The New Work Times

Table of contents

The GC Entrepreneurs – the newest innovators on the block

Minh On and Laura Portal Avelar

As GC Entrepreneurs (GCEs) we are one of the Government of Canada's (GoC) newest innovation team. Part of the GoC's efforts to upskill the federal public service and support experimental programming. We embarked on a year-long journey in policy and program entrepreneurship as the first cohort of NESTA's *States of Change* training in Canada. As the Federal Public Service gears up for *Beyond 2020*, we look back on our first year and forward to our future!

Who are the GCEs and where do we come from?
Selected by a member of the DM Task Force on Public Sector Innovation each GCE acts as an action-oriented innovation ambassador. 18 GCEs started (now we're 14) representing a diverse cross-section of "mid-career" public servants. That means policy analysts, scientists, and financial officers and IT professionals.

As members of the DM Task Force, we try to advance new approaches in the public service while transforming core systems. From grants and contributions to procurement, co-creation, and human resources. We experiment with disruptive technologies like AI, blockchain and machine learning in government.

What is NESTA's *States of Change*?
Supporting us on this 15-month leadership journey is Jesper Christiansen, Head of Strategy and Development in Nesta's Innovation Skills team. He sees *States of Change* as a way to support public servants like us adopt innovation mindsets and habits, making us more effective change agents. The training challenges us to re-examine the way we develop policies and programs in government.

World class experts are on hand to share advice and provide training on experimentation, visualization and policy entrepreneurship. They range from *InWithForward* - a Social Design Organization in Toronto - who set us loose on Toronto's Parkdale neighbourhood to conduct an ethnography exercise to understand the power of "thick data" and qualitative research methods, to expert advice from one of Obama and Clintons's top aides -Tom Kalil - who launched countless science and tech initiatives across their presidencies.

What do we actually do? How are the GCEs action-oriented?

We formed small, diverse and non-hierarchical teams to tackle thirteen diverse projects without a natural home within a specific department or agency. We are nimble and take risks by bringing a variety of skills and experiences to the table while applying their *States of Change* training in "real time".

We generated buzz for our projects with social media campaigns (#drugchecking, #myMOBI). Building momentum to support our qualitative research, prize challenges and experimentation. Connecting and co-creating with external and internal public servants, we've generated solid insights on how the GoC can help transform core systems in areas ranging from AI and HR to mental health and addiction.

The public service hails disruptive technology as a "game changer". But government processes, rules and structures remain a constant challenge for all federal departments and agencies. Yet experimentation by the GCEs highlights the potential for AI and blockchain to revolutionize the delivery of public services to Canadians. The AI for Official Languages team is exploring the benefits of AI to save time, reduce costs and improve quality in translating texts in both French and English. One day, why not all languages, including Indigenous ones? The GCEs launched a vocal campaign to assess the GoC's capabilities in AI by leading a series of interviews with AI practitioners.

The Digital Identity team examined the consequences of Canadians shifting to the digital realm. Exploring how that shift could affect services and interactions online, from government service delivery to day-to-day financial transactions.

GCEs are also looking to gain powerful insights from the use of outcomes-based programming like prize challenges and pay-for-results initiatives. The drug checking technology challenge addresses substance abuse and supports innovative harm reduction initiatives for affected communities.

After a year of this, what have we learnt?

With trust and support, public servants can ignite change in a risk-averse culture. With the right training and tools, public servants can change mindsets and behaviours by reframing complex challenges. Using prototyping or design thinking to develop scalable experiments and solutions, public servants can mitigate risks and tackle uncertainty.

Creating teams that exist outside their 'home' organization and hierarchy, allows public servants to operate with an open mind, explore new ideas or adapt methods. Embracing methods from one context to develop innovative solutions that work in a government.

What's next?

We're looking to raise our game. *Beyond 2020* is the spur for the DM Task Force to create an agile, inclusive and well-equipped public service. This first version of the GCEs nods to a future that shows how a group of open-minded, talented and resilient individuals can turn their efforts into an action-oriented team of impactful innovators.

The evolution of the GCE program

For the Impact and Innovation Unit, the program has tested new approaches to cross-departmental working as well as bringing innovation and experimentation into the Government of Canada.

Impact & Innovation Unit
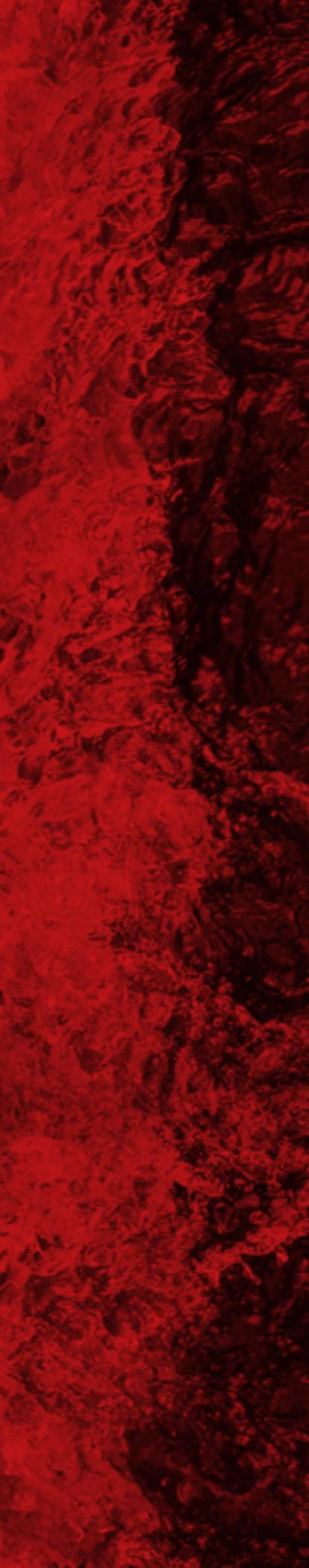
The evolution of the Deputy Ministers Task Force on Public Sector Innovation, including the introduction of the GC Entrepreneur model, reflects the broader recognition of the Government of Canada that there is a significant need for innovation in how we do our work to improve results and impact for Canadians.

What began in 2012 as the Social Media Policy Development Committee soon led to the Deputy Ministers Committee on Policy Innovation, which was set up to reflect a growing, broader government commitment to be more innovative in addressing major strategic issues and priorities. In November 2017, the Clerk of the Privy Council signaled another key evolution by renaming the Committee the Task Force on Public Sector Innovation. He went further by asking the Task Force to focus on initiatives that facilitate:

- core systems transformation to address outdated systems and processes (e.g. in grants and contributions, procurement, co-creation and human resources)
- experimenting with disruptive technologies (e.g. artificial intelligence, Blockchain, machine learning) within government

Importantly, the Clerk emphasized the need to provide public servants with skills and knowledge to achieve better results for Canadians, and asked the Task Force to recruit dedicated GC Entrepreneurs (GCEs) towards this goal. The GCE model represents a significant opportunity to test new ways of working within and across the Government of Canada. GCEs work in small, diverse teams and across departmental lines to advance a portfolio of action-oriented innovation projects designed to have a positive impact on government operations and, ultimately, the lives of Canadians. They also act as ambassadors for innovation across the federal public service raising awareness and inspiring public servants to apply new tools and approaches in their work. Ultimately, the role of the GCE is to advance concrete initiatives in support of the Task Force's mandate.

