

Jun 23rd, 9:00 AM - Jun 28th, 5:00 PM

## Critical service design for government innovation

Lara Salinas  
*University of the Arts London*

Laura Yarrow  
*Government Digital Service*

Marion Lagedamont  
*University of the Arts London*

Follow this and additional works at: <https://dl.designresearchsociety.org/drs-conference-papers>



Part of the [Art and Design Commons](#)

---

### Citation

Salinas, L., Yarrow, L., and Lagedamont, M. (2024) Critical service design for government innovation, in Gray, C., Ciliotta Chehade, E., Hekkert, P., Forlano, L., Ciuccarelli, P., Lloyd, P. (eds.), *DRS2024: Boston*, 23–28 June, Boston, USA. <https://doi.org/10.21606/drs.2024.532>

This Research Paper is brought to you for free and open access by the DRS Conference Proceedings at DRS Digital Library. It has been accepted for inclusion in DRS Biennial Conference Series by an authorized administrator of DRS Digital Library. For more information, please contact [dl@designresearchsociety.org](mailto:dl@designresearchsociety.org).

## Critical service design for government innovation

Lara Salinas<sup>a</sup>, Laura Yarrow<sup>b</sup>, Marion Lagedamont<sup>a</sup>

<sup>a</sup>Service Futures Lab, London College of Communication, University of the Arts London

<sup>b</sup>GOV.UK, Government Digital Service, UK Cabinet Office

\*Corresponding e-mail: l.salinas@lcc.arts.ac.uk

[doi.org/10.21606/drs.2024.532](https://doi.org/10.21606/drs.2024.532)

**Abstract:** This paper contributes to the discussion on the roles and pedagogy of design, based on a case study of collaboration between government and academia. The authors are design practice researchers and civil servants and present a collaborative case study from Spring 2023 that aimed at developing anticipatory innovation capability in the UK's Government Digital Service, involving postgraduate service design students and exploring critical service design (Salinas, 2022, 2023) for its potential to contribute to the formulation of public policies and services. The collaboration led to new competencies in public design for those involved and catalyzed the thinking of a new in-house anticipatory innovation unit in government. The authors draw on the student proposal 'Ministry of Biodiversity' as an exemplar to contextualize and illustrate their collaborative practice. The paper concludes with a discussion of the insights gained from this collaboration regarding the roles and pedagogy of design in government.

**Keywords:** public design; design futures; pedagogy; anticipatory innovation;

### 1. Context

We are design practice researchers and educators at the Service Futures Lab, London College of Communication, University of the Arts London (hereafter the Lab), and civil servants at the UK Cabinet Office's Government Digital Service. In this paper, we present a case study of government-academia collaboration to contribute to the discussion on the role and possibilities of (service) design in public administrations and of its pedagogy.

The case study features a collaboration that involved three parties: 1) The UK Cabinet Office's Government Digital Service, 2) postgraduate service design students from MA Service Design at London College of Communication and 3) design practice researchers and educators from the Lab. The Lab's role is to provide the infrastructure required to articulate complex multi-stakeholder collaborations involving cohorts of students. When the Lab facilitates the involvement of design students in a collaboration, our dual role as design practice researchers *and* educators demands that we bridge the requirements from our collaborators



This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International Licence.

(Government Digital Service), with the requirements of the student curriculum (MA Service Design) and our own (the authors) (Salinas *et al.*, 2023). One of the mechanisms that enables these collaborations are projects embedded in the curriculum, whereby a full cohort of students responds to a challenge set up with an external organization. In the case study presented in this paper, the collaboration involved students from MA Service Design 2022/23 in the context of the unit Design Futures led by the authors. In essence, Design Futures is an 8-week long module focused on a particular approach to anticipatory innovation through service design (Malpass and Salinas, 2020): critical service design (Salinas, 2023; 2022). Since 2016, the course has explored anticipatory innovation through service design with many organizations, such as the European Commission, (Salinas, 2018; Kimbell and Vesnić-Alujević, 2020), national charities (Lagedamont and Salinas, 2020) or local government (University of the Arts London, 2022; 2021; Salinas, Lang and Swift, 2022), exploring how future-focused disciplines, methodologies and methods may contribute to expand the practice of service design in the context of public administrations.

