Module 2: Innovation Mindset: From Idea to Implementation

Introduction

"Move fast and break things" was Mark Zuckerberg's famous credo for entrepreneurs. "Unless you are breaking stuff," he said in 2009, "you are not moving fast enough." This phrase came to epitomize the Silicon Valley start-up culture that has redefined modern life in the last decade.

But in government, of course, we don't want to break things, we want to fix them – and improve people's lives.

While the idea of 'breaking things' is clearly ill-suited to the purpose of the public sector, 'moving fast' speaks to the ambitions of today's enterprising public servants who want to solve public problems by doing things differently.

After all, the way we are used to doing things in government is often simply too slow and too disconnected from the people we are trying to help.

Our current ways of working provide little opportunity for course correction or improvement.

There is widespread perception government is not working as well as it ought to.

Our institutions and mechanisms for policy making were built for a different time—an era with fewer citizens, a slower pace of information dissemination, and a data capacity that is a fraction of what we have today.

Learning Objectives
In this module, you will:

1. Develop an understanding of the concept of the new changemaker in government, or, what we are calling the public entrepreneur.
2. Get an overview of some of the new ways of working enabled by new technology.
3. Learn how to take a project from idea to implementation in an agile fashion.

Who is the Public Entrepreneur?

Public entrepreneurs are individuals within government who are open to using data, open to using collective intelligence, open to trying new things, and are open to innovation and agility while holding fast to the values of the public interest. For example, let's take a look at the work of Indian biophysicist Samir Brahmchari, former director general of the Council of Scientific & Industrial Research of the Government of India.

In India, thousands of people - primarily those living in poverty - die every day from tuberculosis. Yet there has been no new TB treatment developed in forty years, and a resistance to existing drugs is increasing. So, Samir created the [Open Source Drug Discovery](#) project, a crowdsourcing effort to "provide affordable healthcare to the developing world by providing a global platform where the best minds can collaborate & collectively endeavor to solve the complex problems associated with discovering novel therapies for neglected tropical diseases."

By recruiting students, academics, and scientists from around the world and across India, most of who were in remote villages, not elite universities, Samir created his own inexpensive army to collect, annotate and extract information from scientific literature on the TB pathogen.

With a 12-million-dollar grant, he coordinated the incremental contributions of 7500 participants from 130 countries, and began clinical trials for a new experimental drug at 20% of the cost of a traditional drug.

By working openly and in collaboration with a wider coalition of partners, leveraging the power of collective intelligence and big data, Samir is a perfect example of the new public entrepreneur who takes on difficult and seemingly intractable public problems, working in concert with others, to get things done.

Public entrepreneurs possess the mindset and the skillset to "translate" between the domains of government and technology, between the customs of bureaucrats and hackers and between the language of politicians and the public to mobilize resources inside and outside of government.

They are not content with slow and incremental approaches and strive to deliver real results in a shorter time. Thus, they experiment with new ways of working. They take risks but are certainly not reckless. They are conscious of their fiduciary obligations to due process and safeguarding taxpayer dollars and the public's trust.

What are some of the new tools for public entrepreneurship?
There are many new approaches to solving public problems that are transforming the performance of organizations in the public sector. We will focus on six of them in particular

Agile and Iterative Project Management

The first approach we'll discuss is agile and iterative project management. These are concepts that find roots in the world of software development, but we can take these same approaches apply them to the creation of non-digital products, services and policies as well.

Technology is creating the ability and incentive to work faster than before by working "smaller." Traditionally, government has utilized a "waterfall" project management approach -where we

spend years planning, designing, developing, testing and only later deploying a final project that we hope will be as perfect as possible, without any evidence that the project will actually work.

Indeed, government is infamous for its over-budget, delayed, or otherwise failed projects like the U.S. Air Force's Expeditionary Combat Support System. That agency spent $1.1 billion taxpayer dollars on a software project that was ultimately scrapped.

By contrast, agile is a flexible method for chopping up a project into smaller components that can be developed and tested in shorter time frames called sprints.

Under an agile or iterative management model, our goal isn't to reach perfection the first go-around - in fact we accept imperfection because we know we're going to learn from our shortcomings and become stronger as we adapt. This model is centered on a recurring process of designing, developing, testing, integrating, and repeating that process until you have an outcome that is truly effective.

The explicit willingness to iterate – and even fail – represents a dramatic sea change in culture that is underway in many places but, by no means, pervasive in government.

Policymakers are borrowing many of the same agile techniques learned from technology project management and applying the same techniques to developing services and policies.

Take the example of Denmark, which instead of undertaking the design of its new corporate registration system in the old way where the next stage cannot start until the previous one finishes, it developed the project with frequent testing of prototypes on real users. As a result, Denmark was able to launch an online company-registration system faster and achieve better results.

Sometimes known as "lean" as well as agile, this new way of working emphasizes a continuous process of building, testing and learning.

From 2004 to 2015, the duration of major US federal government IT projects went from an average of nine years to less than two years with concomitant cost savings because of this approach.

Open Innovation

As part of the broader trend toward more open governing enabled by new tools, we are seeing more governments work with those outside of government by applying open innovation and human-centered design to solving problems.

Henry Chesbrough, a professor at the Haas School of Business at the University of California, Berkeley, popularized the term "open innovation" to describe the distributed process of working across organizational boundaries to accelerate innovation.

As governments seek solutions to big and complex problems, open innovation (often backed by the incentive of a prize and known as a prize-backed challenge) has enabled the public sector to widen the pool of potential problem solvers beyond the "usual suspects" and get good ideas from more diverse sources faster using digital platforms.

