of pipes and fittings, this analogy does much more than simplify language and processes. Through this association with pipes, we structure a certain way of not only understanding institutional processes, but also of talking about them and evaluating their outcomes. As also explored by Lakoff and Johnson (1980), we think and act under the influence of conceptual structures based on metaphors. This is the case with many projects and programs in the public sector that are expected to follow a particular "pipeline", conditioning their development, completion and success. Such metaphors are abundant and diverse in the public context – e.g.

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public organizations function like machines, managers are like orchestra conductors, transitions of power are the passing of batons, etc.

In this paper, we discuss the use of a metaphor to both create and make sense of design-led capacity-building initiatives for civil servants in the Brazilian context. We are drawing upon learnings from the first edition of Janela GNova, a program that the National School of Public Administration's (Enap) innovation lab (GNovaLab) carried out through projects in partnership with four teams from different areas of the Brazilian federal government in 2020. Our aim is to explore what metaphorical concepts allow for, mostly in terms of noticing effects from projects that are usually overlooked by more traditional evaluation approaches, especially by those that consider lab interventions as part of a relatively linear policy process. Based on reflections from the projects conducted by Enap, we hope to contribute with a practical case to a growing literature on public and social innovation in intersection with service design theory and practice that accounts for a systemic conceptualization of the field (Vink et al., 2021).

Following a global rise of public innovation labs in the last decade, these organizational units are receiving growing attention from scholars in public administration and design (e.g. Wellstead et al., 2021; Mcgann et al., 2018; Lewis, 2020; Kimbell & Bailey, 2017). Labs emerge in a variety of forms, sizes, focus areas and apply different methodological approaches to the rehearsal of management and policy practices (Maffei, Mortati, & Christiansen, 2018) in the face of contemporary challenges and in direct response to each specific institutional locus and conditions. Beyond such differences, a relatively widespread characteristic among labs is an organizational approach to capacity building, mostly in terms of learning by doing and applying design-led experimental methodologies. The capacity building focus is particularly strong in GNovaLab, which is a lab within Enap in Brazil, set to collectively work on public challenges through project-based learning (GNova, n.d.).

Even though labs are often created under the mandate to develop a culture of experimentation in the public sector, there is still little understanding of their actions and results, even less when considering the specificities of Latin America (Ferreira & Botero, 2020; Acevedo & Dassen, 2016; Ferrarezi et al., 2021). The legitimacy of lab initiatives is often approached by managers and civil servants with skepticism or resistance precisely due to difficulties in measuring and communicating the value they generate (Werneck et al., 2020). Questions like "so, did it work?", directed to lab projects, look for responses in a linear perspective of the implementation of a "thing". Besides the reductionism that this view encapsulates, it often does not acknowledge more diffuse effects and conditions of such projects, in resonance with the complexities of institutional logics and real-life applications of design methods (Akama, 2009) beyond decontextualized toolkits and playbooks, still predominant in fields of service design and public innovation (Vink et al., 2021).

Given such circumstances, we deployed the metaphor of *diving* as a boundary object (Star, 1989) in the design and analysis of the Janela GNova program. Our aim was at contributing to a more nuanced conversation about possible outcomes of initiatives focused on collective learning in the context of the public sector. Metaphors, devices to understand one thing in terms of another (Lakoff & Johnson, 1980), have been commonly employed in the field of service design since its early stages (from the traditional backstage and front stage, to more exploratory accounts, as in Holmlid & Korper in ServDes.2020, 2021), mostly because service experiences tend to be intangible, heterogeneous and ambiguous. A metaphor can work as a

thinking structure that directs the attention and creates a shared understanding of what is possible. In that way, we hope to bring a critical perspective on the metaphors we design by, understanding their affordances and limitations.