In the paper, we present a case study based on one of the concepts proposed by one group of students of the Design Futures module called the Ministry of Biodiversity. The design proposal of this fictional ministry serves as an exemplar to explore and discuss critical service design's contribution to public administrations, and its pedagogy. Our thinking is informed by our collaborative practice with students and civil servants at Government Digital Service; supported by bi-weekly reflexive conversation between the authors and members of their teams involved in the delivery of the project for approximately 6-months.

The paper is structured as follows. The next section provides an overview of design in government, focusing on the use of anticipatory design-led approaches and on critical service design. Then, the paper presents the UK's Government Digital Service. Next, we present the case study. Finally, the paper concludes with a reflexion on how the collaboration has led to an evolved understanding of the relation between design and policy-making at the GDS and a suggestions for a future research agenda focused on the pedagogy of design in / for government.

## 2. Design in the UK government

Design in government in the UK has a growing and mature community of practice. Over the past decade, design in public sector has evolved from designing for public services to also designing for public policies, and to an increase in embedded designers and internal design units at local and national level public sector organizations. Policy labs are government units that play a key role in applying interdisciplinary approaches to policymaking, including design methods. The UK Policy Lab, established in 2014 by the UK Cabinet Office, has been instrumental in developing and promoting innovative methodological approaches in government, including design. They hired their first policy designer in 2017 and later added a speculative critical designer to the team.

In the past decade, there has been a significant increase in the number of policy labs at national, regional, and local levels in the UK. In 2022, the UK Government sponsored a Policy Design Community to support policy makers across various public sector organizations. This community aims to promote the adoption of multidisciplinary approaches to policy making and delivery throughout the government. One of the approaches that has grown in this last decade is anticipatory-led innovation through service design (Malpass and Salinas, 2020). As noted by the authors in their national review of the contribution of design to public sector innovation, design-led anticipatory innovation was an emergent approach in design for policy, which has become popularized in recent years. An early example of speculative and critical design (Dunne and Raby, 2013) in government is a commission by the UK Government Foresight to the design agency Strange Telemetry, who back in 2015 employed speculative visioning methods to propose and reflect on futures with a timeline working towards 2040 (Strange Telemetry, no date). Another example is Proto-Policy (2015), which explored how design fictions (Bleecker, 2009; Coulton et al., 2017) could help policy makers engage with citizens (Darby et al., 2015). A more recent example of anticipatory innovation in government is brought up by Superflux Studio with UK Policy Lab and DEFRA Futures, to explore “How can we transform what the freshwater system looks like, 20 years from now and beyond?” (Superflux, 2023).

Design-led anticipatory innovation offers playful alternatives to business as usual, where design stimulates imagination and explores people’s role in shaping alternative futures (Hilgren & Light, 2020). This can complement traditional policy formulation, or propose a reversal of traditional processes, suggesting a reorientation of the policy hierarchy that “privileges the knowledge and experience gained at the interface of service and citizen, and posits this as a primary driver of policy” (Design Commission, 2013, p.6). That is the proposal of critical service design (Salinas, 2023; 2023), which focuses on the design of fictional services that, when experienced, communicate the socio-material configuration of a complex fictional world (Figure 1). In this way, critical service design deploys novel public policies and services in a parallel future framework, creating opportunities for collaborative innovation, experimentation and learning in a de-risked space: alternative, possible, maybe preferable futures.

