



The Government Summit Thought Leadership Series

In collaboration with **Deloitte.** 

# Service Delivery Trend Outlook

The potential future of government customer service delivery



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With an objective of informing public sector executives and service delivery managers about the major trends shaping citizen service in the future, this outlook report can be useful to offer innovative ideas for service operations improvement, and can also serve as a planning guide for any service transformation.

In many countries around the world, three forces have been shaping the citizen service sector and the manner in which governments are providing citizens with information access and service delivery. These forces are continuously rising citizen expectations, increasing fiscal pressures, and technologies that are enabling new ways of information management and communication.

Leading governments have been assessing these forces and have commenced the transition to a "new era" of service delivery efficiency and effectiveness, with the planning and piloting of creative approaches to connect with and serve customers.

This outlook report summarizes a variety of leading global practices and lessons learned for governments aiming to enhance customer service. It is informed by a variety of sources including interviews with citizen service subject matter experts, a review of literature and analyst reports from multiple global markets, and research into specific examples of public sector service delivery reform.

For public sector managers who are leading a transition to a new era of customer-centric service delivery, this report provides not only a window into the future to help manage larger scale service transformations, but also tips and tactics to improve present day service operations.

The first of the forces, **rising citizen expectations** for service, have in many ways stemmed from consumer interactions with private sector providers such as banks, travel and lodging providers, and entertainment operators. They are aggressively competing to develop more customercentric ways of doing business and in doing so, are demonstrating to citizens what new types of service are possible. Demands such as automated on-line service transactions, lower call centre wait

times, and customized treatment are all being met. As citizens interact with government, these private sector experiences are leading to higher expectations for public sector service delivery.

The second force, **government fiscal constraints** are a key challenge – and opportunity – for public sector organizations aiming to enhance customer service innovation. As governments cut back on spending to reduce debt levels, public sector organizations find themselves trying to do more with less. This "new normal" operating environment is creating an agenda to radically re-think the way public services are delivered.

The third force, **advances in information technology** can help improve the quality of customer interactions and their ease of access, all while lowering costs. The "Internet of Things" - embedded internet connectivity in everyday devices - has become a primary focus for technology companies and is forecasted to contribute \$19 trillion to the economy by the year 2020 (Forbes, 2014). The extent to which technology is becoming part of everyday life brings new opportunities and challenges for service delivery. Leading governments will capitalize on these opportunities while being prepared to manage potential risks.

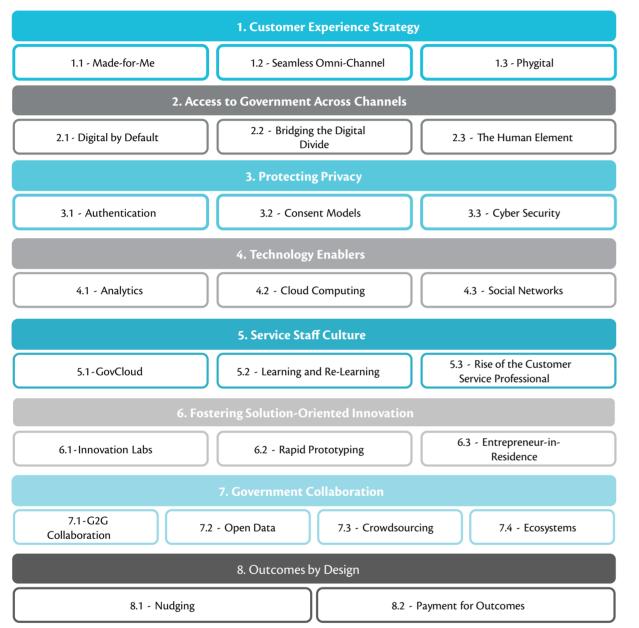
This changing environment is redefining the way customer services in the public sector are designed and delivered: this outlook report has identified eight key drivers and twenty four trends that are shaping the future of public sector service delivery.

The timeframe for these trends to become mainstream varies. Some already exist in a number of markets as a core focus for governments. Other trends have a much longer-term timeframe. They are based on early successes by pioneering organizations in the public and private sectors and their impact is being monitored by leading governments looking to engage with the future.

While the twenty-four trends are at various stages of adoption, they all have direct applicability to a wide variety of public services across government departments and channels of service delivery.







Source: Deloitte Analysis

While governments around the world are all at different degrees of capability and investment relative to service delivery, a number of common implications to these eight drivers and 24 trends should be considered:

- 1. Know your customer different citizen segments will have varying demands for service and willingness to help governments drive efficiency
- **2. Build Digital channel capabilities** start to define your Digital Roadmap where the most impactful investments will help lower operational costs and drive improved service experiences
- 3. Privacy is non-negotiable review processes to ensure that customer privacy laws and guidelines are adhered to, and that effective recovery processes are in place if needed
- 4. Understand your technology opportunities - you do not have to implement all the latest technology innovations, but be fully aware of the options available to your organization
- **5. Invest in people** they are critical to drive change. Ensure that staff have strong learning and development programs to help them improve customer service
- **6.** Commit to service Innovation launch a formal and proactive service innovation program that continuously reviews and enhances the current way of "doing things"
- 7. Open your aperture to a broader set of partners, stakeholders and networks - this includes citizens, not-for-profits and private sector organizations that can bring fresh perspectives on service delivery solutions as well as additional resources and skillsets

8. Ensure that service solutions have an **outcome focus** – build very clear KPI's and specific measures to tie service initiatives to actual outcomes that matter for customers

Public sector leaders can use this Outlook Report as a reference guide to benchmark their customer service priorities and initiatives to global trends. The eight drivers and twenty-four trends provide a perspective on where public sector service delivery is headed and what needs to be done to keep pace with rising citizen expectations.

This Service Delivery Trend Outlook Report covers more than thirty examples of leading practices observed across governments in more than a dozen countries. These examples describe approaches in a wide variety of public services including healthcare, education, and social services. They range from customizing service delivery for specific customer needs to changing the entire workforce model.

Depending on the needs of a specific organization, certain trends will likely be more relevant than others. Identifying these trends and assessing their potential impact, investing in developing selected capabilities, and piloting different approaches will position any organization well to enhance service impact across channels.

#### **Outlook Report Objectives and Methodology**

Customer service has increasingly become a focus for public sector managers looking to improve the manner in which government delivers services. A customer-centric approach, one that aims to provide the best possible customer experience using the most efficient delivery model, has come to define "leading service delivery" around the world.

The purpose of this Service Delivery Trend Outlook Report is to provide an overview of the key drivers and trends that will have an important role in the future of customer service. Some are already on the radar of leading governments, who are finding innovative ways of applying them. Others likely won't be adopted on a global scale in the near future, but have the potential to one day disrupt existing service delivery models.

This service outlook is informed by a variety of sources including interviews with subject matter experts, a review of literature, analyst reports, and publicly available information on public service delivery reform. For public sector managers who are leading a transition to a new era of customer-centric service delivery, this report provides not only a window into the future, but also tips and tactics for both small scale and large scale transformation.

This report has eight core sections, one for each of the drivers of customer service delivery.

Each section begins by providing the context in which the drivers have emerged, based on a variety of environmental factors. An overview of each of the drivers and associated trends is then provided, which is supported by real-world examples from both the public and private sector. The implications for each driver are the "calls to action" for public sector managers leading change.

#### **Three Forces of customer service change**

Public sector organizations are operating in an environment characterized by three major forces driving change; continuously rising citizen expectations, increasing fiscal pressures, and technologies that are enabling new ways of delivering public services.

Greater citizen expectations have come as a result of private sector organizations competing with one another to provide a fully integrated endto-end customer experience. The shift in citizen attitudes means that the public sector, like the private sector, must not only ensure easy access to services, but also focus on developing a more customer-centric approach.

Fiscal constraints are a key challenge – and opportunity - for public sector organizations aiming to be at the forefront of customer service innovation. The financial crisis of the late 2000's caused many countries to aggressively borrow to stimulate their economies, resulting in global public debt levels rising to more than \$55 trillion (The Economist, 2015). As governments cut back on spending to reduce debt levels, public sector organizations find themselves trying to do more with less. This "new normal" operating environment is creating an agenda to radically rethink the way services are delivered.