Almost two years after the experience of the Janela GNova, we approached the conversation about outcomes at the program level rather than from the specific results of a single project or individual development of skills. We examined dimensions such as safe conditions for experimentation, for the adoption of new work practices and for the institutionalization of initiatives. Looking for meaningful similarities in such a diverse set of projects that participated in the program, in both topic and scope, but also organizational culture and team configuration, has allowed us to find context-specific responses to a shared journey. Following and expanding the metaphor that guided the methodology, we approached the effects of the program as *water splashes* from a dive, understanding *waves* and *ripples* in a movement between the scales of artifacts, services, policies and systems. The idea of splashes recognizes the immense variety of shapes and sizes of effects that might appear in different moments of the process, while adopting a humble and honest attitude to non-direct relationships of causality in multi-actor organizational dynamics and interdependencies.

We begin by contextualizing the metaphorical approach we took in the Janela GNova program, and how it can act as a boundary object (Star, 1989). We follow with a description of the context of the program, and how we applied the metaphor both in terms of the methodology we adopted and in how we analyzed the effects of the program. We then present further understandings facilitated by the metaphor, including the project environment as *bubbles*, the adoption of new work practices as *currents* and signs of institutional change as *splashes*, discussing the observed reverberation of the artifacts and services created in the projects towards the scale of policies and systems, as well as what enabled their emergence. We conclude with expected contributions, limitations and possibilities for future inquiry.

1. METAPHORS AS METHODOLOGY

Deixe a meta do poeta, não discuta Deixe a sua meta fora da disputa Meta dentro e fora, lata absoluta Deixe-a simplesmente metáfora (Gilberto Gil, 1982)

Leave the poet's goal, do not argue Leave your goal out of contention Goal in and out, absolute can Let it simply be a metaphor (Gilberto Gil, 1982)

Often associated with imagination and extraordinary thoughts, metaphors are actually present in our conceptual systems, influencing the way we think and act in the ordinary sphere of life (Lakoff & Johnson, 1980). In that sense, metaphors can be effective as a vehicle for building new concepts within public institutions and their processes, especially when they help facilitate conversations that bring together diverse experiences through a common language (Werneck et al., 2020). Similar to the popular use of metaphors in service design,

there are many examples of metaphorical relations to describe organizational forms (Morgan, 1980), with extensive influence both in management theory and practice.

As mentioned, in Janela GNova, we began using metaphors with the notion that *experimenting is like diving*. Challenging technocratic associations of public organizations with machines and assembly lines, and taking advantage of the relatively widespread analogy of *immersion* in design projects, each stage of the project was associated with instruments or situations of a dive. In line with Lakoff and Johnson's proposition (1980), our aim was to understand and experience one thing, i.e. *to experiment in the public sector*, in terms of another, i.e. *to dive into the water*, making it easier for participants, facilitators and project managers to understand the methodology as they carried out their design project.

Beyond using the metaphor as a learning arch for the participants' experience (Kavanagh, 2019), we stretched it into the analysis of outcomes, generating reflections to make sense of what we lived together. One year after Janela GNova ended, we were invited to write a report about the program. Besides a mere documentation of methods and the four cases, we saw it as an opportunity to address one of the key challenges for contemporary public management: capturing, measuring and understanding the outcomes of innovation programs.

From there, the diving metaphor worked for us as a boundary object. Following Susan Leigh Star's (1989) concept of boundary objects, the metaphor was a way to create shared meanings in collaborative work that reunited a heterogeneous group of people with divergent viewpoints. It was at the same time situated to the specific shared experience of the program's participants, respecting local contingencies, but also allowing for cross-site and cross-discipline translations (e.g. public innovation and service design communities of practice), as there is a common imaginary of what a generic process of diving encompasses. This approach resonates with analogous uses of boundary objects in contexts in which design facilitates interdisciplinary work while still preserving diverse meanings attributed by participants (Tharchen et al, 2020), or in capacity building policies (Emad & Roth, 2009).