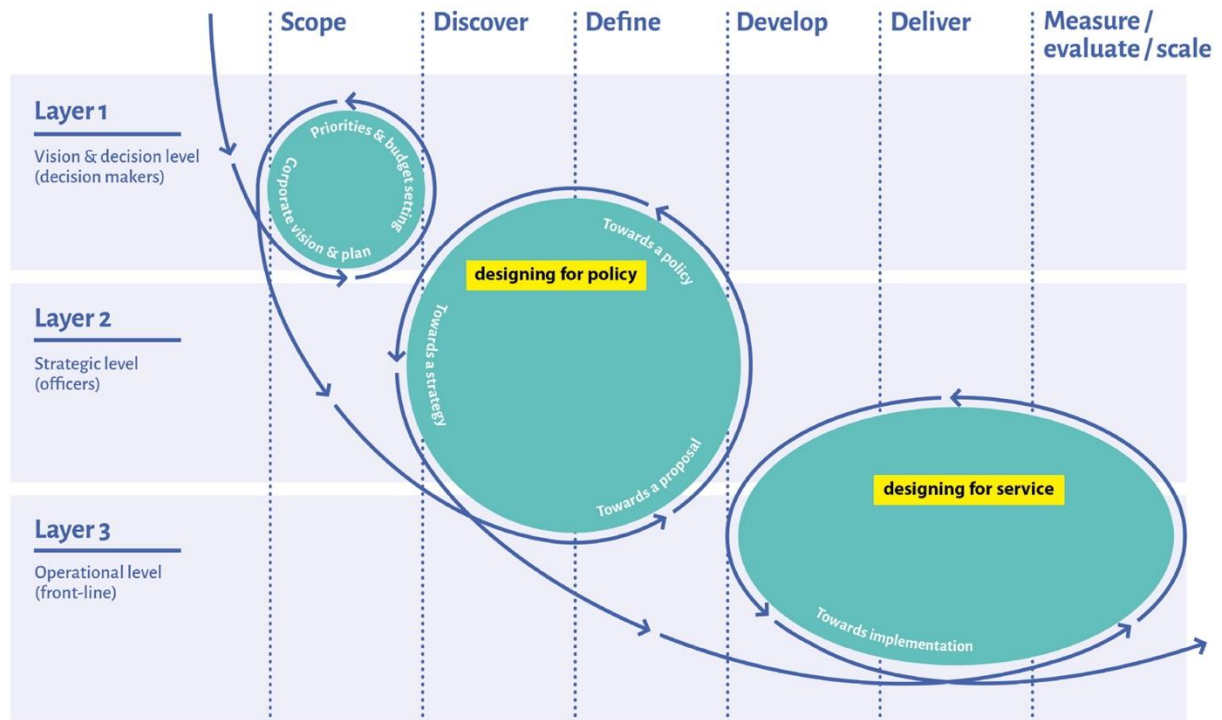


Figure 1 Policy making cycle, in Salinas (2022) based on Thorpe et al. (2017).

Recent research exploring current debates and future directions of research on design in public administrations in the UK (Kimbell et al., 2023). The authors identify three relationships between design and policy-making with co-exist in public administration, with different implications, types of knowledge, and roles. These relationships frame design as a tool for policy-making, as a practice of improvising withing policy-making, and as regenerating policy-making. In the first relationship, design as a tool for policy-making, design generates solutions to agreed policy problems. In the second, design as a practice of improvising withing policy-making, design enables policy-making to engage with lived experience therefore closing the gap between policy and delivery. In the latter and most nascent relationship, design regenerating policy making, design has a “critically disruptive or generative purpose [...] through the use of creative practices for transformational purposes”. It “challenges the ways we currently think about a policy issue and the delivery of a policy” (Kimbell et al. 2023, pp. 37, 39). Understanding these well differentiated relationships between design and policy contributes to situate the role of critical service design to policy-making. Moreover, this case study on critical service design contributes to illustrate what “design regenerating policy making” may look like in practice as well as in design pedagogy.

## 2. UK’s Government Digital Service

In this paper we focus on design for public policy at government department that is traditionally concerned with the delivery of digital services. The UK’s Government Digital Service (hereafter GDS) is not a policy lab. It was established in 2011 in the Cabinet Office of the UK

with the primary objective of revolutionizing the delivery of digital public services and information. Its inception was rooted in a visionary goal - to consolidate thousands of independent public sector websites into one cohesive entity, a mission articulated in Martha Lane Fox's "Revolution not evolution" letter.

The GDS's core strategy involves developing shared platforms that empower various government departments to enhance their digital services, fostering collaboration and cohesion. The GDS's operates at the heart of a vast network encompassing over 1,900 government departments, bodies, NHS entities, agencies, and more. This extensive reach underscores its pivotal role in orchestrating the digital transformation across the government landscape. They maintain several cross-government platforms and tools that constitute an interface between people and government, such as GOV.UK. The GOV.UK website is an expansive repository, often referred to as the "front door to government," housing more than 7,675 services and over 600,000 pages. It garners an impressive average of three million daily visits and has accrued over 33 billion page views since its launch in 2012, making it a pivotal resource in the landscape of digital services and information.

The award-winning specialist team of the GDS's are recognized world leaders in public sector digital innovation who radically changed government service delivery, demonstrating the role of design as a tool for efficient delivery. As a digital service delivery unit, the GDS's is informed by policy and to date it has worked to meet policies by implementing what the team interprets those policy intents to be. Accruing a decade of experience in digital public service delivery, the GDS team is seeking to continue improving public service delivery, adopt more responsive processes to better incorporate the knowledges and perspectives gained from the delivery of services into policy-making processes.