Sitting as full Task Force members at the table with Deputies, GCEs are expected to identify and promote new ways to approach policy questions, including through innovation and engagement with experts and partnerships. They have the unique opportunity to influence senior decision makers, presenting inventive solutions on topline government priorities, particularly through reporting back to Deputies on their project work. GCEs also have the opportunity to further develop their own skills and capacities through this leadership opportunity, particularly through their participation in the States of Change learning program.

While the project work the GCEs are undertaking is important, the experiment of the GCEs as a cohort is also significant. They have been asked to work across departmental mandates and without a traditional, hierarchical structure – a new and often difficult challenge. They have been asked to stretch beyond their regular lines of business and outside of their comfort levels to build cross-sectoral partnerships and propose recommendations to address barriers presented by outdated programs. At the same time, they have been tasked with understanding and piloting emerging technologies, such as the application of artificial intelligence within Government of Canada operations. Making sense of these huge issues, and proposing innovative recommendations to a table of Deputy Ministers, is a tall order for any group, and especially for one of new-to-each-other public servants coming from different departments, backgrounds and experiences.

While the challenges inherent in any new way of organizing and working are significant, so is the opportunity, and the GCEs have been able to present new ideas, approaches and recommendations for Deputies to consider to advance innovation and experimentation within their own organizations. Through their projects, the States of Change program, other informal training opportunities and introductions to a variety of networks across the government, the GCEs have grown and strengthened over the course of a year. As we move into a period of recruitment and onboarding of the second cohort of GCEs, the first will transition into playing a mentoring role – providing practical advice for navigating a non-traditional, often unknown path.

Canada's Change Agents: learning by doing.

Jesper Christiansen explains how the *States of Change* learning program supports the next generation of Canadian government change agents

Today it is legitimate to ask fundamental questions about the purpose and effectiveness of government. What do good service delivery systems look like? How do we (re) create the legitimacy of government interventions and connect better with the public in the process? What are the missions of policy-specific departments and how do they best deal with the cross-cutting problems we are facing? What are the practical implications for being and working as a public servant?

These are the questions that *States of Change* was founded to answer. Set up in collaboration with a community of innovation experts and practitioners it is a new global collective that develops and supports innovation learning for public impact. Our mission is to help governments build their capability and the right culture to deal with the complex problems they face.

We've developed learning programs that support public servants adopt innovation mindsets and habits that help them become more effective government change agents and problem solvers. We teach more than the methods of innovation; focusing on the core behaviours and the wider culture that enables innovation in government through a collaborative "learning by doing" approach.

Over the past nine months, we've been excited to partner with the Canadian government and the Impact and Innovation Unit in the Privy Council Office to support the first cohort of Government of Canada Entrepreneurs (GCEs).

The goal of the partnership has been to support the GCEs to apply innovative ways of working and to challenge business-as-usual approaches to problem-solving. Exploring new ways of organising for and delivering on innovation efforts and contribute to a wider culture change within the Canadian government.

This has meant developing a core experimental mindset. Where assumptions are challenged, problems are explored using a diverse set of methods, ideas are tested early to learn what works (and what doesn't.) In combination with the strengthening of key skills and competencies, such a mindset can enable effective use of new tools, methods and approaches to public problem-solving.

However, there is no one formula for developing new mindsets and making innovation happen in government! No problem requires the same response and being entrepreneurial in government is more craft than method. So the GCEs have been "learning by doing", testing out new ways of working and reflecting continuously on practice.

The GCEs and the IIU have been exploring and rehearsing not just new ways of working, but also new ways of building the conditions and authorizing environments for how the civil servants of the future might work. This involves the entire institution in a cultural change process. And there is no route map for how to do this. It's hard to come up with a more obvious need for "learning by doing".

This comes supported by the global and local States of Change faculty. Expertise from organisations like InWithForward on ethnography, MaRS Solution Lab on systems change, and School of International Futures on foresight as well as experts like Marco Steinberg, Geoff Mulgan and Thomas Kalil on innovation management and policy Entrepreneurship.

But, recognizing that there is no one "best practice" to support initiatives on the leading edge of public innovation practice, these experts, as well as the GCEs and the IIU, have all co-created a shared learning environment. The partnership with the Canadian government has fitted with the ethics of the *States of Change* approach: working closely and learning with the global and local community of public innovation practitioners to create a learning collective of mutual inspiration, support and guidance to enable and support participants in their learning journey.

The demise of government?

We know there is a problem, but the problem is we don't know what it is.

Marco Steinberg

On September 20, 2008 the world witnessed a most unusual press conference by then-president George W. Bush. But for many it may have passed unnoticed, it seemed a perfectly normal reflection on the economy. But it revealed a more problematic underlying struggle; the viability of our current model of government.

It was the height of the subprime crisis; we were at the cusp of the global economic crisis. From the White House lawn, President Bush spoke to the American public about this unfolding predicament. We would later realize that the problem was larger than had been originally thought, with much deeper and more fundamental underlying dynamics.

Bush arguably benefited from having the most strategic perspective possible on this challenge, yet he candidly admitted that he had been surprised by the crisis. "It turns out that there are a lot of interlinks throughout the financial system. The system had grown to a point where a lot of people were dependent upon each other, and that the collapse of one part of the system wouldn't just affect a part of the financial markets; it would affect the average citizen." Presumably many listeners were nearly as shocked by the president's surprise at those interconnections as they were by the crisis itself.

Shortly after Alan Greenspan, the then-Chairman of the US Federal Reserve Bank declared to Congress that he had suddenly realized that his model - the underpinning logic of US monetary policy for decades - was fundamentally flawed. "That's precisely the reason I was shocked because I had been going for 40 years or more with very considerable evidence that it was working exceptionally well." These were the words of arguably the greatest monetary authority in the country. The Bush-Greenspan commentary was the result of applying past logics to new questions.

Governments move best when there is clear evidence and analysis. In Finland, for example, any political reform invariably starts by examining the alternative existing models. To improve healthcare systems, for example, we might analyze the Danish, Swedish, and Norwegian models first, then adopt a variation of whichever one is deemed best. But what happens when there is no precedent to analyze? This simple question will challenge our whole public sector's way of doing. It will be a question not just of good government but of *actual survival.*

What the subprime crisis made evident were the limits of our 18th century model of governance, cracking under the pressure of an increasingly complex world. This model has politicians chart visions and public servants technically support them in getting there; it uses linear models of planning and past performance as the basis of decision making. That may work in a predictable world, but what happens when governments are confronted with increasingly ambiguous challenges?

Governments are facing challenges they are unequipped to address, let alone resolve—issues like climate change and ageing populations. Most governments are good at administering or improving existing solutions. But to be viable in the future, governments will increasingly need to have the capacity to redesign the way they conceive and deliver new solutions: They will need to innovate the model of government itself.

For the first time, the word innovation is on the lips of an increasing cadre of politicians and public servants. But is this innovation agenda transformative? Or is innovation the new shiny object, designed to distract us so government can continue in its predictable and siloed logics?

We are at a critical cusp where innovation will either be synonymous with transformation or the status quo. If we choose a transformative role, then the stress levels in government ought to be rising fast. "OK, we get it. Do we have the talent, the experience, and a strategy to respond?"

Why improvement does not equal innovation

Jerry Koh and **Alex Ryan** from Canadian public innovation lab **MaRS Solutions Lab** make the case for bolder innovation ambitions in government.