Advances in Information Technology can help improve the quality of customer interactions and their ease of access, all while lowering costs. The "Internet of Things" – embedded internet connectivity in everyday devices - has become a primary focus for technology companies and is forecasted to contribute \$19 trillion to the economy by the year 2020 (Forbes, 2014). The accelerated pace at which technology is becoming a part of everyday life means that new opportunities and challenges are emerging. Leading organizations will capitalize on these opportunities while being prepared to manage potential risks.

#### **Service Delivery Drivers and Trends**

The evolving environment is redefining the way customer services are designed and delivered. This outlook report identifies eight key drivers that are shaping the future of public sector service delivery. These include:



Source: Deloitte Analysis

Based on research conducted, the eight drivers above appear to be leading to twenty-four trends, many of which have become a focus for leading governments.

For example, best-in-class customer experience strategy now involves a "made-for-me" model that customizes the experience based on individual preferences. Technology enablers such as analytics can turn large amounts of digital data into meaningful insights that bring value-added solutions. Governments are increasingly collaborating with multiple external stakeholders, transitioning their role from a solution provider to a facilitator and recruiter.

The eight drivers and twenty-four trends will have direct application across a wide variety of public services and are at varying stages of global adoption. Privacy protection through strong cyber security measures has been emphasized even before the mainstream adoption of mobile devices, but the risks continue to grow exponentially as the power of digital data increases. Organizations are just beginning to understand

Figure 2; Overview of Key Service Outlook Drivers

the power of new on-demand digital training resources as the global economy faces a skills shortage. Governments are attempting to provide more convenient access to services by focusing on digital channels while maintaining support for those less able to engage with digital.

#### Who is Innovating Service relative to these trends

This Outlook Report includes more than thirty examples of leading practices from governments in more than a dozen countries. A wide variety of policy domains are covered including healthcare, education, social services and citizen services.

The typical implementation cycle appears to follow a common path: many of the leading practices have been piloted in one jurisdiction or industry and as the value has become apparent, other governments have adapted the practice to suit their local context.

Several examples include;

- The UK Government is a leader in leveraging behavioural insights for public policy and developing results-based contracts that seek to incentivize providers to focus on outcomes.
- Singapore is actively collaborating with business to develop innovative approaches. That take advantage of the latest technology such as cloud, wearables, and mobile.
- Government agencies in the United States are pursuing crowdsourcing and the development of innovation labs to reform processes and generate customer-driven insights.
- And around the world, open data portals and the adoption of digital channels for customer services have attracted near-universal interest from governments.



#### A common theme for many leading governments is a commitment to service delivery leadership and a willingness to engage with the future.

Governments that are taking a "wait and see" approach will still learn from the successes and failures of the early adopters. Given the common operating context of rising citizen expectations, fiscal constraints and rapidly evolving technology, the practices being implemented by the leading governments will be directly applicable to other governments. It is just a question of timing and scale of adoption.

#### Figure 3: Apparent Adoption of the Service Trends

Drivers	Trends	Exists in many leading countries	Unfolding in select innovative countries	Long-term trend with early evidence emerging
1. Customer Experience Strategy	1.1 - Made-for-me		$\checkmark$	
	1.2 - Seamless Omni-channel		$\checkmark$	
	1.3 - Phygital			$\checkmark$
	2.1 - Digital by Default		$\checkmark$	
2. Government Accessibility Across Channels	2.2 - Bridging the Digital Divide		$\checkmark$	
	2.3 - The Human Element	$\checkmark$		
	3.1 - Authentication	$\checkmark$		
3. Privacy Protection	3.2 - Consent Models		✓	
	3.3 - Cyber Security	$\checkmark$		
4. Technology Enablers	4.1 - Analytics	$\checkmark$		
	4.2 - Cloud Computing		✓	
	4.3 - Social Networking	$\checkmark$		
5. Service Staff Culture	5.1 - GovCloud			✓
	5.2 - Learning and Re learning		✓	
	5.3 - Rise of the Customer Service Profession			~
6. Innovation	6.1 - Innovation Labs		✓	
	6.2 - Rapid Prototyping		✓	
	6.3 - Entrepreneurs-in-Residence			✓
7. Government Collaboration	7.1 - G2G Collaboration		✓	
	7.2 - Open Data	$\checkmark$		
	7.3 - Crowdsourcing		$\checkmark$	
	7.4 - Ecosystems			✓
8. Outcomes by Design	8.1 - Nudging	$\checkmark$		
	8.2 - Payments for Outcomes	$\checkmark$		

#### Source: Deloitte Analysis

The following sections of this report describe each of the 8 drivers and 24 trends. For each trend, the report describes the major driver, some examples of where the trend is occurring, and also the implications for government.

### **Customer Experience Strategy: Meet** Generation C...The Connected Customer



"In the world of Internet Customer Service, it's important to remember your competitor is only one mouse click away."

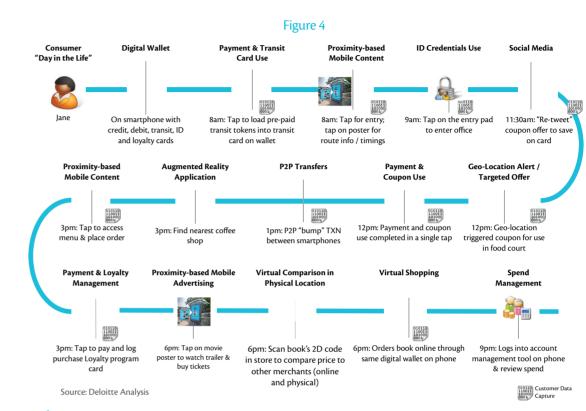
Doug Warner Former Chairman of JP Morgan

#### Why this driver is emerging

A day in the life of a customer is very different today than it was even a couple of years ago. The increasing popularity of customer digital devices like smartphones combined with the growth in the capability of many organizations to tap in to the power of these devices is radically changing the quality and nature of interactions between customers and service delivery organizations. As part of this shift, leading organizations are moving away from a focus on individual touchpoints in favour of a full spectrum of customer journeys that are highly tailored and aim to maximize the level of integration between the physical and digital world.

Vehicle licensing agencies are now proactively contacting citizens for driver's license renewals, financial institutions are alerting clients to lowbalances, and pharmacies are letting patients know when prescriptions need to be renewed. The ability to "push" notifications through various channels (e.g. text, email, smartphone application) not only creates a more connected experience for the customer, it also enhances outcomes. A recent survey of mobile banking users found that 81 per cent of those who received a text message or e-mail low-balance alert acted upon it, with 37 per cent responding by reducing their spending (Board of Governors of the Federal Reserve System, 2014). Another large-scale survey found that for organizations that "pushed" driver's license renewal notices, these citizens' customer satisfaction scores were two times higher than those that did not (McKinsey & Company, 2014).

The internet of things is enabling wearable micro technologies that dramatically reduce the cost of interfacing between the analogue and digital worlds. The result will be a much more interactive and high quality experience for services. The figure below provides a snapshot of a day in the life of a connected customer



#### **Trends**

#### Made-for-me: A marketplace of products and services tailored for individual needs

Today's customer-facing technologies are providing new digital experiences for citizens and raising expectations for public services. Service delivery approaches designed around the mass production model are being replaced by a "made-for-me" model that is based on individual needs (Forrester, 2011).

Governments are now providing citizens a range of options and allowing customers to select their preferences. Within the mobile channel, some citizens may want reminders (e.g. driver's license renewal, tax filing dates, etc.) stored on an application while others would prefer to receive a text message. By taking a customized approach, governments can generate more focused citizen data and refine initiatives more effectively. For example, sending a reminder text message 10 days before a deadline may generate more responses than a 30 day period.

