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The challenging role of policy labs in public sector organizations: designing for more responsive systems (or organizations)

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ABSTRACT

Design has emerged as a discipline equipped to tackle the complex problems of the 21st century, primarily for its human-centered and experimentation approach and participative qualities. Through the discussion of a case study of a government design lab, formerly inside the Finnish Immigration Service, the question of how design can help public sector organizations better respond to their pressing needs is addressed, in an attempt to explore the value of design as it is being used by the increasing population of policy labs in governments across Europe. While these labs have been charged to bring innovation to government, there are several factors that hinder their roles as “challengers” of the system. Given the temporal constraints and limited decision-making power of policy labs, cultivating a culture of design has been identified by the authors as a promising outcome, acting as a generative tool for organizational change through its capacity to mediate between the production and consumption of products/services.

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1. Introduction

Design is being integrated in public sector organizations mainly to introduce a human-centered and experimentation approach to governing and creating public value. It is entering the public sector predominantly through innovation labs located inside or outside public sector organizations. While prominent examples, such as Policy Lab UK, can be found of labs using design to inform policy, for example through foresight and scenario building, the majority of labs work on implementing existing policies (McGann, Blomkamp, and Lewis 2018). Parallel to this, we can see two areas of design in the public sector: policy design and public service design, that experiments with existing policies. Regarding the former, Bason (2014) positions design practice as offering a different way to understand policy problems through a focus on a multi-actor

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and situated approach that makes policy tangible. In terms of the latter, Mintrom and Thomas (2018, p. 313) view design thinking, through its use of iterative, context-based innovation, as a way to help close the gap between policies and how they are experienced by citizens as they interact with public services. This is particularly important given that the failure to design for the contexts in which policy is meant to be implemented can lead to dramatic differences in the outcomes of policies across localities (Howlett and Rayner 2007; Mintrom and Thomas 2018). In both, the participatory and human-(user-)centered focus of design are celebrated as offering a new way to (co-)define, (co-)create, and (co-)produce public value (Blomkamp 2018; Junginger, 2013, 2013; McGann, Blomkamp, and Lewis 2018). The paper seeks to address how public sector organizations are introducing a human-centered design approach and specifically if it is contributing toward transformational changes within the organization in lasting ways.

Through design, governments are therefore seeking to provide citizen-centered services but also services that have been in part co-designed with citizens. In this regard, design work in the public sector can be seen as bringing in a user-centered approach to building services, based on citizen needs as they emerge in their life sphere. This approach encourages public sector organizations to take a deep look into the lives of citizens and provide value as it is needed rather than seeking to do more of what they already do. In other words, the challenge is to create the value proposition based on the citizen's real need – often in relation to other services coming from other agencies – and then to align internal processes accordingly. This provides an interesting perspective for innovation in the public sector, given the fragmented nature of its supply – i.e. the numerous agencies that are involved in satisfying public needs – by encouraging the sector to look at how citizens use public services in response to life events (e.g. a homeless person might be in need of more than just a house, but of a job, health assistance, skill training, etc. that engage a wide variety of institutional actors).

These types of interventions, however, must go beyond a cosmetic use of design that seeks to merely make services look better. A quick example of such initiatives can be seen in digitalization initiatives that merely change the visual identity of the website without changing the offer or re-organizing content and flow to improve the experience of citizens or make their journeys easier (Deserti, Rizzo, 2015). Other examples, can be found in design experiments that improve communication but that fail to integrate user needs or truly improve the service in systematic ways. These efforts, in other words, fail to re-design services based on a re-framing of the problem but rather employ design tools to embellish or re-market existing services. This is in part facilitated by the separation of policymaking and policy implementation (Junginger, 2013; Mintrom and Luetjens 2016). In these superficial measures, the strategic potential of design in preparing public sector organizations to face emerging challenges is lost and is replaced by one-off experiments that create the illusion of citizen engagement. As will be seen in the case and discussion below, episodic use of design – by failing to engage in strategic design – hinders transformative change. This is in line with how innovation in the public sector has been described in literature: as being episodic (Sørensen and Torfing 2011, p. 847), “driven by *accidental events* that do not leave public organizations with a lasting capacity to innovate (Eggers & Singh, 2009)”. The

risk is exacerbated by the location of design knowledge and competencies in the public sector, which are often structurally separated. This renders it very difficult for design knowledge to make any transformational impact and risks expectations of system actors to be left unmet.

A disconnect can hence be observed between the two spaces: the design space where new knowledge, competences and ways of doing things are being created – i.e. the generation of a new culture – and where the everyday working practices of the organization take place. This separation endangers the long-term impact of design experimentation. This brings into question the value of keeping these labs as “safe spaces” (Carstensen and Bason 2012; Mulgan 2014; Tõnurist, Kattel, and Lember 2017) in which to test disruptive change as they may prevent the practices from spreading into the wider organization. At the same time, given the specific qualities of the public sector, focusing solely on the user is only a partial measure to design effective public services. As reminded by Buchanan (2015), the experience of a service and thereby an organization comprises all those who are served by the organization. This includes public managers and front-line staff who are often bounded by the rules, regulations and bureaucracy that protect the values and role that characterize the sector. This speaks to the limits of focusing solely on the final user’s experience as these services are, in reality, experienced and at times even co-produced by a wide range of actors from internal staff to outside providers to different actors connected to the final user (e.g. caregivers, family members, etc.). Design in the public sector, therefore, cannot be solely user-centered but human-centered, integrating bottom-up and top-down expectations, needs and constraints.