Using the three relationships of design and policy proposed by Kimbell et al. (2023), the GDS is an exemplar of design as a tool for policy-making, seeking to expand and adopt other relationships between design and policy-making, and of course between designers and policy-makers.

The following section outlines the collaboration between the GDS's and students from MA Service Design, facilitated by the Lab, and exploring what critical service design might look like at the GDS, and how it might support new relationships between design and policy-making at the GDS.

### **3. What if there was a Ministry of Biodiversity?**

A cohort of 41 international students of diverse design and non-design backgrounds formed the MA Service Design cohort of 2022/23. The Design Futures modules is delivered through project-based learning, a student-centered approach to learning and teaching in which students learn through hands-on experiences and real-world challenges, as a combination of lectures, guest lectures and talks, design practice research, design critiques, and tutorials. The cohort formed 8 working groups and were briefed to design a fictional future service that would be delivered by a future alternative version of the GDS team. The GDS team

members were active participants throughout the collaboration, giving enlightening guest lectures about design in government and hosting regular design crits at their offices, where the extended the GDS team would join. With support from the authors and colleagues, each group proposed one fictional service (a total of eight), tackling a wide range of relevant and pressing socio-political, ecological, and economical issues. For instance, while one project explored the introduction of a waste cap, challenging our relationship to consumption and waste production; another imposed daily limits on digital device usage to highlight often overlooked digital carbon footprints. Other group reimaged parental support structures to balance demographic challenges; while another extended mental health outreach into our daily routines, transforming local businesses into first-line support hubs for community members. Others also investigated the tradeoff behind personal data and preventative healthcare, and the radical reframing of social capital through valuing community involvement over economic metrics.

In order to better illustrate the process, the paper focuses on the work delivered by one student group composed by Ada Maymó Costa, Peizhen Li, Sebastian Wang, Radha Joglekar and Yitong Jing, who proposed an alternative future in which a (fictional) a Ministry of Biodiversity is tasked with guaranteeing the survival and well-being of natural ecosystems, and which (fictional) policies and services are delivered by the GDS. We approach critical service design as a framework informed by reflexive collaborative research practice. We outline the process in four stages namely “reframing”, “horizon scanning”, “materializing alternatives” and “show and tell”, which are a slight variation from the process presented in Salinas (2022).

### 3.1. Reframing

The aim of this first stage is to challenge assumptions about design as a discipline and futures, informed by design (speculative critical design and social design) and future studies. For design graduates, trained to quickly design things that efficiently solve present day problems, thinking of pluriversal futures (Escobar, 2018) is often challenging. As an introduction to design futures, in the classroom graduates are asked to draw their vision of the future in a piece of paper. These first futures are often projections of the present, dominated by technology (techno-utopianism or techno-dystopian visions), largely influenced by science fiction across film and literature. Futures that we take for granted if only through their sheer persistence in the collective imaginary. Futures that are contaminating the present (Tonkinwise 2019). Next, we consider which of the proposed futures are preferable, and how are we equipped to make a difference and bring them about. That leads us to establish a first criteria for the futures we design: futures that we desire, futures that are sustainable and that are not centered on the development of technological innovation. As Salinas (2022) puts is:

“This critical position places an emphasis on *preferable* futures, defined by that which enables the conditions of ecological sustainability (Fry, 2009), human-centred as opposed to technotopian futures (Gidley, 2017) and desired-based as opposed to the conventional problem-based approaches that dominate design (Leitão, 2020, 2022)”

As a first step to identify and break free from dominant narratives of the future, and start considering that other futures are possible, and other ways of designing are possible and needed, too, we ask students to think about one thing (product or service) that we can design that will bring about a desirable future.

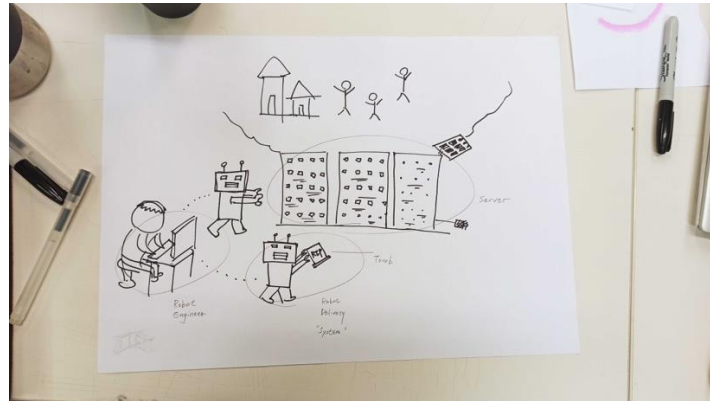


Figure 2 A drawing of a futures with humanoid robots.