US State Health Innovation Plans provide an example of this emerging trend. It is estimated that while 86 per cent of US customers believe it is important to have control over their health information, only 16 per cent believe they have complete control (Accenture, 2014). Citizen attitudes have evolved over the past decade and rather than being passive recipients of healthcare services, many users want to actively manage their well-being. In response, a number of US states have launched platforms to integrate and scale citizen-centered health and human services in a cost-effective manner. These digital platforms enable targeted healthcare literacy, self-management, and remote patient monitoring. For example, the State of Delaware is launching a program to develop mobile apps that will allow people to access their personal electronic health records as well as obtain information on value-based health choices and access to care delivery options

The State of Washington is leveraging claims data to identify costs, risks and outcomes for patients receiving care across its health and human services programs. Maryland is bringing in human services navigators to act as intermediaries between primary care coordinators and social services programs. These health service initiatives are leading the way for a new medical care service delivery model that will improve health. social. and financial outcomes.

Public sector organizations are anticipating customer needs and adapting delivery platforms and service options accordingly. Keeping up to date with citizen needs and generating ongoing segmented user feedback are key success factors. Organizations are also striving for the right balance between a customized and generic approach. While personalization has many benefits for the customer experience, an overemphasis can lead to costly service delivery and unsustainable programs. A system that caters to individual needs while remaining simple and easy to use will achieve optimal results (Forrester, 2011).

#### **SMS Texting for Improved Educational Outcomes**

SMS texting has been around well before smartphones were created but few organizations had made it a part of their core customer interaction. Educational institutions have been the focus of a growing body of SMS related research. Education decisions can have a long-term effect on a person's life and yet information overload often leads to poor decision making or inaction. A recent study highlights the large number of college-intending students in their senior year of high school who do not enroll in post-secondary education following graduation (GovInnovator, 2015). There are a range of ways that SMS can be an effective customer service tool:

- 1. Personalized SMS can be easily tailored to provide continuous information regarding a specific customer's needs and wants (e.g. timelines and details for their application process)
- 2. Simplified A well-framed SMS can simplify large amounts of complex details in 160 characters or less
- 3. Focused Attention SMS typically causes a recipient to focus their attention on the content of the message, even if it is just for a few seconds
- 4. Instant Reminder Well-timed reminders regarding deadlines can reduce the risk of missing deadlines (e.g. submitting an application on time)
- 5. Convenient Text messages can have links for application forms embedded in them which can immediately be completed online using a smartphone
- 6. Cost-Effective Automated online SMS platforms that send high volumes of texts are much cheaper than other communication channels – often costing 1 cent per text
- 7. Anonymous In sensitive situations that can create stigma for the customer (e.g. at-risk students, social service benefits), some customers may prefer responding to an anonymous SMS than a phone call or in-person contact

SMS is an effective strategy for achieving better customer results. In a recent study on post-secondary enrollment of college-intending seniors, researchers found that students who received customized text messages were up to seven per cent more likely to enroll in college than their peers (GovInnovator, 2015). In this pilot, the best results came in parts of the country where there was limited college planning support. Education is just one of many public sector areas that SMS has the potential to bring better outcomes. Prescription medication reminders, major transit delay updates, and citizen ID card expiry notices are other promising areas where SMS can be used to improve everyday life.

#### Seamless Omni-Channel: True continuity of user experience

The list of outlets that service providers use to interact with customers is growing rapidly. Smartphones, tablets, and interactive kiosks are changing the way people engage with the world. Today's customer wants not only a range of channel options, but also to be able to move between them seamlessly. A welfare services user might make a claim online, check its status using a smartphone, sign the paperwork in person, and receive payments via traditional mail or direct bank deposits. The service priority is to make the end to end customer pathway feel like a smooth process instead of a disjointed one.

The retail sector has been highly influenced by omni-channel pressures and it has responded by making a significant investment in improving the customer experience. A recent survey found that 56 per cent of respondents felt it is important to be able to buy online and pick up in store, and 49 per cent felt it is important to be able to buy in store and ship to the customer (Forrester Consulting, 2014).

As customers have become accustomed to advances in seamless channel integration, the expectation for other sectors including government has followed suit. For example, many customers expect a high degree of consistency between information presented and available on all channels (CFI Group, 2014). A welfare services user who has invested the time online researching a government policy will likely have little patience for an in-person service representative who is not completely familiar with their specific type of claim.

User-friendly systems are being established for customers to connect between any two channels at any given time. For example, an authentication system for the online welfare claims application may involve a verification code to be sent to the user's tablet. When arriving at the in-person center, she may scan a barcode from her smartphone on a reader device to automatically print pre-populated paperwork on the service agent's printer. Leading governments will ensure that customer needs are regularly reviewed and integrated in to all delivery channels to enhance customer experience.

#### Phygital: Integrating the digital and physical customer experience

The emergence of mobile and micro innovations such as wearable technology, real-time speech translation, and mobile wallets is bridging the gap between the digital and physical world and resulting in a more user-friendly and interactive customer experience.

The market for wearable technology is growing at an annual compounded rate of more than 78 per cent (International Data Corporation, 2014). By 2016, worldwide spending on wearable technology will reach \$1.4 billion. In the customer business industry, wearable technology in the form of watches and glasses, powered with smart chips, will allow users to browse the internet, view pictures, and navigate and experience augmented reality. Its impact may be even more important in public sector domains involving health, defence, education, and over the counter services.

#### Healthcare

Recognizing the power of wearables, the Government of Singapore is investing in this as a key solution for improving citizen outcomes. One in nine Singaporeans aged 18 to 69 suffer from diabetes. To prevent long-term health complications such as heart disease or kidney failure, diabetics undertake daily finger-prick blood tests. Singapore's Institute of Microelectronics and local biotechnology firm Singapore Biomicro Pte Ltd are collaborating to eliminate this routine by developing an implantable blood glucose monitoring device (Agency for Science, Technology and Research, 2014). Once surgically implanted into the patient, the device will automatically monitor and transmit readings wirelessly to an external reader. If successful, the initiative will dramatically improve the lives of diabetics and have an important impact on healthcare service around the world.

Vivametrica, a start-up based in Calgary, Canada, has developed a Functional Activity Assessment tool that begins by generating health-related data through wearable devices such as fitness trackers (Vivametrica). A complex algorithm then analyzes trends against population data to forecast the probability a user will experience health issues such as diabetes or heart disease. The individual can take these insights to their medical professional to ensure they take early action and reduce the likelihood of future health problems (Forrester, 2014). Vivametrica also creates anonymized reports for organizations to assess overall wellness trends in the workplace.

#### Defence

In 2013, worldwide military spending was over \$1.7 trillion (Stockholm International Peace Research Institute, 2014). Wearables can help defense forces monitor the location, health, and emotional state of military units operating in dangerous conditions. This data will improve decision making and has the potential to save lives.

Thiess - an Australian company that provides integrated engineering services - sends its workers into the Australian outback, home to some of the world's deadliest animals and harshest climates. To improve tracking of workers safety and efficiency, the company has contracted several safety providers to roll out a set of new wearable devices. The devices will allow Thiess to measure important metrics such as blood oxygenation, body temperature, and movement to make better real-time decisions on employee risk levels (Forrester, 2014).

#### Education

Wearables in education are only beginning to gain momentum as educators become aware of their transformative potential. In just a few years, they will become a primary tool for teachers to create a more immersive and safe learning experience. Potential examples include smart jewelry that will warn chemistry students when dangerous fumes are detected, smart glasses that can turn a history lesson into a 3D learning experience, or smart gloves that enhance instruction for handling of trades' equipment.

#### **Over-the-Counter Services**

Service agents at traditional over-the-counter services can use wearable devices to better interact with customers. These devices can make customer-facing employees feel empowered to provide better service to customers while making processes more efficient.