Since 2005, MaRS Discovery District has had the privilege of working with some of the most inspiring innovators in Canada and abroad. Many of our innovation partners work in the Government of Canada, and the governments of the Canadian provinces, territories and municipalities.

From our experience, one thing stands out: improvement is not innovation. If your organisation uses these terms interchangeably, or has an innovation strategy that manages both innovation and improvement in the same way, it will very likely fail to achieve anything truly innovative. MaRS Discovery District defines innovation as the invention of a new way of creating significantly more value and the adoption of this invention at scale. This definition contains three key ideas.

New way: If someone else somewhere else in the world has already invented it and made it work, it is not innovation. Call it improvement, or call it the adoption of a good idea. If the invention itself is not new, but the policy or the business model is, then be precise and qualify where innovation is happening.

Significantly more value: Innovation is not a 10% gain in efficiency or effectiveness (1.1x). Innovation should aim for 10x gains in value creation. Why? Because 10x forces you to re-examine fundamental assumptions, diverge from business as usual, forge unlikely partnerships, and experiment with new technologies, business models, and organisational forms.

You won't always achieve 10x. Maybe you only make 2x. But that's still 90% more than if you aimed for 1.1x. Plus, you'll learn faster and differently. Which means:

innovation is high uncertainty, high return work. And there are no shortcuts to high returns. It's not going to happen in an ivory tower or a shiny lab disconnected from core government business.

When you have a bold goal, you need the fuel, air cover and runway to match. Innovation projects should start out lean and agile, but the successful ones will grow into major transformation initiatives that enhance government's legitimacy, effectiveness and efficiency. The unsuccessful ones should be terminated – and their learnings harvested – when they fail to achieve liftoff. This frees up the resources needed for new innovation.

Adoption: When invention becomes adopted at scale, it becomes the new normal. This is why we talk about Nikola Tesla as the inventor who was ahead of his times, but Thomas Edison as the innovator. This is also one of the trickiest aspects of innovation. Innovation efforts have to be bold and pushing boundaries, yet at the same time be plausible and timely. The delay between invention and adoption is often measured in decades, for two reasons. Firstly, new inventions rarely work optimally at inception. And secondly, new ideas are also usually rejected or resisted by the prevailing system in proportion to their novelty. Adoption of a truly disruptive idea requires systems change: coordinated shifts in resource flows, policies and regulations, social values and infrastructure. For example, disruptive innovations like Napster, Bitcoin and Airbnb had to first operate outside the law or in regulatory grey zones before laws and social norms could adjust and adapt.

We often hear senior leaders say they do not want to define innovation too clearly so there is room for flexibility

and interpretation. Yet this is the number one complaint we hear from civil servants. There is no clarity on what innovation is, how to know which projects are innovative, and how to prioritise innovation when and where it is needed most. When we differentiate innovation from improvement, it enables government to:

Set an innovation agenda that is bold, clear, actionable and highly differentiated from the status quo. The Government of Dubai and the Mohammed Bin Rashid Centre for Government Innovation sets a useful example.

Create a portfolio that balances innovation and improvement. Resource investments can be intentionally allocated using a portfolio management framework, which differentiates between innovation and improvement. Most governments invest in many more improvements than innovations, and this is usually appropriate.

Manage innovation projects differently than improvement projects, especially with respect to priority setting, resource management and risk management. Innovation is resource intensive and has high uncertainty, requiring comparatively more investment in divergent and exploratory activities. Improvement initiatives require predictable resources and yield smaller but more predictable gains that tend to diminish over time.

Attract innovation talent and build innovation teams. Nesta's competency framework (see page 11) suggests that innovation teams require leaders, learners and collaborators. Doblin's ten types of innovation suggests that designers/researchers, engineers and business developers form the core of an innovation team. Sergio Marrero coined these four roles; the hipster, hound, hacker and hustler. Whichever framework is used, the innovation team also needs to understand both government and the specific problem domain. Innovation requires content as well as process expertise.

We have defined innovation as the invention of a new way of creating significantly more value and the adoption of the invention at scale. This definition is useful because it differentiates innovation from improvement. It informs government how to set an innovation agenda, create and manage a portfolio of innovations and improvements, and build well-rounded teams to implement on the agenda. Improvement and innovation are highly complementary dual processes. When they are confused in the public service, both suffer, and genuine innovation stalls.

Innovation ≠ improvement
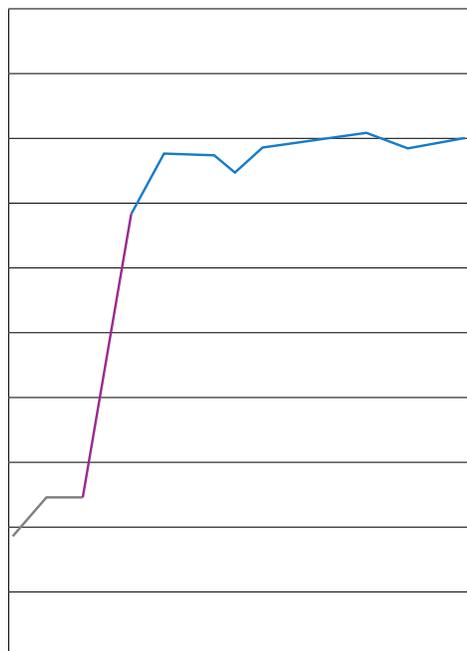
Improvement THEN lifts you to the <u>best</u> best place

Improvement is a focused/targeted engineered effort with predictable gains and resource utilization

Innovation leaps you to the <u>worst</u> best place

<u>Innovation is focused on making great gains in value creation, with no precedence and little predictability</u>

The current state

The current state has to be undesirable enough or simply isn't worth improving to warrant innovation over improvement

Adapted from Kaiser Permanente

Skills & attitudes for public problem solving

Created with experienced government innovators, this competency framework from **Nesta's Innovation Skills Team** captures the key skills needed to tackle complex problems in government.

When bringing innovation practice into the public sector, we often see that the focus is on learning new methods. These are of course valuable, but we've found that - in isolation - they are not enough. In order to use any new method effectively, you also need to understand how to create the appropriate conditions for it to work, and how to then manage innovation projects within both bureaucratic and political contexts.

We've found that the effort required to create this space and legitimacy for innovation in government is often significantly underestimated. Good ideas can't flourish in a hostile environment. So we believe that any innovation learning needs to go beyond just methods and tools to focus on a core set of skills that cut across these methods.

The Nesta Competency Framework is a step in that direction. It emphasises the behaviours and attitudes of people who make innovation happen through experimental problem solving. By this we mean exploring problems from new perspectives, and then testing and iterating possible solutions to quickly learn what works and what doesn't. This is essential to accelerate learning, test assumptions and discover the most effective function, fit and probability of new solutions.

To create the framework, we worked with over 30 leading public sector innovation practitioners and civil servants from around the world. We've also tested it with selected governments and innovation experts to try and ensure accurate representation, relevance and usefulness.