Then, we introduce Critical Design (Auger, 2013; Dunne and Raby, 2013; Malpass, 2016, 2017; Pollastri, 2017) as umbrella term for practices that use design as a vehicle to reflect on futures as personal and lived experience, to better understand the present and what possible futures might be desirable, materializing possibilities, learning to critically consider the implications of designing.

### 3.2. Horizon scanning

The aim of the second stage is to understand pasts, presents and futures. Drawing on future studies methods, we embark on a horizon scanning to build an Evidence Safari (UK Policy Lab, 2016): a visual database of relevant data evidence, which is compiled as a collection of visual cards that contain nuggets of evidence. We seek to identify signals of change but also to find inspiration times and geographies, collecting an ensemble of various type of evidence comprised of signals and trends, identified, and collected anywhere from news outlets, scientific studies, services, and policies to everyday life practices. The activity provides with a rich foundational knowledge and inspiration towards a more layered world-building.

As evidence was been gathered, students noted “What if Questions” to support divergent thinking, reframing problems and explore hard-to-imagine possibilities (Dorst, 2011). It is at this stage that students start expressing their desires and exploring what futures might be preferable according to their own worldviews (Inayatullah, 2013).

Our student team explored the causes of loss of biodiversity (United Nations, 2021), was inspired the images of nature thriving and animals taking over cities during the pandemic lockdown (The Guardian, 2020); ‘No Mow May’ movement (Shersby, 2023), and puzzled by the limited actions taken by governments that struggle to balance economy and planetary interests, and proposed the following provocation:

“What if governments were proactive towards biodiversity conservation? This question challenges the current human-centric approach of the UK government and calls for new strategies that consider the well-being of non-human species and natural ecosystems to mitigate biodiversity loss. The rationale behind this question is the consideration of humans as part of a whole natural ecosystem, where the thriving of non-human species is essential for the thriving of humans.”

### 3.3. Materializing alternatives

The aim of this third stage is to materialize and critically discuss alternatives. Students engage in rapid and iterative prototyping of fictional services, whereby making is a form of knowing and creative enquiry (Koskinen et al., 2013). Diegetic prototypes (Kirby, 2010) are objects (touchpoints) from alternative, fictional, worlds that act as “entry points” into these worlds. Making these fictional artifacts is an act of world-building (Coulton et al., 2017) that communicate possibilities and futures, informed by secondary research and proposing an alternative framing of present day problems.

The (fictional) Ministry of Biodiversity is established to guarantee the survival and well-being of natural ecosystems, and an exemplar demonstration of government priorities. Through extensive prototyping the team deployed government pushed policies to stop the decreasing biodiversity.

The (fictional) Ministry introduced three key policies:

- A **Nature Recovery Season**, which is a campaign to support nature to thrive and which implies banning human access during prolonged periods.
- A **Biodiversity Conservation Certificate**, which is a training on biodiversity preservation that (very much in the fashion of a covid pass) is required to gain access to certain spaces.
- A **Bill of Multispecies Rights**, which grants legal rights to non-humans and allows the Attorney General’s Office to legally prosecute those harming biodiversity, especially big corporations with higher impacts.

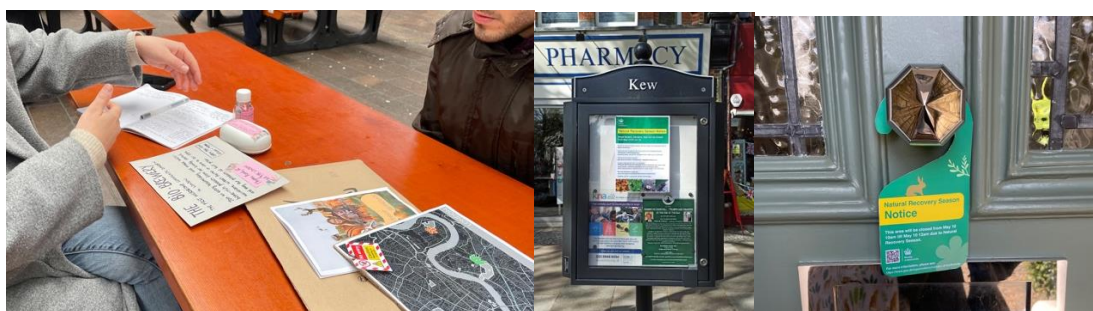


Figure 3 Deploying future service touchpoints as part of the design process, to understand the services in context and gauge residents’ response to future services.