In London's Heathrow Airport, Virgin Atlantic ran a pilot project that involved providing staff in its upper class lounge with Google Glass – a new form of smart eyewear technology that features head-mounted displays (Airport Business, 2014). When customers entered the lounge, a Virgin representative would greet them by name and begin the check-in process using the technology. The representatives were also able use the glasses to provide instant updates on flight and destination related information. Staff members reported that being able to access information while simultaneously looking at the customer improved service quality (Forrester, 2014). Customers also reacted to the technology a lot better than Virgin expected. From an efficiency standpoint, the initiative reduced paperwork and increased overall productivity (Airport Business, 2014).



While Virgin's experiment with Google Glass took place in an airport lounge environment, it is directly relevant to public sector over-thecounter services. In the future, wearables could allow government counter services agents to know who is walking in, why they are there, and what needs to be done (Forrester, 2014). With less time spent gathering and inputting data it gives the service agent the opportunity to focus on the customer interaction. The emphasis changes from exchanging information efficiently to providing an exceptional experience.

Another way that digital technologies are being leveraged to improve the customer experience is through real-time speech translation. Real-time speech translations on mobile devices eliminate cross-cultural communication barriers by immediately translating words from one language to another. The technology allows people from all over the world to communicate with each other without having to learn a new language. It is expected to improve the "one-to-many" events organizations host such as webinars, training sessions, and conferences.

Digital wallets allow users to make payments directly using their mobile phones. Instead of taking out a wallet when it is time to pay, a customer opens up an app on their digital device,

### Access: Government as a food truck

enters a pin, and selects the account that will be withdrawn from. They then tap their device to a payment terminal which transmits the required data (CHASE Paymentech).

The arrival of phygital is just beginning and it is expected to grow rapidly as organizations experiment with micro-technologies. Rapid prototyping allows for faster development and testing of these technologies, which will lead to an influx of new products and services. Trial runs will give technology companies an opportunity to refine products, developers will create more applications, and end-users will increasingly have higher quality experiences. The perception of phygital will move from ideal to practical. Costs will go down, more organizations will make the investment, and it will eventually become a part of our everyday customer service reality.

#### Implications

Governments should consider:

- Personalizing the approach to service delivery by offering customers multiple channels (e.g. mobile, web, face-to-face, etc.) and allowing them to tailor their experience based on individual preferences
- Ensuring all service delivery channels are integrated and customers can seamlessly transition between them at any point in their customer journey
- Examining the potential impact of wearable technology on services (e.g. smart glasses on education, smart gloves on defense force safety) and investing in small-scale pilots to better understand how these devices can add value





"The patient will see you now"

Eric Topol Author <sup>2</sup>

#### Why this driver is emerging

Citizens have a number of basic human and property rights as well as obligations to government enshrined in legal and institutional frameworks. Recognizing that barriers to government services can take many forms including distance, inadequate facilities for users requiring special accommodation, language, opening times, and complexity - the concept of citizen rights has been extended to many public services through the use of statements of citizens' rights. For instance, there is a formal definition or charter for patients' rights in 26 OECD countries and taxpayers' rights are formally defined in tax law or other statutes in 30 OECD countries (OECD, 2014).

As governments are increasingly prioritizing easy access to citizen services, this helps ensures that the service is delivered in the simplest, most user-friendly and efficient way for the citizen. Today, access to government information and transactions is provided through a range of touchpoints available to citizens and businesses. This includes integrated face-face counter services and mobile access teams, telephone, and digital channels designed for both PC and mobile enabled devices. Factors influencing the selection of the channel include the service volume, the level of complexity involved, sensitivity of information being exchanged, and the capability of customers to access the channel.

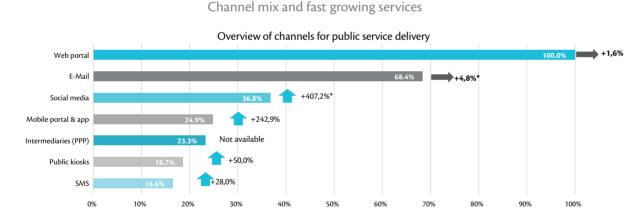
There has been a significant shift to lower cost digital channels over the last ten years and this trend is expected to continue. The cost to serve varies across jurisdictions and is based on a variety of factors including wage rates, however some recent Canadian estimates for citizens services found approximate costs of \$25 for an in-person

transaction, \$10 for a live operator phone transaction, \$5 for an automated phone transaction, and as low as 25 cents for an internet transaction.

Costs to serve by channel and interaction type across the international public service tell a similar story, and illustrate the value in moving client interactions from higher cost to serve channels (e.g. in-person) to online services.

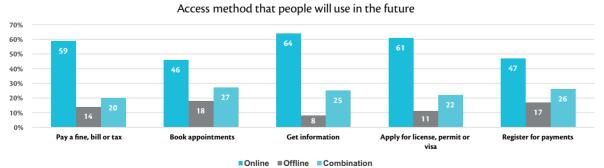


Deloitte - Study of Increasing Self-Service in the Public Sector Report for the Institute of Citizen-Centred Service (ICCS), Feb 2013 Deloitte, Choosing Channels: Optimising the Channel Mix in the UK Public Sector (2007) Northern Ireland Civil Service, Channel Strategy (2009), Confidential Deloitte Project for a US State (2006)



Channels for service delivery





Making digital default - Understanding citizen attitudes, Deloitte 2014

A shift to increased self-service not only lowers service costs but can simultaneously improve service quality and citizen satisfaction. Digitized public services are those that are conceptualized and designed harnessing all of the latest digital technology (Johal & Galley, 2014). This includes mobile internet, social media, and cloud technology. As the UK Cabinet Minister Francis Maude points out, "the public increasingly expects to access services quickly and conveniently, at times and in ways that suit them. We will not leave anyone behind but we will use digital technology to drive better services and lower costs" (Cabinet Office, 2013).

The trends outlined within the driver of access to government include a move towards digital by default, initiatives designed to bridge the increasingly important digital divide and the ongoing importance of human face-face contact.

#### **Trends**

#### **Digital by Default**

Today, there are 1.5 billion smartphones being used globally (United Nations, 2014). The mass adoption of digital devices has shifted the focus of government service strategies to digital outlets. When designed well, government digitalization has the potential to improve customer experience while making processes more efficient. Userfriendly platforms that are conveniently accessible and allow for quick navigation increase citizen satisfaction. The latest technology allows governments to implement and scale these platforms in a cost-efficient manner and the global economic value of the public sector's transition to the digital world is estimated to be up to \$1 trillion annually (McKinsey & Company, 2014).

Given the transformative nature of digital, leading public sector organizations are looking to make

it the default option among citizens. This means e-government is so well-organized and convenient that it becomes the preferential outlet for service delivery. In many countries, the majority of citizens are open to online government services and have a desire to do more online. A Deloitte survey of over 5,000 UK citizens found that 88 per cent are open to accessing government services online (Deloitte UK, 2014). Simplicity, security, speed, and costefficiency were all among the most valued aspects of digital service delivery. Only 3 per cent of survey participants said they preferred exclusively offline access. Though these numbers will vary across global regions, the underlying trend remains consistent. A new generation of tech-savvy citizens are encouraging the move towards digital service delivery. Governments are facilitating this transition by gaining a better understanding of the needs of citizens and developing their online platforms accordingly.

The UK government provides more than 650 transactional services to its citizens through a combination of digital and non-digital channels. By 2012, despite 77 per cent of the UK population using the internet daily, less than 50 per cent had conducted a digital government transaction and less than 10 per cent had attempted to access government information online. A year later, the UK launched a "Digital by Default" strategy with the goal of providing digital services which would be so effective that they would become the primary outlet for citizens able to use them, while not excluding those who are less "tech savvy". The initiative focused on digitalizing all offline channels that could be delivered online and redesigning existing digital platforms to meet a new set of service standards. Publishing activities of all the 24 central government departments would also accelerate the move to an online platform called GOV.UK intended to be a single point of access. Benefits of "Digital by Default" include more

efficient and convenient use of services as well as long-term cost savings. User feedback and transactional speed has improved while annual cost savings are expected to be approximately £1.7 - 1.8 billion (Cabinet Office, 2013).