The framework itself is divided into three core categories that – from our experience and research – are crucial to form the basis of successful experimental problem solving:

Accelerating learning: Exploring and experimenting to identify knowledge gaps, create new understanding and inform decision-making in new ways

Working together: Engaging with citizens and multiple stakeholders to ensure co-creation and collaborative ownership of new solutions

Leading change: Creating space for innovation and driving change processes to mobilise people, inspire action and ensure strategic outcomes

It's important to note that the framework is built around teams rather than individuals. Teams are central to successful problem solving, and this diverse palette of skills and attitudes is rarely found in one individual. Instead, they should be present within a wider team.

As with many competency frameworks focused on change and innovation, there is a risk of it becoming a static, aspirational artefact rather than a practical tool for shifting practice. In this light, we see this framework as a starting point, and we're continuing to test how to use, adapt and develop it.

Ultimately, growing the innovation skill sets and capabilities of the public workforce requires informing hiring practices, career development and training opportunities. It also requires creating the right incentives, processes and structures for public sector innovation. Governments are often aware of all this, and yet struggle with knowing where to start. We hope that this framework can be a first step in supporting these efforts.

Citizen & Stakeholder Engagement

Actively involving citizens, stakeholders and unusual suspects

Creative Facilitation

Creatively processing different perspectives and deliberating multiple options

Building Bridges

Orchestrating interaction to find common ground and create shared ownership

Brokering

Mediating contrasting interests and reducing friction between multiple stakeholders

WORKING TOGETHER

Engaging with citizens and stakeholders to create shared ownership of new solutions

Empathetic

Understanding others' experiences and frames of reference

Agi

Respond changing env with flex

Resilient

The perseverance to deal with resistance

Competencies for

EXPERIMENTIN PUBLIC PROBL SOLVING

Imaginative

Exploring and envisioning new possible futures

Political & Bureaucratic Awareness

Operating political dynamics and bureaucratic procedures to ensure strategic support

Financing change

Understanding the many ways to liberate and use financial resources for innovation

Intrapreneurship

Being insurgent and use business acumen to create opportunities

Demonstrating Value

Articulating the value of new approaches and solutions for decision-making purposes

Storytelling & Advocacy

Using narratives and media to articulate vision and information in compelling ways

Outcomes-focused

Strong commitment to real world effects

Cou

Willing

LEADING CHANGE

Mobilising resources and legitimacy to make change happen

le
ing to
vironments
ibility

Action-oriented
Biased towards action and learning by doing

Curious
The desire to explore multiple possibilities

Reflective
Habit of critically reflecting on process and results

**IG &
LEM**

rageous
gness to take risks

ACCELERATING LEARNING

Exploring and iterating new ideas to inform and validate solutions

Future Acumen
Connecting long-term vision with short-term achievable tasks

Prototyping & Iterating
Testing ideas and systematically improving them

Data Literacy & Evidence
Using different kinds of data effectively to accelerate sense-making

Systems Thinking
Combining micro and macro perspectives to grasp complexity

Tech Literacy
Understanding technological developments and use their potential

Changing Course

Michael Haber, Leanne Lalonde, and Victoria McLean explain how listening to citizens and working in the open helped develop a new government initiative

In February last year, Health Canada and the National Research Council brought together a diverse group of stakeholders, from federal employees to emergency responders to people who use drugs, for a workshop on the opioids crisis.

The roots of the current opioid crisis in Canada are complex. Illegal drugs are unpredictable, with the dose, quality, and composition unknown and inconsistent between batches.

In partnership with the Privy Council Office's Impact Canada Initiative (ICI), which aims to accelerate the adoption of outcomes-based approaches by federal departments, the workshop explored questions about technology and funding:

- Could new technologies better protect first responders from accidental exposure to opioids?
- Could new government approaches to funding, such as challenge prizes, prompt the development of these technologies?

At first, the focus of the workshop seemed clear, but the outcome was unexpected. It wasn't first responders who would most benefit from new solutions to test for opioid exposure. It was those people using drugs who most needed new ways to check if drugs were tainted with dangerous amounts of opioids.

Engaging with stakeholders at the outset *enabled those who would be impacted by the policy* to guide the government to this important pivot point. Without an open mind from the departments involved, we could never have had this significant change in direction.

Outcomes-based approaches, such as challenge prizes, are a new way of working in the Government of Canada. "I think we've heard it all - you can't work with stakeholders to co-design a project, you can't fund programs this way, the private sector isn't interested in this kind of work, etc. Thankfully, we have met a growing number of public servants that are dedicated to working towards a "yes" and see the possibility in the new partnership and funding models we are advancing to make a meaningful difference in the lives of Canadians," says Rodney Ghali, the Assistant Secretary at PCO responsible for the ICI.

Following the workshop, Health Canada and its partners continued with another round of targeted public engagement to further explore and refine this new focus. The Drug Checking Technology Challenge was launched in October 2018 and public engagement continues to play a major part in its implementation. The jury panel is made up of private sector entrepreneurs, technology experts, and includes citizens who have been directly affected by the crisis.

But this kind of experimentation has not been limited to an isolated case; the government has begun leveraging participatory, challenge-based approaches elsewhere. The Indigenous Homes Innovation Initiative, led by Indigenous Services Canada with ICI support, was designed to ensure that it respects the distinct needs of each Indigenous group in Canada. An Indigenous Steering Committee composed of seven First Nations, Metis, Inuit and urban Indigenous experts are leading 'from start to finish' the design and advancement of this challenge prize.

ICI has been documenting the development of these challenge prizes openly on its website and through blogging. As a result, other potential challenge-prizes can learn from our experience.

These are being explored by other departments too. The Northern Food Security challenge, for example, will be able to learn from the course correction experienced with the Drug Checking Technology Challenge, and from the citizen engagement and guidance prioritized with the Indigenous Homes Innovation Initiative.

AI in Government: Hidden in the shadows

Mathieu Audet and David Baines argue that the Government of Canada can't get left behind by the AI revolution.

Imagine a civil servant. Let's call them 'Carol'. She's exhausted. It's Tuesday evening after a long day and she's at home working into the night. Burning the midnight oil. She pays - with her own money - for processing time to conduct analysis of a huge amount of data she needs to do her job. Most people don't know that you can even do this. Carol isn't most people.

She's been learning about AI online and through open source software in her spare time. With a massive amount of data to process, analyse and make sense of no single person has the time to sift through it all. That's why Carol's using the latest AI. The results speak for themselves and it doesn't take long to convince her team at work that it's time they started using AI in the office.

This is one example of how AI makes its way into government. But it shouldn't be this hard to adopt new technologies that can make our work better and faster.

AIs potential for government work is vast
Bringing together advances in computational power and data from sources new and old, the field of AI is growing at a frantic pace. It's transforming our economies and societies whether it's helping us diagnose the early onset of a disease, suggesting what series to watch next or being able to drive a car.

Governments, with their wealth of data and the high volume of work that we do with citizens, are particularly well positioned to benefit from the adoption of AI. It has the ability to increase the efficiency of our work, reduce costs, and improve the quality of services.

For most, AI is a known unknown
The concept of AI is used regularly but like many new approaches, it's not fully understood. As GCEs, we saw that if as a government we were to fully exploit this new technology, there was a need to better understand its potential. We went straight to the source and interviewed AI practitioners. We found 25 of them through internal government social networks and message boards. These interviews represented 20 departments and agencies and reflected the experiences of approximately 350 AI practitioners.