In this context, a focus on the design culture of public sector organizations could emerge as a generative tool for co-designing public value, and in an age of ever more networked organizations, this could extend to the entire service system. A design culture approach unites user-centered and organization-centric perspectives into a single frame by mediating between both the provider’s and the citizen’s worlds, assuming a joint-perspective on the contexts that inform its design, from the “outside-in” and “the inside-out”. It is embodied in the knowledge, skills, competences and practices of an organization that shape its “way of doing things” in a context-dependent manner (Deserti & Rizzo, 2014; Bertola and Teixeira 2003; Buchanan and Margolin 1995; Pizzocaro 2000). In short, the process of co-designing services through a human-centered design process could allow for a new or more evolved design culture to emerge and take shape and eventually influence a change in the culture of public sector organizations and the surrounding ecosystem. The paper investigates this issue by analyzing a case of an internal PSI lab in the Finnish Immigration Service. More specifically, the paper will address the following two questions: (1) how is design being used in internal public sector innovation labs and for what objectives?; and (2) how do design outcomes contribute to the transformation of public sector organizations?

2. Data and methods

The research used a descriptive case study approach, supported by a review of literature. The case study method was chosen as a research frame particularly appropriate

for examining a contemporary phenomenon within its real-life context during its evolution, when boundaries are blurred and not so clearly defined (Yin 2014, p. 13). The authors adopted a qualitative approach with the aim of exploring a real-life, contemporary bounded system (a case) over time, through a detailed and in-depth data collection involving several sources of information (Creswell 2013, p. 97).

This qualitative approach is useful for answering “how” and “why” questions (Yin 2014). The questions examined here were: “How is design being used in an internal public sector innovation lab and why?” and “How do design outcomes contribute to the transformation of public sector organizations?”. It is important to acknowledge the limited capacity of a single-entity case study to provide generalizable lessons. The results instead are qualitative and allow for detailed insight and lessons useful for inferring or explaining other similar and parallel happenings (King, Keohane, and Verba 1994). Therefore, in order to protect the reliability and validity of the study, it is essential for diverse perspectives to be represented and to connect the research findings in theory and other relevant comparative data (Yin 2014).

The data came from three primary sources. To start, the first author engaged in deep qualitative desk research (Denzin and Lincoln 2011; Strauss and Corbin 1990) of the materials produced by the lab and its employees and collaborators during its activity. This material, mainly coming from posts on the lab’s website or posts on the lab’s blog, provided detailed and useful information on the lab, the projects they engaged in and the specific details of the two projects that were the focus of the case study: *Kamu* and *Starting up Smoothly*. The second source of desk research came from two master theses produced from two internships at the lab. These outputs provided knowledge on the structure of the lab and specific, internal details on the lab’s actions inside the organization, which were more difficult to obtain and discern from the data coming from the first data collection source. It should be remarked that the extensive blogging and the master theses done on this case, made it unique in terms of the quantity and quality of information on the lab, which do not all document their work in such a thorough and open manner. Lastly, and most significantly, the majority of the case knowledge came from the lab’s Director (while in Migri), Mariana Salgado, who is one of the coauthors of the paper. The first step in integrating her knowledge came in the form of a narrative interview, conducted by the first author, that was complemented by the findings from the desk research. A narrative interview (Kleverbeck and Terstriep 2017) is conducted with the initiator, respectively the head of the organization, who represents the most important person in the innovation process. The structure of a narration is action-oriented: a context is given (i.e. the lab), the events are sequential (i.e. story of the innovation process) and it ends at a particular point (i.e. the implementation/adoption of the innovation – chatbot(s)). Using this form of interview, valuable in-depth information can be collected; in turn, the information may be biased by subjective assessments (Natow 2020). This process allowed for an “outside” analysis to complement the meta-level analysis provided by Salgado, which informed the discussion and the conclusions of the findings.

3. Case background: Inland design

3.1. Context, history of lab and main role

Inland Design was (in operation in Migri from 2017 until 2019) the design and innovation lab inside the Digital Service unit of Finland's Immigration Service, *Maahanmuuttovirasto*, officially abbreviated to Migri. Inland's mission was to co-design new solutions within Migri to improve the immigrant experience through empathy, experimentation and technology. In the beginning, the team was composed of two (service) designers, who were also Migri employees on a 2.5 year contract. Later on, the lab hired a third, visual and service designer and had three interns, in different periods, for 6-month stays. While the lab is no longer hosted inside Migri, Inland Design still continues its work to transform the Finnish Public Service system. Since 2020, it has become a part of the Ministry of the Interior. Despite the change in location, its mission has remained untouched: to promote organizational change and initiate projects with social impact.

Finland's long track record of design experiments in the public arena (e.g. Sitra's Helsinki Design Lab from 2009 to 2013, "Design for Government" course at Aalto University, who together with Demos Helsinki and Avanto Helsinki designed a human-centered model of experimentation in government, Governments for the Future project from 2012 to 2014, Sipilä's "Finland, a Land of Solutions" Strategic Program and Experimental Finland platform, the State Treasury's D9 group from 2016 to 2018, the opening of a Chief Design Officer position at the Helsinki municipality and its Helsinki Lab, etc.) have served to legitimize design thinking as a way to bring a new way of doing and thinking into government. This impetus paved the way for two leaders inside Migri's digital services team to identify it as a means to bring change to Migri's operational procedures and organizational culture. In 2017, they founded Inland Design as an internal design and innovation lab. Inland was created to bring change to Migri's way of working, especially in response to mounting pressures to digitalize public services and keep up with disruptive technological breakthroughs. The first steps toward this were taken in March 2017 by consulting with Fjord Helsinki – a prominent, international design agency – on how to get things started, build the concept behind the lab, the brand and visual identity, and to launch four pilot projects in Migri to demonstrate and test what design could do for them (Swan 2018, p. 38). The collaboration with Fjord demonstrates the serious effort and investment that was given to the initiative. As the lab was meant to introduce new ways of doing things, a new mindset and ultimately a new working culture, it was made distinct from the rest of the organization in its visual identity and brand. While the distinction granted Inland Design the freedom to "be different", it also challenged the legitimacy of Inland within Migri. The internal distinction, or separation, added a layer of "foreignness", and it was perceived as not conforming to the values and norms of the organization (Swan 2018, p. 119).