2. DIVING AND BREATHING

2.1. The Janela GNova program

While we were waiting for the start of one of the virtual meetings coordinated by the members of the GNovaLab, in the first months of the Covid-19 pandemic in 2020, a federal judge of a Brazilian Court (TRF1) told us about the advances in the digitization agenda of conciliation hearings, a fundamental step to expand the rate of case resolution of the Brazilian Judiciary. Meanwhile, a group of engineers, managers and communicators of the National Agency of Water and Sanitation (ANA) was concerned about the lack of understanding of the general public on the role of this regulatory agency, precisely in the year in which it celebrated twenty years of existence. In another branch of the federal government, civil servants from different areas of the Ministry of Justice looked at seven logic models that pointed to the challenges of implementing the national policy of missing persons. At the Ministry of Economy, an innovation team from the Department of Personnel Management was concerned with the effects that the pandemic would generate on the quality of work life of civil servants, especially in the emergency implementation of a remote work regime.

These four scenes, mediated by screens, give us a taste of what we found at the start of Janela GNova, in June 2020 (more details of projects and program at Brandalise & Werneck, 2022). Mostly directly from their houses, about forty civil servants from diverse branches of the Brazilian public sector participated in the program. Janela GNova came into existence with the objective of building design and innovation capacities for civil servants through short projects in the federal government. To do so, the GNovaLab team selected four teams from various policy and service areas to be supported by the program. A dedicated team was formed for each project, and included both people from the government areas that submitted the project, as well as members from GNovaLab, who had experience in applying design-led methods in public sector initiatives. The authors of this paper were consultants dedicated to the development and application, alongside the GNovaLab team, of a common methodological process to be shared by the four project teams.

The start of the program coincided with the beginning of the Covid-19 pandemic. Besides the high degree of uncertainty of the situation, it was the first experience of working remotely for many of the participants, which required radical adaptations in the methodology. Aware that a simple transposition of methods to online formats would be incompatible with people's availability, levels of attention and fatigue, we were guided by experimental, collaborative, and agile principles to redesign the process for the new conditions. Our aim was to be able to quickly test and learn with the people involved, and make adjustments as we carried out the process. It required the adoption of alternative management rites in-between sessions as well, to keep different teams connected yet without adding new work meetings.

We designed the methodology by building on experimentation approaches previously adopted by the GNovaLab team (Ferrarezi et al., 2018; Ferrarezi & Lemos, 2018), prioritizing simplicity and modularity. Therefore, the process was divided into two cycles, each focusing on a predominant way of working (exploring and making) and divided into five stages. Each stage had a mission to guide the work and establish the creation of intermediate and interconnected deliverables.

2.2. Designing the program's methodology through the diving metaphor

We borrowed from the idea of a boundary object (Star, 1989) to establish a narrative thread between the stages, as well as to create a common language shared by the four different project teams. We did that by expanding on the diving metaphor in the design of each methodological cycle. We counted with customized illustrations by a member of GNovaLab to give concreteness to the concepts-in-action, making them more accessible and evocative.

The first cycle focused on *exploring*, which was a process of *collectively diving into the context of the public challenge* by each of the teams. We began this cycle with gathering existing data to prepare and calibrate the focus for fieldwork. Then, the government teams *entered the water*, interacting with people affected by the issue through qualitative research approaches, and collecting relevant evidence to deepen the understanding of the situation. The second cycle focused on *making*, and meant creating something tangible that could serve as a reference point for the team to approach the issue and interact with the environment. In the second cycle, the dive was associated with testing. The teams were guided by insights gathered in the first dive to *create and take prototypes into the water*, in order to interact with and learn from people potentially affected by it in everyday life.

EXPLORING CYCLE



Figure 1. Diving cycles and stages. Illustrations by Arthur Pomnitz.

We encouraged the framing of projects to be in the scale of an artifact or service, in order to bring the issue closer to the field of possibilities of action of the teams, and to point to concrete outcomes at the scale of public policy or systems. The diagram below demonstrates the interconnected scales of the program: artifacts, services, policies, and systems (inspired by Young et al., 2001). Within the diving metaphor, these can be seen as dimensions of ripple waves. When we talk about artifacts, we are referring to tangible products, points of contact between an audience and a service or public policy offering, and it is the most concrete and specific scale of our diagram. Services consist of experiences comprising different situations and artifacts arranged in a temporal sequence. Public policy potentially involves different services and coordinated actions to achieve a certain public effect. Systems, the broadest scale in the diagram, comprehend all the other elements and are configured as a set of relationships among components – policies, services, artifacts – intertwined with multiple actors. The navigation between micro and macro scales was especially relevant in the moments of strategic reflection with the teams, when thinking of concrete actions without losing sight of a broad view of each issue.