#### **Bridging the Digital Divide**

As digital becomes the primary outlet for receiving services, a segment of the population can be excluded. These digitally-excluded citizens have little to no experience with digital devices, making it hard to navigate a government web platform. Governments are responding by improving the capacity for digitally-excluded citizens to connect online. They are identifying the barriers for digital delivery and then tailoring solutions to specific problems. Whether that involves educating inexperienced community members or providing a laptop to each child, the pressure to bridge the digital divide is growing as technology becomes the new outlet for government service delivery. A truly digital government strategy can only move as fast as all citizens are able to adopt it.

In 2012, the UK government made a significant investment in digitalizing all possible transactional components of government service delivery and encouraging all citizens to take advantage. However, it was estimated that 8.2 million adults didn't have the online skills necessary to use digital channels. About half of these adults were believed to be among the UK's most poor residents. To overcome this, the government formed an "assisted digital" strategy with Race Online being the first of several initiatives launched. The goal of Race Online was to inspire, encourage and support all residents to get online as fast as possible. The initiative was soon renamed Go ON UK and the goal was broadened from simply getting people online to ensuring every individual, organization, and community can fully enjoy the benefits of the internet (Cabinet Office, 2012). As part of

Go ON UK, the government formed cross-sector partnerships with Age UK, Big Lottery Fund, E.ON, Post Office, Talk Talk, Lloyds Banking Group, and the BBC. These partnerships have contributed to new ways of educating citizens, such as digitalskills. com; a web platform that will launch in spring 2015 where 5,000 "digital champions" will share their online skills with anyone who wants to learn.

One Laptop per Child is a project being delivered by several not-for-profit organizations and major technology companies which aims to develop and distribute educational devices for use in developing countries (Fullan, Watson, & Anderson, 2013). In 2007, Uruguay became the first country to make a significant investment by distributing laptops to all primary school students and teachers. While schools in major metropolitan areas could benefit immediately from this initiative, rural schools with disadvantaged students were located in areas without the digital infrastructure to support internet connectivity. In less than two years, the Uruguayan government distributed the laptops to all primary schools and provided the human resources necessary to support the transition. Old infrastructure was replaced with fibre optic technologies and alternatives such as solar panels were provided for small isolated schools. The educational content available to these students includes a robotics program, remote English lessons, and several basic programming applications that teach coding. The increase in the number of tech-savvy workers entering the workforce over the next couple decades has the potential to accelerate the growth rate of Uruguay's expanding technology sector.

#### The Human Element

Lower costs, easier access, and a better customer experience are encouraging governments to adopt digital channels. The emergence of sophisticated digital platforms has automated major segments of virtually every industry and in the process reduced the reliance on traditional forms of labour. While digital has now become the default in many places, the in-person channel remains highly relevant. Many government transactions have not been automated and digitized because they are more complex, have longer processes, and are more detailed than simple e-commerce transactions in the retail world. Even among citizens that are well-versed in technology there is a proportion of the population that simply wants to receive their services through traditional "brick and mortar" outlets. Yet the transition to digital will have implications for how in-person government services are delivered.

Some of the most significant changes to the inperson channel will come in the form of integrated service locations and a hybrid service delivery model. As the majority of citizens move online, it becomes less necessary for government agencies to have separate in-person locations. A "one stop shop" approach provides the opportunity to lower costs while eliminating the hassle of having to go from one building to another. Citizens will be able to renew their driver's license, apply for a health card, file a legal claim, or receive social assistance support all in the same location.

A hybrid service delivery model incorporates aspects of both traditional in-person channels and e-government. For example, digital self-service kiosks exist alongside government employees who are available to assist those unfamiliar with how the kiosks work. A hybrid approach allows governments to satisfy the needs of citizens wanting in-person service while still taking advantage of the benefits of digital platforms. It also offers citizens who are less confident about e-government the chance to experience it in a supportive environment, increasing adoption by encouraging a "digital by default" attitude.

The Northwest Territories in Canada has a population of approximately 43,000 residents who live in a region that covers over a million square kilometers. While about half of the population resides in the capital of Yellowknife, many people are located in remote areas. A priority for the territorial government is ensuring these individuals and families have access to the same quality of public services as those living in the capital city. In late 2010, the government piloted a new initiative called Single Window Service Centre (Northwest Territories, 2012). The purpose of the Service Centres is to help citizens living in remote regions to access and navigate government programs online. Service Centres were established in eight rural communities and staffed by a locally hired Government Service Officer. The officer assists residents with filling out forms and applications online through the use of a public computer. Almost immediately after it launched, the idea generated high levels of citizen engagement, especially among the elderly population. Faster response times, the ability to provide services in the local language, and having a familiar face in the community have all contributed to its success. Since launch, the number of Service Centres has almost doubled (Northwest Territories, 2014).

#### Implications

- Governments should consider:
  - Developing cost-efficient digital service platforms that provide such an enriching customer experience that they are viewed as the primary interaction channel
  - Ensuring customers who have no access to internet connectivity or little experience with digital devices have the necessary support to access public services through these channels
  - Maintaining a strong focus on the in-person delivery channel and incorporating customerfacing technology (e.g. interactive kiosks, smart glasses, etc.) into one-stop service centres

## **Privacy: Protecting Information in an** open world

"For computing to achieve its full potential - and to enrich the daily lives of people and businesses everywhere – it must first be made as secure and reliable as it can be."

**Bill Gates** Co-founder of Microsoft Corporation<sup>3</sup>

#### Why this driver is emerging

Online data security and privacy protection have become a key priority for governments and companies that share data across organizational units and process a high volume of customerfacing transactions. Despite the increased security efforts, a recent study found that 97 per cent of the 1,216 public and private sector organizations reviewed had been breached (FireEye and Mandiant, 2014). Higher education, federal government, state government, and local government were among the four industries that had the highest number of malware callbacks from within their network infrastructures.

A secure online account or portfolio for citizens typically includes profile information, transaction history and personalized services based on individual needs and preferences, as well as the capability to conduct secure transactions. Secure account management provides citizens and businesses with assurance that their personal and transactional information will be maintained in confidentiality. It enables citizens and businesses to capture a record of their transactions and information requests across departments and programs. However, adoption of secure account technology is often limited by privacy policies in many governments today, which have led to limitations in the ability of departments and programs to share data across government.

#### Trends

#### Authentication: Secure and efficient identify confirmation

When sharing personal information electronically, identify theft is a top concern. In order to maintain the trust of citizens, governments need to maintain effective and secure processes for identify confirmation. Digital technologies have

pushed aside paper-based systems by enabling new authentication methods that include electronic signatures, web ID, fingerprint ID, citizen ID cards, heartbeat rhythm identification, and voice authentication. These forms of identify confirmation bring greater opportunities for convenience and ease of access but also pose new security risks.

Instead of having to go into a government office to fill a long list of forms, a citizen can speed through the process in just a few minutes on their home laptop. Though almost all forms of digital authentication improve customer experience, knowing how and when to use them can a challenge. For example, when it comes to low risk, low occurrence transactions, some organizations have found asking individuals to create a pin is ineffective. The pin will often be forgotten, leading to frustration and duplicative process. Instead, requiring them to enter a combination of personal information such as birthday, postal code, and address, is much more likely to make the process seamless (Forrester, 2014). In addition to time saved, digital technologies allow authentication methods to be customized depending on user needs. When forgetting a password, some users may prefer to answer a set of security questions while others want a verification code sent to their mobile device. As citizen engagement increases, the cost per transaction for government services will decrease. These savings can be reinvested to improve technology platforms that further enhance the user experience.

Some of the more advanced organizations are leveraging wearable technology for authentication. Royal Bank of Canada has introduced a pilot project with Nymi wristbands that monitor heart beat rhythms. Users are able to authenticate themselves through the wristband when charging purchases to their credit or debit cards (Friend,

2014). British bank Barclays has a similar initiative with their bPay wristbands that allow users to pay for items that cost up to £20 at 400,000 point-ofsale devices throughout the UK (Forrester, 2014). Their clients can get on public transportation, pay for coffee, and in the case of Southampton football club fans, enter the stadium with a quick swipe.