While in Migri, Inland's activities fell under four main strategic objectives: (1) to co-create new services with other public agencies; (2) to initiate new projects with/for internal units in Migri; (3) to bring an experimental culture to Migri; and (4) to spread a human-centered approach throughout the organization. Inland's activities are divided

into two typologies that serve the different objectives: project work which carries out the first two objectives and initiatives which carry out the latter two. An example of their project work will be explored below, while examples of their soft initiatives can be seen in their Service Design Ambassador program: a 1-year long training course for civil servants in design competences, in which participants advance their own projects through the help of course instructors and training modules. In the first edition, each participant had to dedicate 160 hours total through monthly, day-long workshops and monthly “homework” days in which participants were given readings and tasks to advance their projects. The course trained 28 ambassadors who have taken what they have learned and applied it in other contexts. Other initiatives that seek to promote the use of design competences in Migri’s working practices include: “road trips” to other Migri offices in which ideation workshops are held; “10 ideas for your unit” to start collaborating with different units; “user research workshops”; design lunches with top managers; and many other initiatives that also brought design knowledge in from the local universities. Examples of these were the possibility for master students to come to work in the lab for 6 months or implementing courses doing design work in relation to the organizations’ services. In this last case, Inland was the hub, being the intermediary between the university and the organization. Thus, as can be seen, Inland designed many types and forms of solutions from tangible services and products to softer solutions that seek to create a cultural change in the working practices and mentality of Migri and its employees. Overall, Inland developed four operating models, in which the role of the lab changed based on the needs of Migri’s different teams, allowing it to flexibly adapt to organizational needs and serve it better (Salgado and Miessner 2019). The four models are as follows:

1. from leading to consulting in which Inland takes an idea given to them from another Migri team or an immigrant and is the expert lead. Through the process, Inland eventually fades out to become a project partner or consultant. An example of this is the chatbot project which will be explored below.
2. participating, in which projects are led by other units and Inland brings in its service design expertise.
3. consulting, in which Inland starts and remains a consultant, never entering as a formal part of the team.
4. and finally, building space for collaboration, in which Inland functions as a connector between design expertise coming from different stakeholders: academia, NGOs, other public agencies or even different teams in Migri (Salgado and Miessner 2019).

In its work, Inland has included Migri employees from various units, employees from different agencies, immigrants, and other system users. Other actors are involved in different phases depending on their relevance to the particular development phase. For example, when working with other agencies on joint projects, leaders from the different agencies are immediately engaged in framing the problem and creating the design brief; users are often engaged in user research/problem framing and prototyping phases; and employees are often engaged throughout the whole process. Depending on

the operational model, the role of Inland in project development could be more dominant as the leader (with their role ideally fading over time) or less dominant as a project participant. After the creation of the design ambassador network, Inland also took the role of consultants, as colleagues in Migri decided to start their own design projects and ask for advice on key moments.

3.2. Kamu, migri's chatbot: an example of inland design's design process

When Inland began in August 2017, Migri provided the team with visions and a map of prioritized goals and objectives to improve their services and upon which to focus project work (Salgado and Miessner 2017b). Based on these initial sessions focused on where the team would like to go and the problems at hand, a project to strengthen customer service was identified. The design team started with a statistical analysis, whose main input was that from January to March 2017, only 21% of phone calls were answered. The first step made was to conduct interviews with the customer service workers about the most frequent topics in the conversations. The results were that customers usually asked questions concerning:

- a. general information available on the public migri.fi-website; and
- b. inquiries on application status, which required the customer to be identified, which by phone was a long process (1 to 5 mins).

Based on these insights, the team decided that the solution was to lower the number of calls received per day by improving access to key information through a virtual assistant (chatbot), named Kamu, and a live chat. In order to guarantee that the chatbot's content was relevant and would actually reduce the number of phone calls, it was important to co-design the bot with the customer service staff. In September 2017, Inland spent three days in Kuhmo, Migri's sites customer service call center. During this session, the design team learned a lot about the everyday work of the staff: what challenges they face, the importance of involving them in content generation and that the staff is often frustrated with other Migri units who often fail to respond to their requests. This confirmed the poor interaction between the units (Salgado and Miessner 2017a). One of the main concerns of the staff was that the bot should inspire trust and be transparent. This insight confirmed a research question that the team had had on how to make sure people trust the answers given by the machine (Figure 1).

The answer to this for Inland was to design a personality for the chatbot. This was another objective of the three days in Kuhmo, for which the team tested with the staff what kind of personality the bot should have. Here the team wanted to understand what personality traits the customer service expert used in their daily work. In October/November 2017, the team did further research on the personality of the bot through immersion testing with immigrant users via a survey done at the Helsinki Service Point to understand what kind of customer service servant they expect to find at Migri. The last step was done in February 2018 in which the team tested on users how informal or distant the chatbot should be. Following the decision regarding the chatbot's personality, the team asked the Migri employees to vote on a name. Only

Migri customer service chatbot personality

The design of the personality is based on 4 types of user involvement: (1) Workshop with Kuhmo customer service personal, (2) Survey in Helsinki Service point, (3) User testing of 3 chatbot personalities in Helsinki, (4) all Migri workers to vote on the name of the chatbot.