Figure 2. Project scales as rippling wave effects of the Janela GNova program.

2.3. Analyzing the program through breaths

To make sense of what happened with the projects after the Janela GNova program, we conducted group interview sessions with participants from each project. Our aim was to collect material to write cases and produce cross-cutting reflections about their implementation. We did not intend to formally evaluate the projects nor the program, but to explore new dimensions for comprehending the effects of programs alike. We were not yet aware of the new possibilities of the metaphor at this stage, after we had returned from the diving cycles.

As we collected perspectives from the teams on the meaning and effects of the experience, we had several sensemaking workshops and conversations with the lab's team. Through this process, we identified many different dimensions and evidence of the program's effects that are apparently difficult to notice and capture. Therefore, we brought back the metaphor of diving, working as a boundary object to help us further extrapolate on the learnings collectively and without recurring to traditional logics and languages of evaluation. By doing so, it was possible to bring onboard people from different organizations, fields and roles without engaging in epistemological debates about policy evaluation. We took advantage of the fact that being underwater allows for new logics to take place, influencing the direction of movement and the interplay of gravity, visibility etc.

During the program, we facilitated sessions after each of the cycles, creating moments of reflection-in-action, in a reference to Donald Schön's (1984) approach to reflective practice. As we revisited the documented material, and interacted with participants more than a year after the program was over, we relied on a different mode of reflection, i.e. reflection-on-action. At this moment we understood that *reflecting is like breathing*, be it underwater or when returning to the surface. It is a necessary condition for the practice of experimentation in the public sector. The association of reflecting with breathing has allowed us to further

extrapolate from the findings of the analysis, giving language to perceptions about the project, its conditions and outcomes – or what we came to talk about in terms of *bubbles, currents* and *splashes*.

3. BUBBLES, CURRENTS AND SPLASHES

The reflective breathing exercises changed the way we saw the projects, their conditions for successful unfolding and possible outcomes. In this section, we bring some of the main insights identified from the diving analogy, presented here as new concepts based on the deployment of the metaphor as methodology.

3.1. Bubbles

By observing the mutual influence between teams and the institutional culture and structures in which they were embedded, we came across the idea of *the project as a bubble*. Resembling a bubble, each design-led project aimed at creating safe conditions for experimentation and learning. The layer that separates context and project is so thin that sometimes one can not even notice it. A bubble is a temporary space, permeable and translucent, able to move into different directions in non-linear trajectories. In essence, the program format sought to generate a sense of protection, while at the same time the team continued to live and interact with its surroundings. This permeability to the context proved to be a very effective attribute to induce learning not to be restricted to an environment detached from reality. On the contrary, during the months that people participated in the program, there were exchanges between the inside and outside of this bubble, exercising the team's ability to absorb and translate new practices of experimental, agile, and collaborative work. However, the existence of the bubble needs to be protected at times when the pressure from the surroundings is so strong that it can precipitously break through its wall – which is made, after all, of ephemeral and fragile matter - with the risk that the everyday imposes itself on the learning space, compromising its safe and bounded condition.