The risks associated with digital authentication are consistent with the major security threats in today's information age. Hackers who are able to bypass government authentication systems will have access to more data and be able to cause more damage than ever before. The lack of separation between the digital and physical world can make it more difficult to detect identity theft. For this reason, many countries still rely on paperbased and in-person methods for highly sensitive transactions. This will likely continue in the near future as cyber security has not reached a point where risks are completely eliminated.

A little over two decades ago, Estonia had just gained independence from the former Soviet Union and had minimal infrastructure to support business activity and growth. The country has since become a highly developed economy and its public sector has become a world leader in e-government services. In 2003, Estonia launched its e-government portal, giving citizens online access to a select few government services. Just over ten years later, all Estonian residents now have access to e-ID cards that allow them to vote, pay taxes, and access over 160 government services such as registering property and receiving unemployment benefits. When the cards initially launched, the Estonian government was able to increase adoption quickly by offering a 30 per cent discount on public transportation to residents who registered with e-ID. Private sector industries including financial services, telecommunications, and energy have also used the e-ID for customer

authentication. For example, when Estonian banks determined that the government identification system was more secure than alternatives, they required customers to use their e-ID when conducting large cash transfers. Over 90 per cent of the country's residents now have e-ID cards and about 10,000 users visit the portal daily (McKinsey & Company, 2012).

Digital signatures are another means of secure authentication being used by government. The US Army historically relied upon paper forms and contract-based processes to help mitigate risk and provide control over mission critical operations. The Army recognized a need to increase accountability and responsiveness while reducing cost across its increasingly distributed workforce. It decided to adopt a fully web-enabled e-form solution that allows users to sign using only an internet browser (PRWeb, 2011). The new process received high rates of end-user adoption and satisfaction, with more than 1.6 million users digitally accessing 2,500 of the most critical US Army forms. The efficiencies gained resulted in \$38 million in annual administration cost savings and reduced processing time by as much as two hours per report.

#### **Consent Models**

The rise of the social media industry has sparked a global discussion on where the line between private and public information must be drawn. Popular sites such as Facebook and Twitter can easily gather data on their users, many of whom have publicly viewable profiles. These sites have sold their users personal information to advertising agencies that use the data to develop targeted marketing campaigns. While social media platforms generate the most controversy, a new era of digital information gathering means that questions surrounding privacy breaches are relevant across industries. This has created a

heightened emphasis on responsible data use for public sector leaders. Rather than simply reacting to security breaches, governments are developing consent models that entail rules and systems for ethical use of citizen identity information. How, when, and in what context citizen information can be used and shared has become a top policy priority for the public sector.

Strong consent models will have clearly defined standards by which organizations must comply at every stage in data gathering and analysis. Examples of consent model features include data minimization, de-identification, and user access controls. Data minimization occurs when no personal information is collected unless there is a clear need. De-identification focuses on eliminating information from data sets that could be used to identify a person. User access controls ensure customers are asked directly whether they are willing to let an organization gather personal information. These examples are some of the best practices outlined in the Privacy by Design initiative (Privacy by Design, 2014).

Privacy by Design (PbD) is an IT security framework that was initially developed by the Privacy Commissioner of Ontario (Canada) in the 1990's and has been refined to address evolving data privacy challenges. Its objectives focus on ensuring privacy and personal control over individual information. The framework is composed of 7 Foundational Principles:

- 1. Proactive not Reactive; Preventive not **Remedial** – Privacy by Design does not wait for privacy risks to materialize, nor does it offer remedies for resolving privacy infractions once they have occurred – it aims to prevent them from occurring.
- 2. Privacy as the Default Setting No action is required on the part of the individual to protect their privacy - it is built into the system, by default.

- 3. Privacy is Embedded into Design Privacy is embedded into the design and architecture of IT systems and business practices. It is not bolted on as an add-on, after the fact.
- 4. Full Functionality Positive-Sum, not Zero-Sum: Privacy by Design seeks to accommodate all legitimate interests and objectives in a positive-sum "win-win" manner, not through a dated, zero-sum approach, where unnecessary trade-offs are made.
- 5. End-to-End Security Full Lifecycle **Protection:** Privacy by Design, having been embedded into the system prior to the first element of information being collected, extends throughout the entire lifecycle of the data involved, from start to finish.
- 6. Visibility and Transparency Keep it **Open:** Privacy by Design seeks to assure all stakeholders that whatever the business practice or technology involved, it is in fact, operating according to the stated promises and objectives, subject to independent verification.
- 7. Respect for User Privacy Keep it **User-Centric:** Privacy by Design requires architects and operators to keep the interests of the individual uppermost by offering such measures as strong privacy defaults, appropriate notice, and empowering userfriendly options.

These principles were recognized in 2010 as the global privacy standard at the International Conference of Data Protection and Privacy Commissioners and considered a leading practice in secure data policy.

#### Cyber Security: New approaches to managing sensitive data

Cyber security refers to the information technology processes and practices designed to protect computer networks from unauthorized access by hackers. The exponentially higher quantity and complexity of digital information

stored has made cyber security a priority for public sector organizations. In 2013, the World Economic Forum identified cyber-attacks and critical-systems failure as two of the most concerning global risks (World Economic Forum, 2013). Its emergence as a key focus for governments can be attributed to two main factors. The impact of accessing government web-based information systems is greater than ever before.

The increased sophistication of hackers both in terms of their skills and global collaboration networks is leading to daily threats faced by governments. These threats range from accidental discovery of information to state-sponsored cyber warfare, organized crime networks, cyber terrorism, collective hacker networks, and "Hacktivism" (hacking activities motivated by promoting political ideals).

A global survey of more than 9,700 security, information technology, and business executives revealed that the number of security incidents detected by all respondents climbed to 42.8 million in 2014, an increase of 48 per cent over 2013. Almost half of the respondents said their perception of cybercrime risk is greater than 2013 (PwC, 2014).

The race to keep up with cyber-crime is speeding up quickly. Worldwide spending on information security will reach\$71.1 billion in 2014, an increase of 7.9 per cent over 2013, with the data loss prevention segment recording the fastest growth at 18.9 per cent (Garner, 2014). This trend is also reflected in the venture capital market. In the first six months of 2014, venture capital firms invested \$894 million in US cyber security start-ups, almost the same amount invested in all of 2013 (PwC, 2014).

Leading governments will position themselves to defend against the evolving threats that are

## **Enabling Technology: Optimizing the** power of information

being faced from all angles (Deloitte, 2014). This will mean having the agility to prevent, detect, and respond quickly and effectively, not just to incidents, but also to the consequences of the incidents. A forward-looking approach to developing cyber security capabilities and ensuring ongoing cyber threats are managed and mitigated involves:

- 1. Raising internal organizational awareness of the impact of a successful cyber attack
- 2. Identifying competent and aware cyber security champions
- 3. Developing a strategy for security operations and proactive management of cyber threats
- 4. Encouraging proactive logging, monitoring and reporting processes
- 5. Establishing live, dynamic threat intelligence feeds, conducting emerging threat research, and creating teaming to share intelligence
- 6. Measuring and managing the effectiveness of the overall cyber security program

The cyber security program requires continuous and proactive engagement from senior organizational leaders. An adequate commitment of resources, clear delineation of responsibilities and accountability, and periodic risk views are all key success factors.

#### Implications

Governments should consider:

- Developing digital authentication tools for customers that enable them to easily confirm their identities when accessing public services
- Designing and enforcing privacy-based consent models with clearly defined standards for organizations gathering and analyzing customer data
- Investing in the infrastructure and human capital necessary to reduce risk associated with global cyber security threats



*"The number one benefit of information"* technology is that it empowers people to do what they want to do. It lets people be creative. It lets people be productive. It lets people learn things they didn't think they could learn before, and so in a sense it is all about potential."