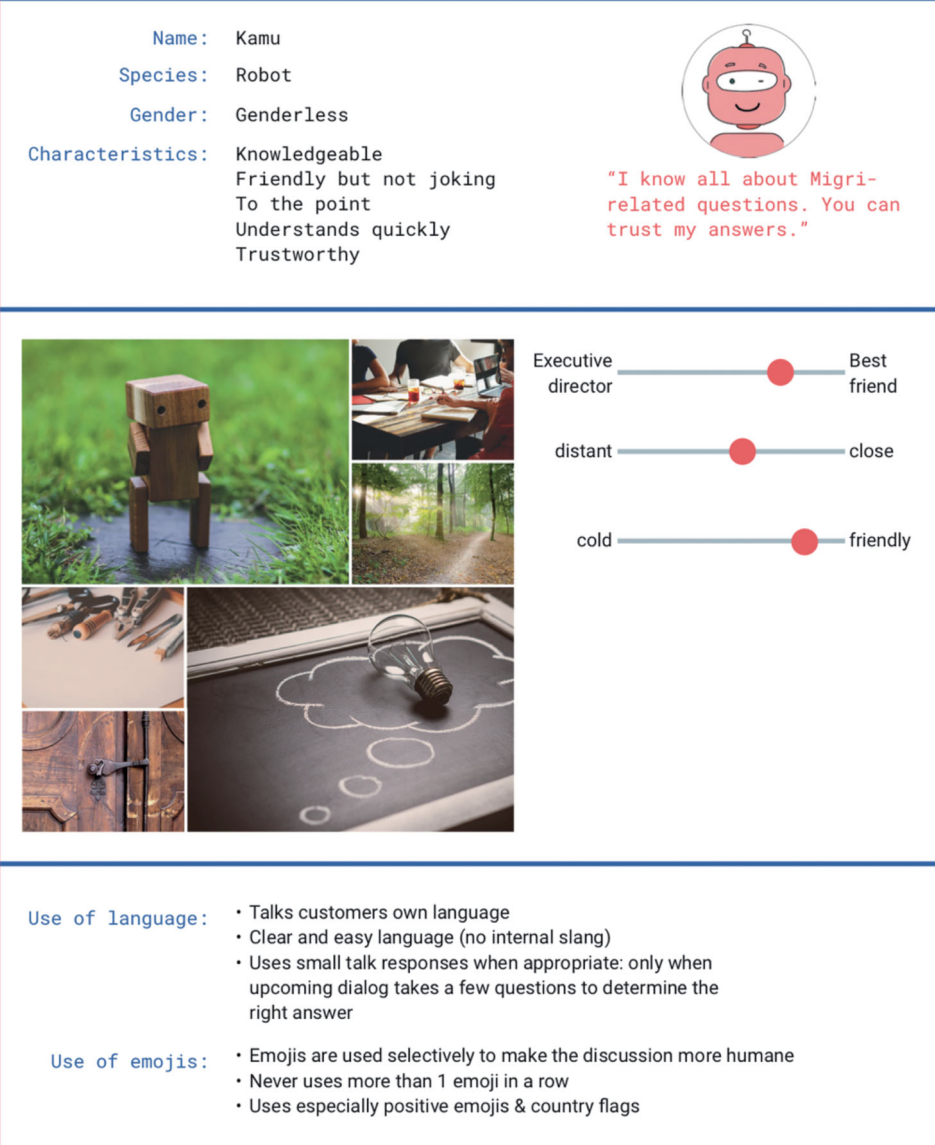


Figure 1. Kamu’s personality profile card (Inland Design 2019).

gender-neutral names were provided for the vote and Kamu was the name that was chosen.

In June 2018, the team ran a pilot of the services. Kamu had engaged in 45,000 conversations between May 2018 and January 2019, averaging 180 conversations a day.

Following the introduction of the chatbot, around 70% of calls were answered; however, this is also due to other improvements that were made in addition to the chatbot. In terms of organizational gains, the project has helped ingrain a user-centered mindset in the team, making user testing an integral part of their working practices (Inland Design 2019). While there was initial skepticism on the utility of Kamu, the chatbot has now become an integral part of the service offering and requests to add new content has now surpassed the team's capacity to produce. Lastly, while at the beginning the live chat was only open for two hours a day, it is now open from 9am to 4 pm just like the telephone services. The success of the project has also translated in Migri becoming a leader in chatbot development for public services and the team is often asked to share their experience and help other organizations replicate their experience (Figure 2).

3.3. Starting up smoothly: connecting organizational silos to better serve citizen needs

Kamu in fact inspired a joint project, "Starting up Smoothly", to form a network of chatbots between three public agencies: Migri, Vero (the Tax administration) and PRH (the Finnish Patent and Registration Office). The need to bridge organizational silos around life events was the key insight that drove the Starting up Smoothly project. The selection of the three organizations was made based on the specific project needs and according to what services would be most used by the users. In the case, one of the objectives was to improve services for investors coming to Finland, and the need was to register their companies, report their taxes, and get residence permits. In their concept, each organization remains the owner of their own chatbot and its content. The individual chatbots are then interconnected on an additional network layer to provide a more holistic service. The experiment started with two initial research questions, which were: (1) How can we serve customers through a common channel? (This question had the following sub-questions: Should the customer be aware of organizational silos? In other words, does it make sense for the customer to have one bot for three organizations? And if so, do they need to know that there are three organizations behind the single bot and which content comes from which?); and (2) How can we collaborate across organizational silos? How can we take another organization on board (Miessner 2018)? The answer to the first question was that the customer needed to be aware of the two different organizations and their respective areas of expertise should the user decide to go in person to ask for information or to call the phone services, etc. Thus, the decision was made for each organization to keep its own chatbot and to create a networked layer that refers users to the right chatbot.