**Ministry of Biodiversity**

**Nature Recovery Season**

**The Kew Royal Botanic Gardens will be closed from May 10 until July 10.**

During the Nature Recovery Season, the Kew Gardens will take forward work to improve biodiversity.

**Reintroduction of lost species in England and introduction of declining species:**

- European Beaver
- Clavaria zollingeri
- Sphagnum Moss
- 50+ Other Species

**Control of non-native species:**

- Grey Squirrel
- Harlequin ladybirds
- Rhododendron
- 14 Other Species

**Adaptive Management Plan for Woodland:**  
We have partnered with the Mountain Woodland Project to ameliorate soil, collect seeds, monitor growth, undertake experimental work, aid regeneration, and carry out native tree planting and removal of dense or large areas of non-native trees.

**Together, we can restore this rich and vibrant place.**

For more information, please see: <https://www.gov.uk/organisations/ministry-of-biodiversity>

**1 Kew Gardens**  
The Royal Botanic Gardens, Kew is home to the world's largest collection of living plants, set in a historic landscape with over 60 listed buildings - including the famous Victorian Palm House and the other glasshouses. Explore plants from desert, ocean and mountain regions, historic and exotic, and great places to eat, or set in a World Heritage Site.

**2 The National Archives**  
Open to all, The National Archives is a place to explore 1,000 years of history - from Shakespeare to all the way from Queen Elizabeth. The museum building, set within beautiful grounds and lawns, offers visitors a diverse programme of events, exhibitions, family activities, research to suit all, and behind-the-scenes tours. It will be a free and inclusive, free admission, open Tuesday - Saturday.

**Nature Recovery Season Notice**  
Kew Royal Botanic Gardens, Kew will be closed from May 10 to July 10.

Figure 4 Planned closure of Kew Gardens as part of the Nature Recovery Season plan.

The (fictional) Ministry of Biodiversity changes the fabric of urban environments, no longer human-centric, cities now have protected areas not accessible to humans, emphasising an improved, respectful, and mutually beneficial, coexistence with nature. It challenges accepted ideas of human precedence over other natural and animal species and demonstrates how a the paradigmatic shift of embracing more-than-human systems might play out for government.

### 3.4. Show & Tell

The aim of this stage is to enable conversations between designers and policy-makers about how the materialization of alternative futures can inform present day decision-making (Robinson, 1990).

The collaboration concluded with a Show & Tell (Service Futures Lab, 2023) event held at GDS offices, in central London. All eight future concepts designed by the students were showcased and stories of alternative futures and the creative process exploring were told to the GDS team, including executive management.



Figure 5: Planned closure of Kew Gardens as part of the Nature Recovery Season plan.

Although it is early for a full evaluation of the collaboration, there is a salient indicator that points towards the interest of new relationships between design and policy in GDS the creation of a new in-house unit called Greenhouse (Service Futures Lab, 2023). The Greenhouse team will catalyze the learnings from our collaboration and embed design-led anticipatory innovation in the GDS as part of their business-as-usual, which offers a clear indication of the perceived potential of design, and critical service design, to improve quality of public services and influence policy formulation. This suggests that the collaboration has expanded the GDS' understanding of role of design in government, and increased their confidence on the key role that design can play in reorganizing policy formulation and digital service delivery.

The postgraduate service design students involved have also expanded their understanding of design in government. As an indicator, right after the collaboration two of the five students involved in the Ministry of Biodiversity have begun their careers as designers in public administration in the UK. For the design educators involved, the collaboration is an opportunity to increase the permeability between design research, design in government and design education.

#### 4. A greenhouse for government innovation

The paper has presented a collaborative case study between the UK's Government Digital Service and students from MA Service Design, facilitated by Service Futures Lab, at London College of Communication, University of the Arts London. The case study has provided an illustration how critical service design (Salinas 2023; 2022) operates as a form of design-led anticipatory innovation through service design (Malpass & Salinas, 2020), and how it creates the opportunity for (service) designers to contribute to policy formulation through the articulation of fictional services and alternative futures. The case study is exemplary of how designers can establish generative and agonistic spaces that challenge the ways in which the formulation of policy and services is commonly understood.