From the basement into the office
The AI scan revealed that Carol isn't alone. What we found is cases like Carol's are not the exception but the norm in the Government of Canada. Our government data sets, including back-office processes, HR data, and client services data, in conjunction with public data, such as social media, hold enormous potential for AI. But the reality is Canadian Public Servants are acquiring their AI skills during their personal time. There's little or limited investment or support from their employer.

Our general knowledge of AI and its application are poor. We're missing opportunities to modernize our data and analytics. A lack of knowledge when dealing with private sector AI vendors and a lack of trust in AI solutions sets us behind and vulnerable to snake-oil sales. Only the most resilient, resourceful, skilled and passionate individuals are emerging in this current AI ecosystem and leading the way for the Government of Canada.

Given the increasing trend towards the use of AI, unless government effectively navigates this new reality by building experience and expertise it risks being left behind. The potential for AI in government is huge but only if it is able to harness and develop its potential.

Putting people first

How the future of government is in human-centered management

Joyce Silver and Adrian Senn

I sat down with Adrian Senn to discuss his role as a Government of Canada Entrepreneur (GCE), and talk about the workplace dynamics of interacting with leadership. Experience tells us that the quality of that interaction directly correlates to an organization's ability to innovate. But hierarchies can naturally intimidate, and can, unfortunately, create fear.

The topic has recently been back in the news with recent allegations that US Presidential candidate Amy Klobuchar has a track history of demeaning and intimidating relationships with subordinates. The New York Times recently reported that "many of these former aides say she was not just demanding but often dehumanizing". Organizational culture of fear is a common and persistent issue in the workplace. While fear may be an exception for many, it is fair to say that most of us have experienced intimidation that interacting with superiors can bring about.

"What do you think a Facebook engineer would feel if suddenly asked to work with Mark Zuckerberg? That's a little like being a GCE was for me." Adrian starts us off.

As a GCE, Adrian was assigned to the Deputy Minister Task Force on Public Sector Innovation. This is an action-oriented committee focused on advancing opportunities for significant innovation in how the Government of Canada delivers programs and policy advice. His newfound role meant working with former Associate Deputy Minister of the Canada Revenue Agency, Nancy Chahwan. In a normal context their working dynamic would be colored by hierarchy, maybe fear as the Klobuchar case makes clear.

Having done lots of preparation, Adrian walked into the interview for the job relatively confident – this was his chance to impress a Deputy-level executive! Filled with hubris, he reached out to shake hands only to knock over a glass of water. A moment of fear set in as he waited for the workplace power-dynamic to kick in. But to his great surprise, his counterpart's response was humane and in so doing, set the tone for the development of a collegial, not hierarchical, relationship.

And it did not end there. At the first Task Force meeting, the Clerk of the Public Service (the highest public servant) came to speak to the new members. At one point, Nancy subtly leaned over to encourage Adrian to ask a question. Despite the difference in levels between them, she continued to encourage Adrian to voice his opinion; to empower him.

"Meeting with leadership in an Agency of 40,000 is extraordinarily rare. The occasional encounter is usually far more stressful than instrumental" Adrian reflected. "I really had little experience for how to interact with someone of such power, let alone in a context of innovation. But my Deputy was proactive in bringing me in. She would ask me whether I had any concerns about a project". He later learned that it was in such opportunities that he had been able to shape the path of government initiatives. He realized that the GCE program had not only became instrumental in helping to cultivate a new kind of working culture but also a new set of experiences and skills.

The program tapped into the systems level knowledge and authority of deputies and paired it with the capacities of working-level public servants. This collegial dynamic empowered new opportunities for the organization to flourish. It's fair to say that innovation is most likely to happen when people are relaxed, not when they are fearful and dehumanized.

While Adrian's GCE term is coming to an end, he recognizes that human-centered management must be a defining characteristic of a transformative government leadership style.

Don't boil the ocean

How starting small is better than not starting at all and enables a small team to drive system change.

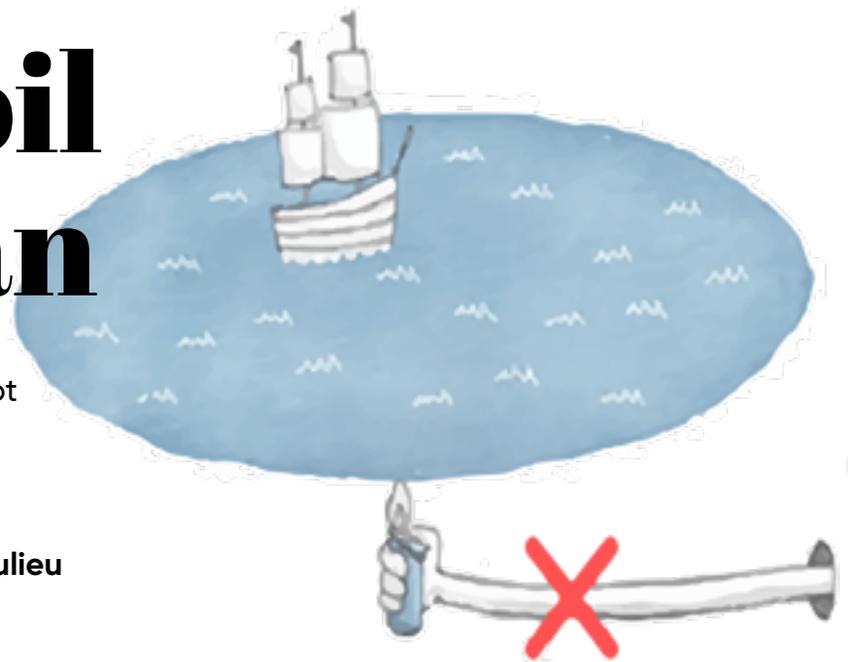**Ismar Fejzic and Julien Aubin-Beaulieu**

In the summer of 2018, a group of Canadian public servants were asked to tackle a big question – how can the Government of Canada get the right people, into the right jobs, at the right time? With the public sector needing civil servants that can respond to more and more complex realities, being able to hire, retain and grow the right talent is essential. Most managers we spoke to agreed that this was an important problem, but it was so big that our team did not know where to start.

Every good suggestion put forward brought with it five more questions. How can we understand what the current reality is for the government of Canada? Should we carry out an ecosystem scan? Should we identify and evaluate existing HR programs? Should we replicate and scale them? Where do we start? And how can we, as GCE Entrepreneurs, make a difference?

The scope was so broad that it felt like they were trying to boil the ocean.

We knew that to get something done, we had to start somewhere more defined. Following early quantitative research and interviews with key experts, part of the team changed their focus to cross-sectoral mobility. More specifically, federal public servants leaving government, gaining new skills and experiences in other sectors, and then returning to government better equipped to serve Canadian citizens. We called this mobility out and back in (MOBI) and it was from this that a project was born to explore the issue further. The horizontal mandate of the GC Entrepreneurs gave us license to go out and talk to employees at all levels to truly understand Canadian public servants' experiences of MOBI and identify what this could teach us about HR more broadly.

Through interviews, online engagement, and design workshops we have been able to develop concrete recommendations for both system-level and department-level changes. However, a well-defined project scope was more important to the success of our project than any specific tool or methodology.

When it comes to dealing with complex public challenges, there is a tendency to end up in two opposite but equally unhelpful places. Either public servants are asked to work from very broad, vague briefs that give very little direction or useful support. Or we are asked to deal with complex issues through very specific project proposals outlining most features of both the plan and future solution. Neither is serving the public very well.