The second question was reflected upon at the end of the process and led to some interesting reflections, mainly that technology comes after accounting for and understanding user needs and this includes those of system actors (e.g. front line staff, partner organizations, different public departments, etc.) and the organization itself. For this reason, Inland took an agile and collaborative approach to creating an integrated, networked service of organizational chatbots. In other words, rather than investing in large infrastructure and convincing organizations to get on board, Inland chose to connect separate prototypes designed to meet the individual organization's and its users'

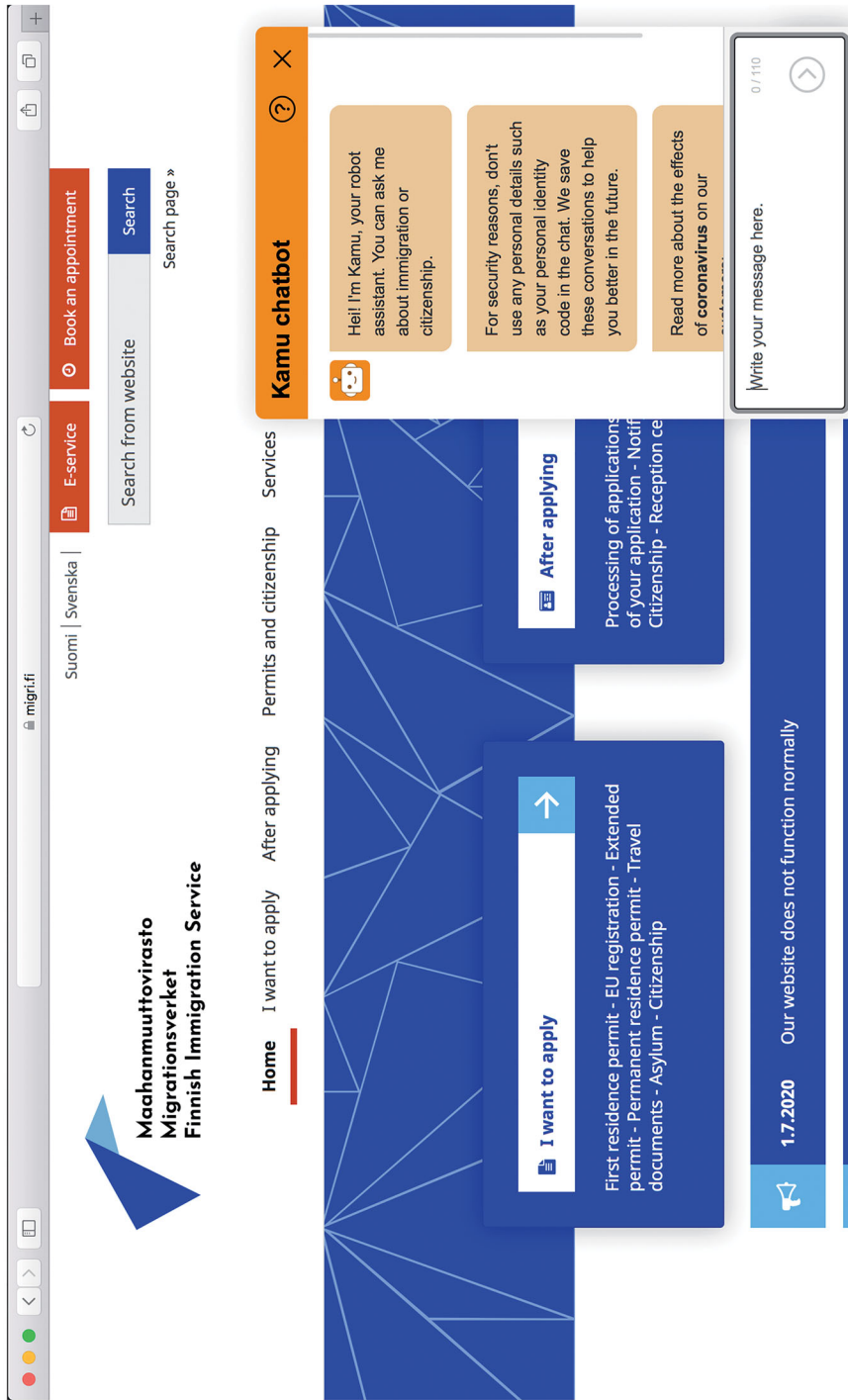


Figure 2. Kamu chatbot on the Migri.fi website (Maahanmuuttovirasto Migrationsverket 2020).