The US government's open innovation platform, Challenge.gov, has hosted over 1000 challenges since 2010, and has engaged the public in tackling hard problems such as improving methods to find asteroids that could threaten the Earth, to removing sediment from reservoirs.

Public institutions are also turning to private platforms such as Innocentive or Kaggle for help attracting "solvers" with good ideas to solve hard problems. In 2019, the State of New Jersey launched the ENJINE Challenge to get good ideas from civil servants about improving government and saving taxpayer dollars.

Human Centered

Open innovation is just one way to solve problems with the public, tapping their intelligence and expertise. In addition to adopting open innovation, agencies are also practicing the methodologies of human-centered design to deliver services more effectively.

Human-centered design emphasizes answering the questions: "who are we creating the service for" and "what are their needs." Thus, instead of starting with the blueprint for a policy, service or website, practitioners of human-centered design investigate the context, behaviors, and needs of relevant members of the public in an effort to understand how they experience a challenge. Human-centered design practitioners also test and validate designed policies or services with users to ensure they're achieving their desired outcomes.

For example, when the New Jersey Department of Labor and Workforce Development systematically talked to, observed and interviewed job seekers in 2019, they learned that the unemployed were not suffering from a lack of tools or informational resources, but were drowning in offerings aimed at helping them get a job.

What they lacked was a clear pathway through the abundance of information and informed guidance about what to do and in what order.

Therefore, instead of simply revamping the government's website with better information no one would use more than before, the agency embarked on designing an entirely new system for virtual coaching to meet the needs of job seekers for more hands-on mentoring.

Experimental

Working in new ways like human-centered design and open innovation also demands new kinds of organizations able to use these methods. Many governments have created so-called policy labs, innovation labs, reality labs, public labs, living labs to hire people with new skills like data science, design, engineering and anthropology, who can practice these methods more easily than the rest of the bureaucracy.

UN Global Pulse is just such an experimental unit within the United Nations designed to provide agile data science expertise for tackling the Sustainable Development Goals.

For example, the Swedish national government set up Experio Lab to put designers to work specifically on healthcare challenges.

In Denmark, MindLab, hired designers who knew how to engage citizens in the design of services. For example, MindLab ran a project with 400 teachers to redesign the country's school curriculum.

Networked

Often government jobs are for life. The average tenure for workers in the federal government, for example, is 9.5 years, far longer than the private sector median of 3.8 years.

Furthermore, it can take forever to get a job, creating a higher incentive to keep it once accepted. David T. Ellwood, former dean of Harvard University's Kennedy School of Government, describes it as a "19th-century hiring system" in which job applications disappear into a "black hole" and the process, "can take nine months or a year."

At the state level, too, hiring can take a long time, often with little to no communication between the hiring agency and the applicant.

But today, some public agencies in other jurisdictions are shifting away from closed and insular hiring practices to more networked ways of working with other sectors where talent goes in and out using sabbaticals, exchanges and short-term stints in government for those in the private sector and in the private or academic sector for those in government.

The Italian government, for example, recruited the head of Amazon Europe, Diego Piacentini, to spend two years as Government Commissioner for the Digital Agenda beginning in 2016. The team he brought on to join him included people from the private sector with experience in computer science, product design and big data, who were asked to commit to a one year stint "on the inside."

While places as diverse as France and Korea are experimenting with inviting people into government, the UK is encouraging civil servants to leave government for a "career break." Scotland and Ireland, too, offer sabbaticals for public servants to go out and come back.

Data-Driven and Evidence-Based

While, on the one hand, the trend is toward riskier forms of "failing fast" in human-centric lab settings, those evangelizing for public sector reform are also embracing evidence-based decisionmaking to develop and evaluate interventions.

The central concept here is that we should seek out relevant data and use it to drive our decision-making processes - if we're not consulting the information available to us, we may not be achieving the best outcome possible

As we discussed extensively in the last module, data is a powerful ally. For the public entrepreneur, data science is an increasingly important capability for understanding problems and their root causes, and technology has vastly increased our ability to obtain and use data in our decision-making processes

In San Francisco, for example, auto collisions between bikes and pedestrians kill more than 30 people in the city each year. To tackle the problem, the Department of Public Health and the Department of Transportation developed TransBase to visualize incidents. They quickly discovered that just 12 percent of intersections resulted in 70% of major injuries, making it possible to use data-driven evidence to target and address the problem.

Taking a Project from Idea to Implementation

Now that we have gotten an overview of some of the new ways of working that are making government officials more innovative, we want to close out our discussion with an overview of how to apply these new ways of working.

Any public problem-solving process needs to begin with a strategy for propelling the problem-solving process forward along an agile trajectory.

There is an arc to the problem-solving process with a series of practical steps that can usefully serve as a scaffolding to advance any project.

Every project-management approach adopts such a process, which tracks steps involved in identifying a problem, developing solutions and implementing them.

Whether the prescribed pathway comes from management or design or policy, any project management approach entails a process of moving from idea to implementation.

Just as a private-sector entrepreneur needs to reflect on what she must do from beginning to end to launch a successful business, the public entrepreneur needs to comprehend the science of "deliverology" and possess an overview of what is involved in solving public problems even before she dives into specific methods and tools.

Starting with a loose and iterative roadmap for getting from idea to implementation – even if the decision is made to deviate from the path – is an essential reflective step.

That is why we end this module by pointing you to the newly updated Public Problem Solving Canvas published by the NYU Governance Lab in 2019.

The Canvas is a 20 question form, fillable online or off, for sketching out your own project pathway and previewing some of the tools you might use along the way. It asks such questions as:

What is the actionable problem I am trying to solve?
Whom can I consult with to validate my understanding of those problems?
What kind of a coalition can I build to take action?

We invite you to use the Canvas to create an initial action plan to move your own project from idea to implementation.