Design academia is training the next generation of designers, many of which are filling the increasing demand of design in public sector organizations. We identify the need for further research to advance the field of public design through a curriculum that is informed by interdisciplinary practice and research.

**Acknowledgements:** We would like to express our sincere gratitude to our colleagues Digby Usher, Marina Filiba and Kate Ivey-Williams; to the MA Service Design cohort of 2022/23 and to Ada Maymó Costa, Peizhen Li, Sebastian Wang, Radha Joglekar and Yitong Jing for their key role in delivering the collaboration that has served as a case study. We would also like to thank the reviewers for their valuable comments and suggestions that have helped improve the clarity and quality of this manuscript.

## 5. References

- Auger, J. (2013) 'Speculative design: crafting the speculation', *Digital Creativity*, 24(1), pp. 11–35. Available at: <https://doi.org/10.1080/14626268.2013.767276>.
- Bleecker, J. (2009) *Design Fiction: A Short Essay on Design, Science, Fact and Fiction*. Near Future Laboratory.
- Cairney, P. (2016) 'The politics of evidence-based policymaking', *The Guardian*, 10 March. Available at: <https://www.theguardian.com/science/political-science/2016/mar/10/the-politics-of-evidence-based-policymaking> (Accessed: 31 October 2023).
- Coulton, P., J. Lindley, M. Sturdee, and M. Stead. 2017. "Design Fiction as World Building." In *Proceedings of Research Through Design Conference 2017*. Edinburgh.
- Dorst, K. (2011) 'The core of "design thinking" and its application', *Design Studies*, 32(6), pp. 521–532. Available at: <https://doi.org/10.1016/j.destud.2011.07.006>.
- Dunne, A. and Raby, F. (2013) *Speculative everything: design, fiction, and social dreaming*. Cambridge, Massachusetts ; London: The MIT Press.
- Escobar, A. (2018) *Design for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Durham, NC: Duke University Press
- Fry, T. (2009) *Design futuring: sustainability, ethics, and new practice*. English ed. Oxford ; New York: Berg.
- Gidley, J.M. (2017) *The Future: A Very Short Introduction*. Oxford, New York: Oxford University Press (Very Short Introductions).
- Inayatullah, S. (2013) 'Futures Studies: Theories and Methods', in *There's a Future: Visions for a Better World*. BBVA, p. 30.
- Kimbell, L. and Vesnić-Alujević, L. (2020) 'After the toolkit: anticipatory logics and the future of government', *Policy Design and Practice*, 3(2), pp. 95–108. Available at: <https://doi.org/10.1080/25741292.2020.1763545>.
- Kimbell, L. et al. (2023) *Design and Policy: Current Debates and Future Directions for Research in the UK: Report of the AHRC Design|Policy Research Network*. London: University of the Arts London.
- Kirby, D. (2010) 'The Future is Now: Diegetic Prototypes and the Role of Popular Films in Generating Real-world Technological Development', *Social Studies of Science*, 40(1), pp. 41–70. Available at: <https://doi.org/10.1177/0306312709338325>.
- Koskinen, I. et al. (2013) 'Design Research Through Practice: From the Lab, Field, and Showroom', *Morgan Kaufmann*, 56(3), pp. 262–263. Available at: <https://doi.org/10.1109/TPC.2013.2274109>.
- Leitão, R.M. (2020) 'Pluriversal design and desire-based design: desire as the impulse for human flourishing', in *Pivot 2020: Designing a World of Many Centers*. Design Research Society. Available at: <https://doi.org/10.21606/pluriversal.2020.011>.
- Leitão, R.M. (2022) 'From Needs to Desire: Pluriversal Design as a Desire-Based Design', *Design and Culture*, pp. 1–22. Available at: <https://doi.org/10.1080/17547075.2022.2103949>.
- London College of Communication (2020) *MA Service Design | Supermarket2030*. [video] Available at: <https://www.youtube.com/watch?v=Tiff-sra8eA> (Accessed: 17 February 2021).