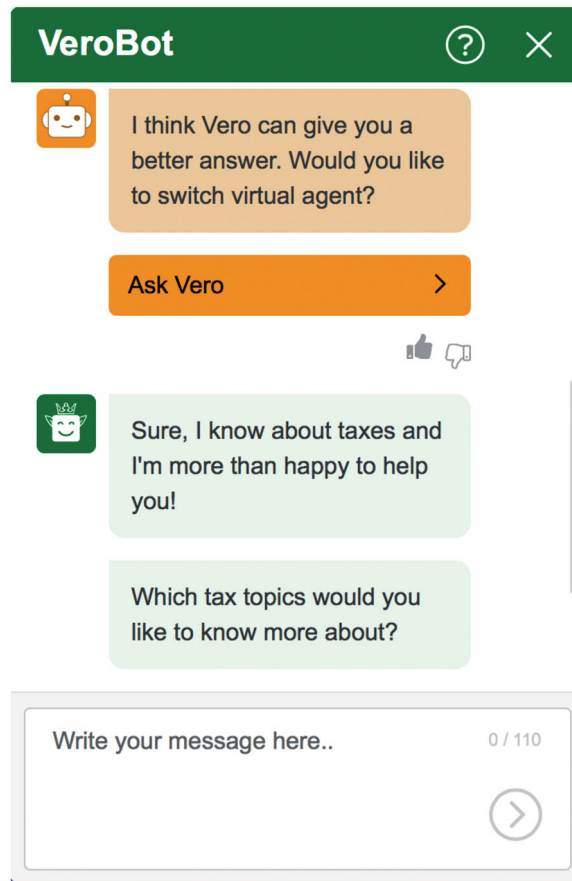


Figure 3. Kamu to VeroBot referral (Maahanmuuttovirasto Migrationsverket 2020).

needs (Miessner 2018). In January 2018, the Ministry of Finance expanded this concept to a larger scale, calling for a national network of chatbots under the project name “Aurora AI”, to which Kamu served as a best practice (Figure 3).

4. Findings

According to the data collected, the case demonstrates how Inland Design sought to generate organizational changes within a public sector agency through the introduction of a human-centered design approach to service delivery. The analysis produced four primary findings on how this was accomplished, at least during the time the lab existed within Migri. Follow-up studies would be interesting here to understand how much of the culture of design remained and how it was nourished following Inland’s move to the Ministry of the Interior.

Firstly, Inland focused on incremental steps to the integration of design tools and the development of culture. This was evident in the establishment of two different but supporting strategies: the softer, capacity-building and awareness activities, and the hands-on project work. The first allowed for rule-based and context-free learning environments necessary for novices to gain an initial understanding of design methods and

tools (Dreyfus and Dreyfus 1986). The latter, on the other hand, allowed participants to gain experiential knowledge and begin developing their own design practice via an authentic learning experience, allowing learning to emerge from the context of the problem and solution spaces. This was evident in the increasing recognition of useful script for the chatbot and continuing integration requests, signaling a re-framing of how the civil servants could work more effectively, for their users' and their own professional satisfaction. It was also evident in their work with the other public agencies in *Starting up Smoothly*, acting in the teams as knowledge holders, sharing a developed practice. This further supports the viewpoint of these labs as emerging knowledge actors in public service redesign (Williamson 2015, p. 252).

Secondly, the lab had to work hard to find organizational legitimacy. This was achieved both in time as the results of their work proved their value and in part thanks to specific initiatives that introduced the lab and its work to top management. This was clearly seen in their lunches with top management. This proved critical toward guaranteeing greater uptake of their work and for the value proposition to be fully implemented.

Third, the lab took account of existing design legacies and cultures rather than seeking to make revolutionary actions. This was evident in the iteration of the service chatbot and in the decision to create a networked chatbot system that allowed each organization to adapt and design their chatbots according to their own organizational needs. This approach to design in the public sector allowed the lab to account for both top-down needs as well as bottom-up needs, taking on a truly human-centered approach that goes beyond focusing on only the end user but all system actors (Bason 2013), employees included.

Lastly, the interview with the lab's director and coauthor, showed the limitations that arise when design is restricted to only implementation activities and not included in more strategy-level actions. The organizational level was thus found to mirror what has been found in literature (Buchanan, Junginger, and Terrey 2017; Howlett, Ramesh, and Perl 2009; Junginger, 2013; Mintrom and Thomas 2018) on the wider policy level. Thus, even on the organizational level, strategy and implementation need to be paired activities, highlighting the need for the integration of design as a core competence of the organization.

5. Discussion

The case provides interesting insights on the internal workings of an innovation lab operating inside a public sector organization and its impact on the larger organizational culture. In connection with the findings of Tönurist, Kattel, and Lember (2017) regarding internal PSI labs, Inland's main mission was to transform the organization through human-centered design. To this end, we can observe three ways in which Inland cultivated a 'new' culture of design within Migri as a way of enacting change in the organization (For a connection with existing literature, please see [Table 1](#) below.).

The first is through the creation of an authorizing environment (Moore 1995) for new practices to develop and the development of structures of participation. This can be seen in various elements. In terms of a tangible structure, the lab's space itself was

Table 1. Research Findings Connected with Existing Literature.