In public sector innovation, there is often too much faith in the potential of new methods to solve complex issues through one great project or intervention. If it were that simple, we'd have done it by now.

Below, we share eight lessons learnt on the importance of being smart about the scope of our work. Reframing briefs serves us well when we want to:

1. Develop a sense of ownership and passion for projects
2. Keep up momentum for research and development in an area with many contradicting interests and perspectives
3. Break down complex system level change into specific, manageable tasks that team members can tackle
4. Develop subject-matter expertise to build credibility within the existing policy area
5. Identify existing experts and gatekeepers to ensure their views are reflected within our findings
6. Create a shared sense of ownership over the recommendations we planned to make to the Deputy Ministers Task Force on Public Sector Innovation.
7. Ensure there was grassroots support before seeking buy-in from the top.
8. Enable a process of creating a strategic plan for future phases of the mobility project that could be tackled by new cohorts of GCEs

Lab Legacies

We discuss the politics of government innovation with **Juan Felipe Lopez**, previously executive director of Chile's national government innovation lab Laboratorio de Gobierno.

From 2015 to 2018, Juan Felipe Lopez was the founding executive director of Chile's first national innovation lab, Laboratorio de Gobierno. The lab's mission is to better understand and tackle complex problems, to create a better relationship between people and government based on enhanced trust, and to deliver better public services. To achieve this the lab runs numerous initiatives, including a capacity building program for public servants, an open innovation platform that seeks solutions to public challenges and a national innovation network for government.

What was the mandate for your innovation work?
We had a mandate from the presidential level when we set up Laboratorio de Gobierno. So, on the one hand, we had support from high up in government, but on the other, we weren't at the very top - forcing our agenda on everyone below us. That's not what we would have wanted, and I don't think we would have had the success we did if we were positioned that way.

What was the role of your lab?
We may have started with a mandate from the presidential level, but not everyone wanted us to exist! In just three years, we had to set up an entirely new institution and prove its usefulness. This meant we had to be focused from the very beginning on what we were looking to achieve. Our key early question - which is often forgotten - is why are we setting up a lab? We didn't want this to be an abstract idea with no tangible purpose. It had to have clear parameters around what our role in government would be. This needed to be broad enough to get buy in from groups across the civil service. We decided the best focus, for us, would be

to concentrate our efforts on tangible, concrete projects. This way, we could hit the ground running; testing our approaches and skills as early as possible and begin to prove our worth.

What advice would you give to people with less of a mandate?
It doesn't matter where you are in government (or even if you are out of it). Make yourself useful or relevant! Prove this to people and get them on board. Soon they will be vouching for your methods and snowballing the whole process, getting other people on board. Secondly, the benefits of someone who is politically savvy can't be underestimated; someone who understands the political landscape and who speaks in the same terms as government. This will help immensely when it comes to proving your worth.

How did you deal with political change?
In Chile, our lab was founded by a socialist government but it's existence today under a right-wing president is a testament to our work and our ability to convince people
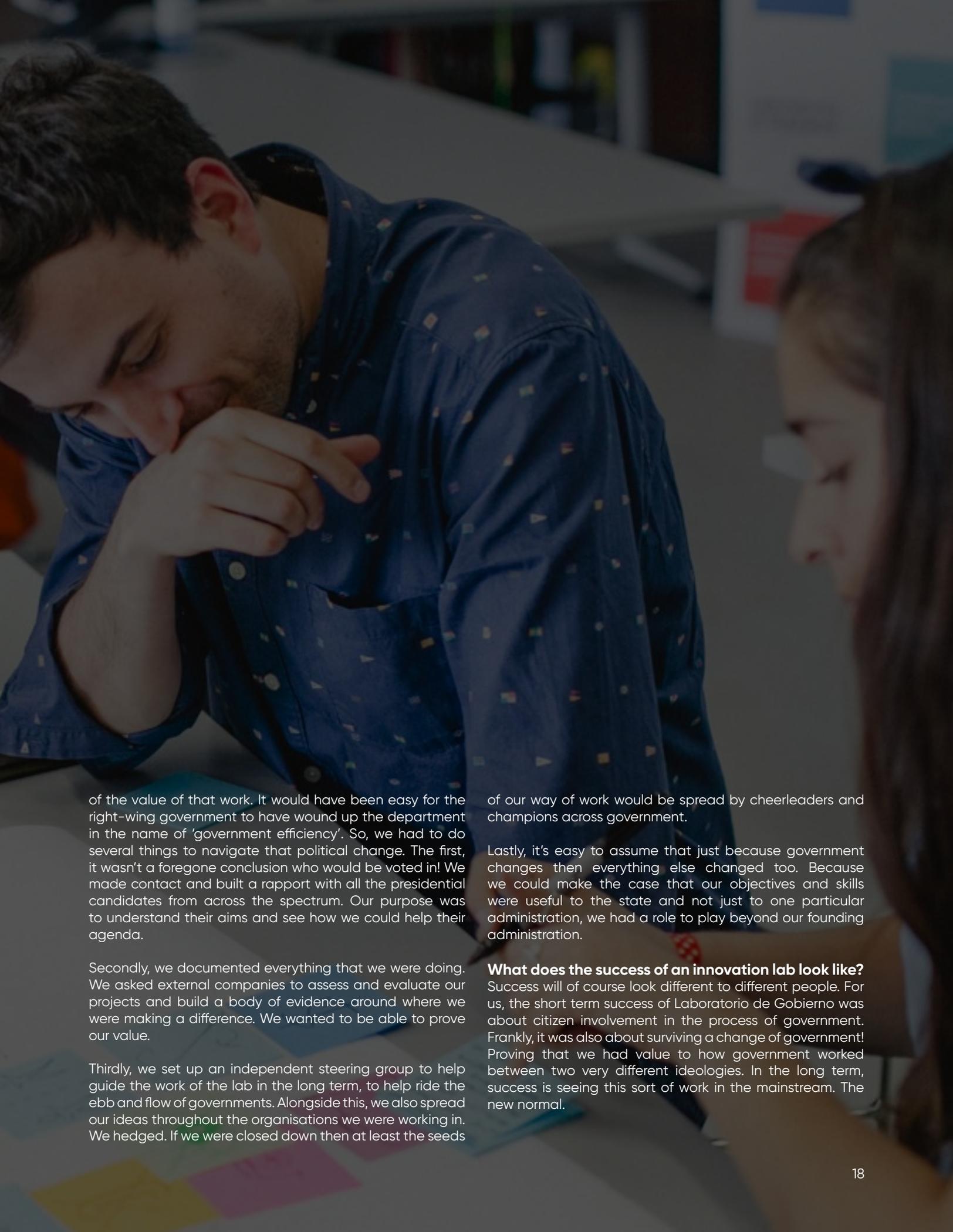
of the value of that work. It would have been easy for the right-wing government to have wound up the department in the name of 'government efficiency'. So, we had to do several things to navigate that political change. The first, it wasn't a foregone conclusion who would be voted in! We made contact and built a rapport with all the presidential candidates from across the spectrum. Our purpose was to understand their aims and see how we could help their agenda.

Secondly, we documented everything that we were doing. We asked external companies to assess and evaluate our projects and build a body of evidence around where we were making a difference. We wanted to be able to prove our value.