3.2. Currents

A project participant told us: "Now I don't launch any product, not even an internal one, without testing it". The creation of a common repertoire of prototyping and testing practices made it possible not only for this specific participant to change her ways of working, but also involve more people from the organization. The adoption of such practices – incorporating methods, attitudes and languages – after the projects are finished relate to the logic of water currents. When underwater, things move according to different streams which, in the case of the public sector, are usually informed by knowledge fields such as law, economics, social sciences and management, but also by practice fields such as participatory design, open government, plain language etc. After the experience of Janela GNova, some teams adopted a set of design-led practices that became as strong as currents, exerting influence over how other teams in that same organization do their work. Based on the expertise accumulated through the program, teams incorporated and disseminated practices such as facilitating online workshops, framing problems or testing ideas with people affected by the issues in question. The development of innovation skills begins at the individual level; however, the more incorporated into the collective memory, the stronger are the chances of extrapolating its individual use. Beyond proposing specific techniques to be learned by a single person, the

program contributed to creating a shared and situated repertoire. In that way, more than trying to find the best diving equipment – an analogy for tools and techniques, for example – teams started to *feel more comfortable in being underwater*, simply incorporating experimental practices into their work routines. These work practices do not necessarily generate direct results for policies and systems; however, as *shifting currents*, they can function as enablers of wider effects.

3.3. Splashes

Some participants told us that processes of institutional transformation started to take place after the program was over. We received highly diverse responses in terms of the types and formats of outcomes. Following the metaphor, we understood such diffuse outcomes observed as *water splashes* that spread after diving. Splashes are not directly generated by the program, but are observed within the timeframe of the after-project, in varied sizes and shapes. They tend to be less tangible, gaining visibility with distance and a closer investigation of aspects that exceed or escape the linear sequence between design and implementation. We return to the ripple diagram to explore different conceptions of splashes in terms of the effects of the program.



Splashes

Figure 3. Splashes as evidence of collective learning.

The development and implementation of the final delivery of a project is a more straightforward conception of success. It points to the effects in a linear continuum, assessed through evaluation metrics to check if the project "worked". In the diagram, this idea is represented by the movement of the arrow that departs from each initiatives' entry point, linking to the further development of the intervention that was created by each team within

the Janela GNova program. This is an important dimension of an outcome, because it attests that projects focused on learning can also bring concrete outcomes in terms of implementation of planned interventions. An illustration of these effects was the creation of the National Policy for Missing Persons, the Plain Language Action Plan, the guidelines for the regulation of non-face-to-face work, and the expansion of the new procedural rite of conciliation for special cases of social security.

Beyond such outcomes, which are more commonly explored in the literature of the fields of public administration, social and service design, we are interested in elaborating on the splashes that we noticed. These are events that might indicate evidence of collective learning often overlooked or disregarded as non-related to the design process. In a preliminary attempt and in reference to the diagram, we looked at the areas surrounding the arrows, trying to identify splashes (lilac dots) that emerge in different formats and sizes, more or less related to the movement of the project through the path of its development and implementation.

The effects at the scale of public policy or systems, often less clear, can also indicate some continuity from the entry point of the project. These are institutional splashes, and evidence the incorporation of project effects and learning by the organization over time, which could be more related to the projects themselves or to the currents they generated through new work practices. Splashes are associated with what happened in the Janela GNova, but go beyond the linearity characteristic of programs in the public sector, frequently represented in the form of ducts and tubes that lead all through the same flow. One participant from a partner team reported: "What I see is that what we formulate is not always exactly what will end up in the 'final thing', but it would never exist without this initiative [...] and the insights that we identified are being implemented over time... Some already have been, some still will be". An example was the use of intermediate products of the process – such as the return to the fieldwork insights mapped in the Ministry of Economy project – which became a key reference to help the team develop new initiatives after the project, exploring possibilities in addition to the focus initially given.

We also observed manifestations of institutionalization by the project teams based on their own local conditions. These movements mean a dialogue with an organization's culture and available resources, such as the creation of normative acts, plans, positions, and administrative rites. Here we can cite the Ministry of Justice team, which highlighted the creation of a specific position in the formal structure as an important victory to institutionalize the Missing Persons policy. Signs like this show incremental change brought about by the projects' actions. In other cases, we noticed even more profound changes, or what the ANA project team named as "a true institutional transformation", including the creation of new products and normative acts with special attention to effective communication with the public, and the incorporation of experimental ways of working in the routine of ANA's teams.