Inland findings	Connecting literature	References
Importance of creating a design space, or 'authorizing environment' for competence development and knowledge building/transfer	Moore's strategic triangle sheds light on how public value can be created, specifically the need to co-define public value and create authorizing environments for public value creation along with organizational capacity. Co-design is being employed as a way to 'call forth publics' for public value creation. The emergence of labs as knowledge actors in public re-design is also useful to understand the role of design in PSI. This is also connected with literature on the contested utility of labs as 'safe spaces' to create disruptive change.	(Lykketoft 2014; Moore 1995; Moore and Fung 2012; Sanders and Stappers 2008; Timeus and Gascó 2018; Tönurist, Kattel, and Lember 2017; Williamson 2015)
Building design capacity as a vehicle for transformation	(Co-)Design methods and tools are being used to build organizational capacity to innovate and change. Specifically, the engagement of participatory design methods and tools as a means to empower agency and democratize innovation seeks to create platforms for collaborative change and innovation. Design moreover has the potential of building organizational competence for knowledge transfer and empowering the policy capacity of public officials and organizations.	(Björgvinsson, Ehn, and Hillgren 2010; Brown and Duguid 2001; Deserti & Rizzo, 2014; Ehn 2008; Komatsu Cipriani, Forthcoming; Sørensen and Torfing 2015; Wu, Ramesh, and Howlett 2015)
Design empowering an enabling context for policy entrepreneurship	A design for services approach works to build enabling conditions for new interactions and relationships to develop (as observed in the case in both core activities and soft activities that helped break down knowledge asymmetries between the larger organization and the lab). This can potentially work to foster policy entrepreneurship, which is also in line with the infrastructures in the meta-design approach allowing future actors to take part in the design even in-use. Communities-of-practice are also developed around specific issues that connect public officials within the organization but also externally across silos (e.g. Starting Smoothly Project).	(Brown and Duguid 1991, 2001; Ehn 2008; Kimbell 2011; Kingdon 1984; Lave and Wenger 1991; Meroni and Sangiorgi 2011; Mintrom and Luetjens 2017; Mintrom & Norman, 2009; Star and Ruhleder 1996)
Design culture as a generative tool for organizational change	Design culture is a set of skills, competences and knowledge that allows organizations to mediate between the production and consumption of goods, services and knowledge. Through inside-out and outside-in linkages design culture can be an implicit driver of organizational change through the design process as existing cultures and ways of doing things evolve to better suit the innovation (moreover, involving system actors anticipates needs and increases the degrees of change from the outside-in), all of which catalyzes internal changes in operations to align with the needs of the innovation produced.	(Deserti & Rizzo, 2014; Julier 2008; Junginger 2008; Komatsu Cipriani, Forthcoming)

(continued)

Table 1. Continued.

Inland findings	Connecting literature	References
The location of design and impact	Design's relationship with organizational change has been connected to different levels of design maturity within the organization that determine its range of activities. More specifically, it has been seen as an implicit agent of change; change, in other words is an 'unexpected' result of the design process. In public sector innovation processes, design has entered in various ways: ad hoc projects, external design support and internal design support. Exploring how location influences the impact of design experiments in terms of organizational change is a useful pursuit in gaging the utility of design experiments in the public sector in terms of lasting impact.	(Buchanan 2008; Deserti & Rizzo, 2014; Junginger 2008; McGann, Blomkamp, and Lewis 2018; Schuurman and Tönurist 2017)
The value and nature of design knowledge	The experiential nature of design knowledge makes its transfer highly dependent on the development of practice. This endangers the outcomes of design as its uptake depends on all actors – particularly top management, policy makers, etc. – understanding and acknowledging different ways of knowing and accepting a diversified range of norms, values and sources of evidence.	(Bailey and Lloyd 2016; Head 2008; Komatsu Cipriani, Forthcoming; Rebolledo 2016; Tenbense 2006; Wagle 2000)

different from the rest of the organization in terms of its visual identity and brand and communication style. Being different granted actors a safe space to experiment and do things differently. Moreover, through features like the service library or initiatives like the Service Design Ambassador network, lunches with top management and service design workshops, the lab provided pathways for participation and interaction with the new working practices and principles. In short, what can be observed is the creation of an interaction environment through the production of tangible artifacts (e.g. the website, posters, design probes, templates, the chatbot, etc.) and intangible artifacts, seen in the experience of participation and collaboration through their different models (leading, taking part, consulting and opening new design spaces). These interactions characterize the experiential learning outcomes of the design process and support the experiential architecture of the organization's culture by giving form to how it is perceived, felt, understood and ultimately known.

This leads to the second contributing factor. Through project work and the initiatives, Inland focused on building design capacity in the organization through explicit activities like the Service Design Ambassador network, but also, and importantly, through the experiential learning process of its project work. As was seen in the development of Kamu and in the Starting up Smoothly process, civil servants were engaged in the design process from the problem framing to the implementation of the chatbot. Through the process, participants worked side-by-side with the designers and learned how to use the different design tools, contemporarily developing design practice. Valuing each actor's contribution to the process, particularly that of the final user, was an important outcome of the process, signaling a change in mindset: a recognition of

users as experts of their lived experience (Sanders and Stappers 2008). Moreover, Migri employees were able to see the benefits of digitization from a human perspective and the value of organizing services to fit their users' needs. This not only improved the impact and effectiveness of their services but also their experience of providing services. The co-design process emerged as a way for the actors to re-define their roles and empower agency in different forms, e.g. end users gained voice as did frontline staff. Through Inland's different working models, it was able to permeate the working ways of the organization, not only working in projects that they led and framed, but also merely contributing to projects that were led by others. What can be observed, in the culmination of these activities and processes, is the slow change in culture, from the outside-in and the inside-out (Junginger 2008; Deserti & Rizzo, 2014).

Moreover, as a secondary facet to the capacity building efforts of Inland, we can observe design empowering the context for policy entrepreneurship (Kingdon 1984; Mintrom and Luetjens 2017; Mintrom and Norman 2009). This was mostly evident in their effort to provide new competences in problem framing in the specific policy implementation context (albeit more limited to the double diamond approach rather than a co-evolutionary approach – as was also found in van der Bijl-Brouwer (2019) study on design in PSI cases that focused on capacity building). Through the use of human-centered design tools, approaches and methods, and co-design, the lab created communities of practice (Brown and Duguid 1991; Lave and Wenger 1991) around specific issues, forming alternatives to given problems (emerging from the context or in response to extant policies) through service design. These solutions could in the future be scaled up (e.g. by joining up with larger political programs (in the case, Finland's Aurora AI)). More work however must be done to connect policymaking with policy implementation as discussed in literature; otherwise the fruits of these efforts will go in vain. Through labs, design has the potential of creating the context for a larger population of 'silent' policy entrepreneurs to arise with new tools for re-framing problems and building momentum. This, however, requires further and more systematic studies than a single case study can provide. It, nonetheless, provides an interesting starting point for further reflection.