Thirdly, we set up an independent steering group to help guide the work of the lab in the long term, to help ride the ebb and flow of governments. Alongside this, we also spread our ideas throughout the organisations we were working in. We hedged. If we were closed down then at least the seeds

of our way of work would be spread by cheerleaders and champions across government.

Lastly, it's easy to assume that just because government changes then everything else changed too. Because we could make the case that our objectives and skills were useful to the state and not just to one particular administration, we had a role to play beyond our founding administration.

What does the success of an innovation lab look like?
Success will of course look different to different people. For us, the short term success of Laboratorio de Gobierno was about citizen involvement in the process of government. Frankly, it was also about surviving a change of government! Proving that we had value to how government worked between two very different ideologies. In the long term, success is seeing this sort of work in the mainstream. The new normal.

Words of wisdom from White House policy entrepreneurs

Thomas Kalil spent 16 years working at the White House, and here he shares the maxims that drove his team's entrepreneurial approach to policy work.

As a States of Change faculty member, Thomas Kalil was one of the experienced practitioners the GCE cohort were able to hear from firsthand during the States of Change learning programme. He served under both the Clinton and Obama administrations, and most recently as Deputy Director for Policy for the White House Office of Science and Technology Policy (OSTP). During that time, he and his team helped design, launch and sustain dozens of science, technology and innovation initiatives.

As part of this he championed the idea of policy entrepreneurship – what he describes as "generating or spotting new ideas and taking the steps needed to identify and evaluate policy options, support a sound decision-making process, ensure implementation, and monitor the effectiveness of the president's policies and initiatives."

Most of the OSTP staff had never worked at the White House, and many were new to the federal government. To help them with the onboarding process, Kalil and fellow OSTP staffer Kumar Garg created the "Team Kalil whiteboard", featuring their favourite maxims for getting things done - a list that we're sharing here as inspiration for any policy entrepreneurs out there.

- Schedule is your friend
- Steer, don't row
- Have an opinion
- Think of the end at the beginning
- If you had 15 minutes to pitch POTUS, what is on your list and are you working on it?
- Entrepreneur = someone not limited by the resources directly under their control
- If you want people to do something, make it easy
- Write it down. Make it happen.
- Strong relationships are built on trust, mutual understanding, and reciprocity
- People never follow up
- Find your doers
- Talk to who owns the paper
- Better to light a single candle than cry out in the darkness
- You can get more done if you don't care who gets the credit
- Don't be a bottleneck
- Water on stone
- Just add talent
- We are all captives of our experience
- Do you have escalation dominance?

From R&D to relationships

Sarah Schulman from social design organisation **InWithForward** explains why they're shifting their focus from increasing organizational capacity to finding and mobilizing community resource.

We came to Canada with a hunch: that if we increased the capacity of social service organizations to do Research & Development, we could create the conditions for innovative solutions to stick. Four years, 22 teams, and at least 26 prototypes later, we've amassed rich learning about how to ask big questions, collect ethnographic data, generate ideas, and leave behind the comforts of our biases to test interactions.

Two of these 26 prototypes — and maybe now a third — have had some real legs. That means, they aren't just a learning exercise; they exist and are impacting actual lives. So we've got an 11% hit rate (for comparison, pharmaceutical R&D averages 4.9%). Shouldn't we be happy? Aren't we just expecting too much, too fast? Probably. The question is whether we're building capacity for the right things. Are we building capacity to adopt R&D methods or are we building capacity to shift our social safety nets into trampolines?

Most of the ideas that emanate from our R&D processes are not game changers. And that's ok. What's less ok is when ideas perpetuate tired assumptions and reinforce outdated social theory. Over the past year, we've come to see our emphasis on organizational capacity as unduly limiting. One tired assumption is that organizations and the services they provide are the best levers for shifting outcomes. Really, relationships are the levers for change. For example, Krazy was recently released from prison, and self-medicates to stay awake and safe. Government services haven't always worked for Krazy – he's frequently escorted out of offices, his frustrations rubbing against their customer service protocols. But, he has struck up a rapport with a local housing worker, who has been able to advocate with government services on Krazy's behalf. That relationship has smoothed the way for benefits to flow. Whether he is able to use his benefits to rent a basement apartment will come down to his relationship with the potential landlord. It's his relationship with his friend group which will likely shape his motivation and opportunity to stay on the right side of the law. And it's repairing his relationship with his estranged daughter that just might influence his future outlook and behaviors.

Most innovations won't get to this deep level. Sure, new products and new services can be instruments for change, but it's far less about 'the things' and far more about how the things are used, by whom, for what ends. When we myopically focus on innovations, we fall into a false binary of problem and solution. We miss out on the values and interactions which give a problem form, or a solution shape. And that's what we've seen – despite trying different ways to build capacity within organizations, we've not managed to consistently direct that capacity towards new logics.

Where we have progressed from ideation to implementation, we've found staff with entrepreneurial grit willing to take ownership. And we've moved beyond organizational boundaries – to involve a much wider range of stakeholders, mobilizing new constituencies and creating some operational distance from the incumbents.

So this year, we're iterating our capacity building practice. We're calling it Grounded Space 2.0. Our focus will no longer be on increasing organizational capacity – but instead finding and mobilizing community resource. Recognizing that the architects of the current systems are unlikely to deconstruct those same systems, we'll seek out a wider range of collaborators.

And we hope to be clearer about what we're directing our collective energy towards: re-imagining roles and relationships between people and between people and place. In doing so, we're seeking to create more moments of beauty, joy, gratitude, forgiveness, fortuity, connection, love, and awe. Because when it comes right down to it – a flourishing life, a life undergirded by trampolines – is made up of a series of moments. Not just innovative products or services.

Engineering serendipity in public sector innovation labs

Glen Mehn from Nesta gives some practical advice on how innovation labs and teams can make the most of happy accidents.

There is a very old folktale that dates back to the Sassanid Empire about the Three Princes of Serendip, who travelled the world, making discoveries. These seemed to be accidental, but the discoveries were reinforced by the princes' wisdom in recognising and taking advantage of these apparent accidents. During the 18th century the art historian and antiquarian Horace Walpole brought the word "serendipity" into the English language based on this story, in which the heroes were "always making discoveries, by accidents and sagacity, of things they were not in quest of".

Most dictionaries define serendipity along these same lines, such as this one from the Oxford English Dictionary: "The faculty of making happy and unexpected discoveries by accident". What they leave out, however, is what Walpole calls the "sagacity": it is not enough to only experience the accident, we must also be prepared for it.

People often dismiss others' achievements as luck. And there is, indeed, an element of luck involved with any innovation. More important than luck, however, is to both notice and take advantage of the chance encounters that exist. Although it's often implicit rather than explicit, the core job of an innovation lab could be said to engineer serendipity.

1. The more visible services that innovation labs often provide are building networks, providing resources, developing skills, and offering space: each of these lend themselves to either presenting more opportunities (the accidents above) or giving innovators the ability to take advantage of those accidents. Ohid Yaqub, a biochemist turned social scientist at the Science Policy Research Unit at Sussex University in the UK, has done a historical analysis of serendipity across several hundred examples, and he has classified these into four types:

2. Research in one domain leading to a discovery in another — at 3M, the search for a strong adhesive led to a weak but durable adhesive, and the post-it note was born (and innovators love their post-its).