Steve Ballmer Former CEO of Microsoft Corporation <sup>4</sup>



#### Why this driver is emerging

Technology continues to be an increasingly important part of the way citizens, government and business operate. Organizations that leverage the use of innovative technology including analytics, mobile, social, cloud, and cyber can improve the quality and efficiency of public services. This includes taking advantage of abundant wireless connections, the explosion of mobile devices, prominence of social networking sites, opportunities for using analytics tools for fact based decisions, and cloud computing for on-demand services. Transformation of service delivery requires a willingness to experiment and improve the capacity to use technology for existing services. It also requires the ability to conceptualize and design public services with the latest digital technology.

#### Trends

#### Analytics: Simplifying complex data for decision making

By the year 2020, 90 zettabytes (1 trillion gigabytes) of information will be created every year, 50 times more than a decade earlier (Deloitte University Press, 2014). And to put this in to context, our 15th century counterparts experienced less data in their entire lifetime than we do in a single day (Smolan & Erwitt, 2012). Managing this data effectively and turning it into meaningful insights has been challenging for many organizations. Some have begun making targeted investments in new analytics tools that are increasingly being customized for their specific needs. Analytics tools can reveal underlying data patterns and simplify complex information for decision making. These tools have a variety of formats and serve wide-ranging purposes including predictive forecasting, data visualization, and optimization. As organizations race to adopt the latest and most

impactful analytics software, many of their current obstacles will continue to remain relevant.

A recent study of global leaders found that the biggest analytics challenges currently being faced are information overload, human capital limitations, and shorter time cycles (IBM, 2011). Information overload causes organizations to spend too much time managing data and not enough time working with it. It is estimated that in the public sector, analytics professionals spend about 47 per cent of their time collecting and organizing data, while less than a third is spent on analysis (IBM, 2011). The human capital limitations arise because data scientists have become in demand by virtually all large organizations. This role has even been referred to as the "sexiest job of the 21st century" (Patil & Davenport, 2012). While the supply will increase at a greater rate as the earnings potential improves, the rigorous quantitative nature of the field makes it difficult to attract talent. Shorter time cycles occur because data evolves faster than ever. Historically, decade old data may have been sufficient to make some forecasts and predictions. In today's fast-paced world, technology can change citizen behavior, remodel the way companies do business, and create multi-billion dollar industries in extremely short time periods. The pressure to have data collected, organized, and analyzed in real time has never been greater.

The University of Maryland Eastern Shore (UMES) is attended by 4,500 students who are enrolled in a diverse set of undergraduate and graduate programs. In the late 2000's, the university began noticing a three year decline in retention rates as more students began dropping out before graduation. Most of these students were considered to be "at-risk", meaning they had significant financial, social, and academic challenges. In response, the university made

a commitment to increase the resources of its support services. But it realized that more resources alone would make a negligible difference as many of these students were leaving without making an attempt at accessing support offerings. As a result, it also developed an analytics tool that would generate, in real time, a list of students who would likely need support services.

Traditional learner dashboards provide insight into student trends on a semester or annual basis. These timelines are too long and result in a relatively high proportion of student departures before it is determined support is required. UMES's new analytics tool pulls data from separate databases (e.g. records from the student information system, admissions, student financials, financial aid, course management, dining services, public safety, and attendance) into a common data cube that is updated nightly. This allows the system to flag students who are exhibiting certain behaviors and then assign them to support staff who can help them with their specific need. Identifying at-risk students early and having support staff proactively seek them out has substantially improved retention rates at UMES (Forsythe Jr., Chacon, Spicer, & Valbuena, 2012).

As evident in the case of UMES, the most successful use of analytics occurs when there is a clearly defined business requirement. Many organizations have their data scientists performing analysis that ultimately may never improve organizational performance. A Forrester study reveals that of the 92 per cent of analytics professionals that use predictive analytics, only 26 per cent could tell you the ROI of their campaigns (Forrester, 2014). Desired outcomes should be determined prior to significant time being spent collecting and organizing data. A more narrow but well-thought out strategy reduces the likelihood of data overload and drives better decision-making.

#### **Performance Management for Better Outcomes**

A large number of American local and state governments have implemented a new approach to performance management sometimes called GovStat, Performance Stat, CompStat or CityStat. These governments are setting outcome-based targets with quantifiable metrics and continuously updating their data in near real time. Weekly meetings with senior managers responsible for oversight and delivery are used to discuss progress and refine action plans. Some organizations are actively involving citizens through online updates or open public meetings. Public sector organizations adopting this approach have realized a number of key benefits:

- indicators such as customer satisfaction or wait times that are tracked over time
- for change, specific action items and accountabilities
- 3. Focused leadership and management attention: Leaders and senior managers attend routine meetings where progress is discussed and action items are refined
- contribute to the performance management process

This approach has provided significant results in a number of jurisdictions. For example, the New Orleans Office of Performance and Accountability has improved the customer satisfaction rating of the IT service desk increasing from 54% to 76% (Office of Performance and Accountability, 2014) . New Orleans also reduced its number of cross-departmental call centre referrals by almost a third through better service staff training and more supportive resources (Office of Performance and Accountability, 2014).

The San Francisco Police Department uses statistics to continually monitor crimes involving property and violence. Monthly meetings with the Captains of the District Stations are held to discuss trends, issues, and concerns in their jurisdictions as well as what strategies have been working. These meetings are open to the public and monthly reports are posted online.

#### Cloud: Utilizing the power of web hosting

Cloud computing is the hosting of services over the web or through a network of servers that manage information and connect devices. It is expected to grow from a \$41 billion business in 2011 to a \$241 billion business in 2020 (Deloitte University Press, 2014), making cloud one of the hottest areas in information technology. Historically, government organizations have had limited uptake of cloud as the perceived risk has outweighed the potential benefits. Many public sector organizations were uncomfortable with outsourcing the management of sensitive information to a third-party service provider in the early days of cloud. The fact that cloud computing is based on web hosting, potentially elevating the threat of a cyberattack, inflated these concerns. But as private sector organizations in information-sensitive industries such as financial services have successfully operated on the cloud, the public sector has begun to experiment with this technology.

**1.** A defined and manageable set of outcomes: Priority outcomes are identified with key performance

2. Clear action plan for improvements: A road map is developed that includes the planned trajectories

4. Public visibility and input: The general public has access to up to date data on outcomes and can

Cloud computing has a long list of advantages over traditional platforms, which continues to grow as leading technology companies make efforts to upgrade their web hosting services. These include:

- Flexibility: Many cloud services are offered on a "pay as you go" basis meaning organizations do not need to invest in large fixed quantities of computing equipment that leaves them committed for the long-term
- Scalability: Organizations can upscale or downscale information technology requirements depending on needs, making them more cost-efficient
- Accessibility: Employees can stay connected 7/24 through their mobile devices, allowing them to work anywhere, anytime
- **Predictability:** Fixed pricing and stronger security systems of service providers reduces the financial and operational risks of information technology
- Outside innovation of service: Ongoing innovation efforts of cloud service providers ensures connected organizations will stay up to date with new technologies, allowing them to take advantage of the latest technology

Several years ago the state of Colorado began experiencing rapid growth as an increase in startups, entrepreneurship, and innovation attracted highly skilled citizens from around the United States. The state's IT infrastructure was fragmented across agencies and the lack of coordination had led to duplicative processes, reporting inaccuracies, lack of integrated solutions, and poor asset management. To overcome these issues, the state government launched the Colorado Information Marketplace (CIM); a cloud-enabled platform for data sharing and crowdsourcing. The information hub has allowed government agencies, educational institutions, and healthcare providers to create greater value by improving research and innovation capabilities. Crowdsourcing on

CIM has provided citizens with an opportunity to contribute to the public good. For example, anyone who believes they have a high quality data set can submit it to administrators for publishing. The state government has leveraged these insights to identify and help solve pressing societal issues.

The fact that cloud computing has been among the top 10 strategic technology trends in Gartner's annual review each year since 2010 demonstrates both its importance and its lasting power (Gartner, 2014 - 2010). As customers of government services place ever greater priority on flexible connectivity, innovation and cost efficiency, public sector adoption of cloud computing will intensify.