Lastly, we can observe the development of design culture as a generative tool for organizational change. While it is too early in the process to measure concrete change, what can be observed is an increasing appreciation and trust in the co-design approach and user-centricity that Inland promoted. This is evidenced in the increasing number of new projects that were brought to them and the new groups asking to do user testing, some of whom had not had any involvement in Inland. This demonstrates the value that their work acquired by Migri employees. Moreover, by engaging civil servants in the design process, participants are equipped with the experiential knowledge needed to receive the innovation. Instead of being an innovative product that the staff had to adopt, Migri employees came to understand and value the chatbot's function in the organization through the development process. We can therefore see how co-design not only cultivates a culture that produces innovation but also prepares organizational members to receive innovation through the process.

The case also demonstrated constraints to design work in the public sector. While being housed in Migri as internal design experts had its positive features (e.g. increased

organizational knowledge, trust and resources), it also came with challenges. For example, the nature of the work that Inland was invited to do was mostly service-oriented, and rarely touched upon strategy, where co-creation processes could be quite impactful. This ties into the discussion regarding the location of design competences within the organization (Junginger 2009) and its permanence. In the case of Inland, the designers had a temporary contract. The lack of organizational permanence and the separation of its activities from strategy negatively impacted its role. In order for designers to be able to propose radical solutions and truly impact the organization, design needs to be a permanent resource in public organizations, rather than a pop-up endeavor or an experiment. Moreover, the transversal quality of the lab's action led to many "supervisors" that, paired with the lack of strategic involvement, worked to dissipate the impact of the outcomes of the design process. In other words, without being included in the strategic efforts of the organization, the impact of design can be lost in diverging efforts spent in singular episodes of service innovation, rather than converging on a strategic, organizational change plan or innovation strategy.

Recently, Inland Design has found a new home in the Ministry of the Interior, and, thanks to reflections such as these, is now in the strategy and development department. This move owes much to their track record in digitizing public services, which acted as a sort of 'trojan horse', allowing them in time to reach more strategic roles. This progression speaks not only to the enactment processes (Weick 1993) that are active in the development of new cultures and the dialectical inquiry (Buchanan, 2015) that characterizes the process, but also to the tacit dimension of design knowledge that is gained with practice (Komatsu Cipriani, Forthcoming). In other words, the value of design is understood through experience. Despite this progression, the lab has yet to gain a permanent status and is once again on a two-year contract. This serves to further emphasize the need to design ways for the practices to last beyond the presence of the lab, encoding the learning into the organization's knowledge base.

6. Conclusions

We acknowledge the need for public sector organizations to open up their boundaries to different forms of support and knowledge (Brodtrick 1998) and have seen the potential use of design to help these organizations develop interactive learning partnerships with other actors in the system to achieve results that are valued by citizens, building their capacity to continuously change (Nadler, Shaw, and Walton 1995; Pasmore et al. 2019). We have seen design help to build this capacity through two measures: (1) setting the context for a new organizational culture to develop; and (2) developing its 'usability' through capacity building. In this way, design has the potential of transforming public sector organizations – albeit implicitly – through practice and the creation of environments and contexts that allow for situated design cultures to develop.

Through the case, we have, however, observed some challenges that are limiting this potential, mostly in the disconnect between the expectations of creating organizational change and the enabling conditions of the design action. Regarding the latter, the case exemplified several issues that also emerged in literature, namely: the position of the lab relative to the organization; the distancing of design activity from more strategic

positions; and its relative impermanence as an organizational asset, owing to the struggle to gain organizational legitimacy. Despite these issues, the case also demonstrated some enabling factors related to its position as an internal lab. Firstly, being seen as colleagues helped facilitate organizational legitimacy and trust. Second, as employees, the designers were able to acquire organizational knowledge useful toward creating design principles that build off of existing design legacies (Junginger 2014).

The discussion leads to some interesting implications for policymakers and public managers seeking to promote change through innovation. Throughout the paper and the discussion of the case study on Inland Design, we have argued for the potential of design culture to act as a generative tool for organizational change through its capacity to mediate between the production and consumption of products/services. We have also stressed the importance of introducing a human rather than user-centered design approach toward problem-solving and its potential, transformational impact on the organization. The paper has both demonstrated the factors that facilitate introducing and embedding a human-centered design approach into a public sector organization, as well as highlighting the ongoing need to create an environment for design culture to develop and the capacities with which to interact and act within it. Creating an environment, however, does not necessarily mean that it must be distinct from the organization. Instead, design should permeate throughout the organization allowing for top-down and bottom-up processes to converge. In this effort, public managers and policymakers should nurture situated design cultures (See (Body 2008) for a practical example.) in the different levels of the public service and manage the linkages between them. Moreover, if design wishes to consolidate its role in transforming the public sector and innovating its service offer, designers must be aware of their role in the process and take responsibility for it. This means recognizing their power to decide who is included in the process (especially relevant for the public sector), managing the trust that is bestowed upon them and acknowledging their agency in (co-)leading the process of how public value is defined.

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