- Malpass, M. (2016) 'Critical Design Practice: Theoretical Perspectives and Methods of Engagement', *The Design Journal*, 19(3), pp. 473–489. Available at: <https://doi.org/10.1080/14606925.2016.1161943>.
- Malpass, M. (2017) *Critical Design in Context*. London: Bloomsbury. Available at: <https://www.bloomsbury.com/uk/critical-design-in-context-9781472575180/> (Accessed: 30 January 2020).
- Malpass, M. and Salinas, L. (2020) *AHRC Design Fellows Challenges of the Future: Public services*. Available at: <https://ualresearchonline.arts.ac.uk/id/eprint/15838/7/Malpass-Salinas-2020-AHRC-Public-Services.pdf>.
- Pollastri, S. (2017) *Visual conversations on urban futures. Understanding participatory processes and artefacts*. PhD thesis, Lancaster University.
- Robinson, J.B. (1990) 'Futures under glass: A recipe for people who hate to predict', *Futures*, 22(8), pp. 820–842. Available at: [https://doi.org/10.1016/0016-3287\(90\)90018-D](https://doi.org/10.1016/0016-3287(90)90018-D).
- Salinas, L. (2018) 'The Future of Government 2030+', in P.A. Rodgers (ed.) *Design Research for Change*, p. 115.
- Salinas, L. (2022) 'Designing for local policy: exploring preferable futures in the UK', *Policy Design and Practice*, pp. 1–13. Available at: <https://doi.org/10.1080/25741292.2022.2144808>.
- Salinas, L. (2023) 'Introducing "critical service design": A paradigm shift for place-based climate action', *Touchpoint*, 14(2), pp. 60–62. Available at: <https://doi.org/10.30819/touchpoint.14-2.11>.
- Salinas, L. et al. (2023) 'Teaching Service Design: pedagogical reflections', in, pp. 202–221. Available at: <https://doi.org/10.3384/ecp203010>.
- Salinas, L., Lang, A. and Swift, C. (2022) *UAL Climate Studio*. London: University of the Arts London.
- Service Futures Lab (2023). *Anticipatory design with GOV.UK* [video] Available at: <https://www.youtube.com/watch?v=tyw0fEzK4VA> (Accessed: 16 March 2024).
- Shersby, M. (2023) *No Mow May 2023: the best excuse for not mowing the lawn*, *BBC Wildlife Magazine*. Available at: <https://www.discoverwildlife.com/how-to/wildlife-gardening/no-mow-may> (Accessed: 31 October 2023).
- The Guardian (2020) 'The urban wild: animals take to the streets amid lockdown – in pictures', 22 April. Available at: <http://www.theguardian.com/world/gallery/2020/apr/22/animals-roaming-streets-coronavirus-lockdown-photos> (Accessed: 31 October 2023).
- Thorpe, A., A. Prendiville, S. Rhodes, and L. Salinas. 2016. "Public Collaboration Lab." In *Proceedings of the 14th Participatory Design Conference: Short Papers, Interactive Exhibitions, Workshops-Volume 2*. Aarhus, Denmark: PDR. doi:10.1145/2948076.2948121
- UK Policy Lab (2016) *Exploring the evidence*. Available at: <https://openpolicy.blog.gov.uk/2016/03/07/exploring-the-evidence/> (Accessed: 9 March 2024).
- United Nations (2021) *Our global food system is the primary driver of biodiversity loss*, *UN Environment*. Available at: <http://www.unep.org/news-and-stories/press-release/our-global-food-system-primary-driver-biodiversity-loss> (Accessed: 31 October 2023).
- University of the Arts London (2021). *Sustainable Futures for Southwark*. Available at: <https://www.arts.ac.uk/about-ual/press-office/stories/sustainable-futures-for-southwark-helping-londons-borough-to-achieve-carbon-neutrality-by-2030> (Accessed: 20 July 2022).
- University of the Arts London (2022). *Introducing UAL's Climate Studio | UAL*. Available at: <https://www.arts.ac.uk/knowledge-exchange/stories/introducing-ual-climate-studio> (Accessed: 20 July 2022).

About the Authors:

**Dr Lara Salinas** is a design researcher and educator, co-director of Service Futures Lab and Senior Lecturer at London College of Communication, University of the Arts London. She leads research on public design for sustainability.

**Laura Yarrow** is Head Design for GOV.UK, Government Digital Service, UK Cabinet Office. She is also a speaker and educator with over 15-years of experience in the digital industry.

**Marion Lagedamont** is lecturer in Prototyping, Materializing and Storytelling for Design Futures. Her interdisciplinary practice sits at the crossroads of storytelling, critical design, research, and teaching. She is also a member of Service Futures Lab and Supra System Studio at London College of Communication.