3. Pure research that brings about a discovery — such as how X-rays were discovered.

4. Making mistakes and still "getting it right" — such as Alexander Goodyear's vulcanisation discovery.

5. Useful things we don't know what to do with — shatterproof glass was first observed in a dropped laboratory flask, but it wasn't until 23 years later that it was used in cars, skyscrapers and eventually bulletproof glass.

While Yaqub's research is at a very early-stage, his models can inform reflection sessions and provide frameworks to people running innovation labs. It's important to recognise that, whilst there is an element of chance in innovation labs, hard work is also required to take advantage of that chance. Here are some suggestions for how to do so:

Beware of big goals; be micro-ambitious: Public sector innovation labs often start with major goals: to transform the public sector, integrate health and social care, build a more equal society. Much like the glass beaker that turned into bulletproof glass decades later, it is important to focus on the lab's immediate tasks. This is another way of thinking about experimental culture.

Allow things to take their own path: Often in the public sector, someone is hired and tasked with innovation. A city planner might be tasked with solving a transport problem, only to discover something new whilst experimenting — perhaps, for instance, around ambulance scheduling, which is to do with transport but not strictly their job. Allowing that exploration to continue can generate significant learning opportunities and lead to significant impact.

Focus on teams, not individuals: Both Steve Jobs and Steve Wozniak were necessary to get Apple going. We all have things we're good at and things that we need help with. Assembling a team with the right collection of skills can be the difference between successful projects and not. It means that you'll have more chances to see the happy accident, and more skills and opportunities to take advantage of it.

Reflect constantly
A culture of reflection is one of the core behaviours in successful innovation teams. It not only allows teams to identify what's gone wrong and how to fix it, but also to share learning and understand what opportunities there are.

Crossword
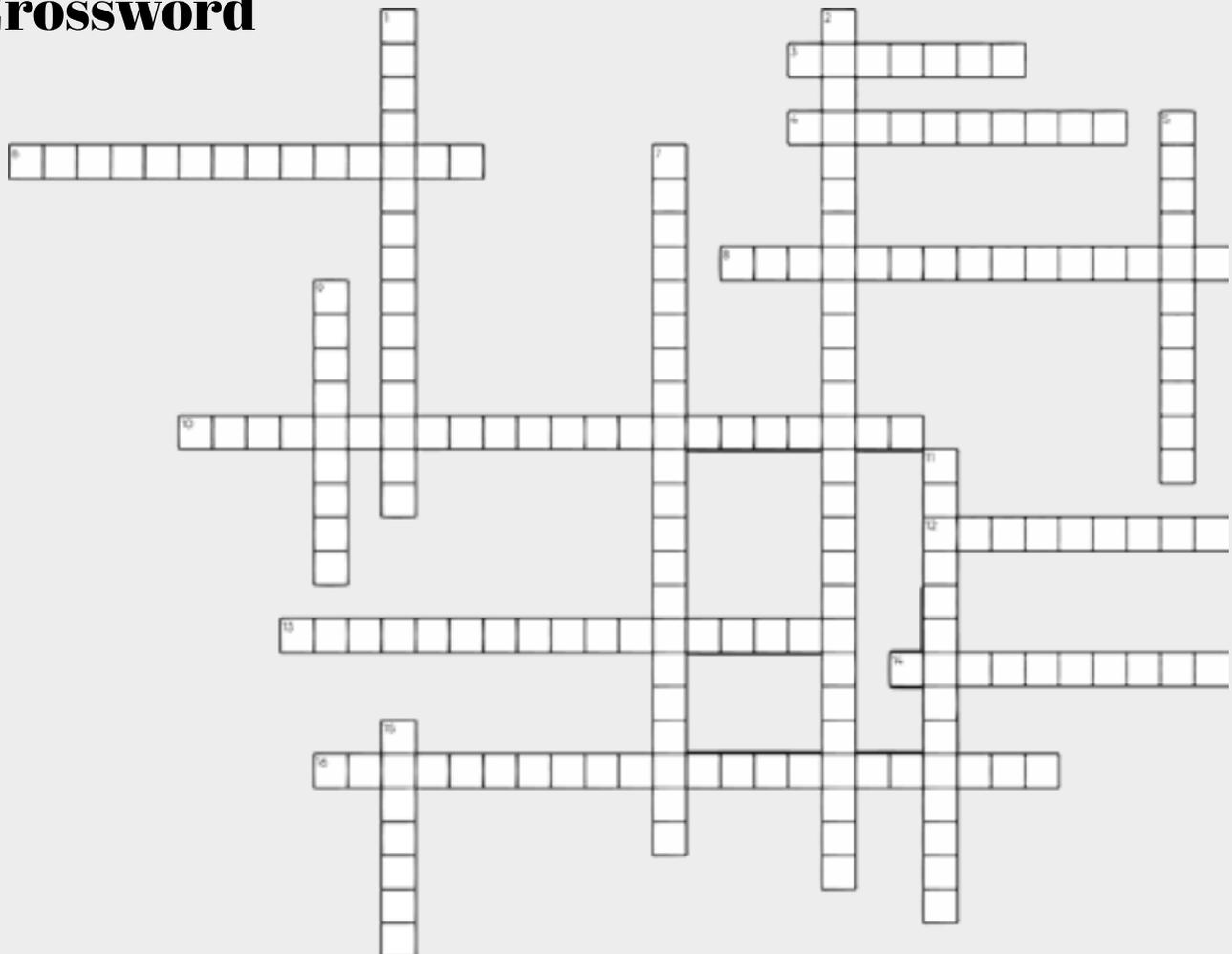
ACROSS

3. The set of shared attitudes, values, habits, goals, and practices that characterizes an institution or organization (7)

4. Distributed ledger technology used in various forms, the most famous implementation is in BitCoin (10)

6. A methodology that provides a solution-based and user-centred approach to solving problems (6,8)

8. The systematic action or process of trying out new ideas, methods, or activities (15)

10. A type of experiment which aims to reduce bias when testing an intervention in which the people participating are randomly allocated to validate a potential solution (10,7,5)

12. The act of growing a successful experiment in a calculated and iterative way throughout the rest of the eco-system, also known as growth in the private sector (7,2)

13. An approach to delivering a modern government by using today's technologies to implement and design how it serves its citizens (7,10)

14. Innovative or groundbreaking intervention on the verge of causing trouble (10)

16. A branch of computer science that is focused on developing computer systems that tackle tasks normally reserved humans (10,12)

DOWN

1. A sub-division of Artificial Intelligence that makes use of large sets of data to train a neural network to generate an algorithmic model towards specific outputs (7,8)

2. hese organisations are giving policymaking and public programme design an injection of creativity and experimentalism (6,6,10,4)

5. The systematic study of cultural phenomena where the researcher observes society from the point of view of the subject of the study (11)

7. The intentional process designed to address the root causes of public problems and fundamentally alter the components and structures that cause it (7,14)

9. A first, or preliminary model of something that helps to test the use and function of a product or service early, from which other forms are developed or copied (9)

11. The combination of two design methodologies that aims to address the shortcomings of both design thinking and systems design (8,6)

15. A design methodology based on a cyclic process of prototyping, testing, analyzing, and refining a product or process (7)

Looking for the holy grail of Greater Impact?

Nesta's **Kelly Duggan** on the need to focus on mindsets rather than innovation methods to achieve greater impact.

Credit: Photo by Jason Wong on Unsplash

STATES OF CHANGE

www.states-of-change.org