4. CONCLUSION

In this text we presented the use of the metaphor of diving in the creation of the training program Janela GNova, seeking to explore new possibilities for visualizing, understanding and amplifying the effects of programs focused on collective learning.

Inspired by the concept of a boundary object, which is "plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites" (Star, 1989, p. 46), the metaphor allowed us to design a shared

process, creating a common language between groups of participants from different careers and areas of the federal public service, as well as to evaluate it, reconciling evidence from heterogeneous sources. In this way, the metaphor created a reflexive process that recognizes the "diverse spatialities and temporalities that are at play in the outcomes of designing and examining how responsibilities for these outcomes are identified, negotiated, and assessed" (Julier & Kimbell, 2019, p. 21).

In addition to connecting different professional profiles and areas of government throughout the program, the metaphor created common ground for dealing with the communication difficulty often experienced by the contrast between design terminologies (often untranslated Anglophone terms such as blueprint, toolkit, canvas and sprint) and the everyday language used by civil servants in the Brazilian public sector. Furthermore, we can argue that the metaphor functioned as an *interactive* boundary object (Tharchen et al., 2020), allowing different structures of meaning to coexist and co-inform participants of diverse worldviews and perspectives, but not in a fixed and deterministic way. Instead, it offered a context for interdisciplinary collaborative work, as well as opportunities for imagination, investigation and action through its open and generative qualities.

As mentioned in the introduction, there is a growing demand for the evaluation of government labs, which are often skeptically analyzed using traditional methods and linear perspectives. Generally associating the work process with assembly lines, these views impoverish the possibilities of exploring emerging results and understandings about the success of initiatives focused on learning in the public sector. Adopting an imaginative metaphor allowed us to identify more granular and generally overlooked results. The preliminary results presented helped us to identify splashes as outcomes, and bubbles and currents as conditions. From there, we see opportunities to explore more terms and ideas constructed from the proposed metaphor, as well as other explorations in the metaphorical sphere that can give more nuance to projects and research on this topic.

In a complementary way, there seem to be important cultural changes associated not only with splashes, but above all with the idea of currents. We arrived at this concept as a condition for success, i.e. currents can influence the context of the projects, which led to broader changes in the way that team or organization works. However, currents could also be seen as effects of projects, since collective learning can strengthen certain practices and behaviours within the organization. In this sense, there is a fertile field of development around approaches to improve our ability to identify, measure and monitor these currents. In the context of government action, mobilizing communities of civil servants around the practices proposed in a training program can enhance the effects of creating structures dedicated to developing and disseminating these practices.

As concepts that are situated and in use, we note that metaphors have their limits and require a balance to be used critically and "just enough". We noticed that when the metaphor was overused, or at times when it became the center of the conversation, it started to become dysfunctional. In these situations, people began to translate what they were doing into metaphorical language. Almost like a replicable toolbox (Townsend, 2016), there is a risk of it becoming a mere instrument of engagement and spectacle.

Furthermore, it is important to emphasize that metaphors are necessarily partial lenses. They allow us to see something in terms of another, which implies that we leave elements out of that system of knowledge – otherwise the metaphor loses its meaning. Just as in the

relationship between maps and territories, a concept cannot be total, otherwise it would in fact be the other, and not a way of understanding the other (Lakoff & Johnson, 1980). In addition to metaphorical understandings, we encourage experimentation with complementary methods and approaches to conceptualizing and evaluating project-based training programs, in order to find other granularities and angles of analysis that may be more appropriate to each specific context.

This process also allowed us to expand our understanding of government initiatives, which need to be attuned to the diversity of institutional logics and multi-stakeholder structures in order to be effective. By analyzing the scales at which the Janela GNova program operated through the reverberation diagram, we confirmed the need for "a more nuanced understanding of the characteristics of institutional arrangements as design materials and the implications of those characteristics on how actors can intentionally shape them" (Vink et al., 2021, p. 180).

Finally, we hope to contribute with this case study of a public innovation lab in Brazil to new explorations of reflective metaphors as a methodology for designing, implementing and evaluating innovation and learning initiatives in the public sector.

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