#### Social: Engaging the socially connected citizen

Today, there are well over 1 billion Facebook accounts, 500 million Twitter accounts, and 175 million LinkedIn accounts (Forrester, 2012). By the end of the decade, over 5 billion people will be using social networks, representing about two thirds of the world's population (Deloitte University Press, 2014). Social media has not only changed the way people spend their time online, it has changed the way they socialize. Both the private and public sector have been quick to take advantage of the speed and scalability these platforms offer to connect with their customers. Organizations have begun launching social media focused divisions and new professions such as "Social Media Director" have already emerged.

The power of social media lies in its ability to act as a two-way interactive tool for raising awareness, engaging audiences, and gathering data on an organization's strengths and weaknesses. Over the past few years, there's been a dramatic increase in governments using Facebook and Twitter to raise awareness during emergency situations. Whether it involves an upcoming tsunami, a terrorist threat, or a heat alert, citizens

are now being given status updates in real time. They will often respond by providing additional information to governments as situations change. To increase citizen engagement, governments have experimented with initiatives such as launching policy idea competitions, encouraging feedback on existing policies, and hosting webinars on topics such as healthcare and small-business support. The high levels of traffic on the major social media sites means there are opportunities to draw valuable insights from available data. However, this data can sometimes be misleading, making analysis difficult. As the user base continues to grow, governments must invest in effective social media analytic tools to fully realize the value of this channel.

In January 2011, the Australian state of Queensland experienced substantial levels of rainfall leading authorities to declare a flood emergency. In the worst hit areas flooding had caused small creeks to guickly become uncontrollable water torrents that would move cars and other heavy objects. With very little warning available to residents in these areas, both emergency services and citizens took to social media to share information in realtime. Through the @QPS Media Twitter account, Queensland Police Service provided timely updates which were followed closely by local and national news networks. Over a period of a week

more than 15,500 Twitter users used the hashtag #qldflood to send 35,000 tweets containing floodrelated information. The police also ran a number of "#Mythbuster" tweets to dismiss any circulation of rumors and misinformation. Queensland's use of social media to initiate damage control in a state of emergency was widely considered a success and governments around the world have quickly begun adopting this strategy (Bruns, Burgess, Crawford, & Shaw, 2012).

#### Implications

Governments should consider:

- · Investing in the recruitment and development of data scientists who can unlock the value of big data through new analytics tools
- Creating a framework for analytics teams that ensures data collection, organization, and analysis is conducted with specific, tangible customer-focused outcomes
- Transitioning web-enabled public services to cloud computing platforms and considering hybrid approaches where sensitive information is involved
- Leveraging social networking platforms to communicate with customers interactively in real time



## Service Staff Culture: Realizing a new type of workforce



"Human resources are like natural resources; they>re often buried deep. You have to go looking for them, they're not just lying around on the surface. You have to create the circumstances where they show themselves."

Sir Ken Robinson Advisor on Creativity and Innovation <sup>5</sup>

#### Why this driver is emerging

The global recession has brought about a talent paradox. While high unemployment rates point to a surplus of labor, organizations report difficulty in finding and keeping the skills most important for their growth. There are multiple factors influencing this phenomenon, one of which is a lack of internal development programs that nurture skills continuously. A Deloitte study found that 73 per cent of organizations rate "workforce capability" as urgent, yet only 15 per cent believe they are ready to address it (Deloitte University Press, 2014). Moreover, 86 per cent of organizations rate "leadership" as important, yet only 13 per cent claim excellence at developing leaders at all levels.

Leading organizations are establishing flexible workforce solutions and placing an emphasis on learning and re-learning. To help integrate customer-centric approaches, these organizations are redefining the role of front-end service employees to a "profession" and treating their development as essential to long-term success.

#### Trends

#### **GovCloud: Flexible workforce solutions**

In today's quickly changing world, citizens not only demand government services to continuously improve, but also expect them to employ cuttingedge service delivery platforms at the same rate as the private sector. Evolving expectations means governments have to be more organized, forwardlooking, and adaptable.

At the same time, the resources available to the public sector to meet these expectations are quite different than just a few years ago. The exponential growth of technology has simplified front-end service and reduced the need for routine-based manual labor on the back-end. The demand for critical-thinking and communication skills

has increased, resulting in greater competition between organizations to attract talented human resources. Many of these highly sought after workers come from a new generation that have different workplace needs and aspirations than their parents. Flexible working arrangements, the ability to work on multiple projects, and the freedom to move between agencies are all part of the DNA of today's skilled employees (Deloitte University Press, 2012).

Most organizations, especially in the public sector, have not restructured their workforce models to meet the needs of emerging talent. Large bureaucracies tend to constrain employees by isolating them into separate agencies, forcing a focus on a narrowly defined functional role, tying compensation to hours worked, and requiring employees to work through a fixed set of hours. These outdated processes can lead to poor job satisfaction, limited productivity levels, and feelings of burnout.

The solution for many leading public sector organizations is based on the concept of In the private sector, British Telecom Group GovCloud. GovCloud leverages cloud computing's has found its 11,000 home-based employee are concept of enabling of shared resources, software, 20 per cent more productive than their officeand information on the internet to free up workers based colleagues. Best Buy has implemented a to work from wherever, whenever. Rather than "Results Based Work Environment", where the being confined to a functional role, the GovCloud number of hours worked becomes irrelevant model is based on "micro-tasking": dividing up and performance is measured by results tasks and distributing them to "free agent" workers to give people an opportunity to explore different organizations are prioritizing a more flexible, areas and develop their expertise in those that interest them. Instead of basing compensation on total hours worked, organizations devise pay-forto service delivery. performance models that take into consideration Learning and Re-Learning: Human capital for a quantity and quality of output. As workers rapidly evolving world build skills and find their passion, engagement levels increase while improving productivity and lowering turnover. Agencies no longer need a fixed set of resources as they can take as much human

capital as needed at a specific time with the unique skills required. Public sector organizations that can fully utilize the GovCloud model attract top talent and become leaders in their field (Deloitte University Press, 2012).

The US State Department's Office of E-Diplomacy offers remote online internships to university students through its Virtual Student Foreign Service program. A cloud component to its e-internship model was recently added that features a new micro-volunteering platform. Embassies around the world will be able to prioritize their required tasks, which will be assigned to remote interns based on their skills, interests, and schedules. The implications of such a model could be significant for the US State Department. For example, if the department's offices could easily access globally located staff with specific language and cultural knowledge, then a small time commitment could provide access to a wealth of knowledge (Deloitte University Press, 2012).

(Deloitte University Press, 2012). Across sectors, cloud-based model HR model and in the process generating a more efficient and effective approach

The next generation of creative knowledge workers is quickly entering the job market. Millennials will make up 75 per cent of the workforce by 2025

(Deloitte University Press, 2014). Unlike their parent's generation, Millennials will likely work for several organizations in multiple countries throughout the course of their careers. In today's evolving world, many of their currently sought after skills will be obsolete in just a few short years. From an employer's standpoint, competition to recruit young and talented employees will become fiercer. No longer having to compete with just local companies, a global human capital marketplace will emerge for young, ambitious difference makers. Developed countries will experience a shortage of skilled employees. The implication for governments is that they will have to try innovative new ways of recruiting candidates, aligning career paths to interests, and developing capabilities. Skills development specifically has witnessed a dramatic shift in the age of Millennials. These young workers expect training and development to be as accessible as a Google search. E-learning has taken off, with Deloitte estimating that 24 million people have tried online education (Deloitte University Press, 2014). It is now the norm for young people to show up to work expecting to build skills online.

By the fall of 2007, Canadian telecommunications company TELUS Mobility had an employee engagement level of 53 per cent. Learning took place at formal training events and collaborative technologies were a distant concept. In 2009, TELUS launched a Learning 2.0 model, which was based on the idea that learning should be formal, informal, and social. Collaborative technologies such as videos, blogs, virtual words, gamification and instant messaging were used to encourage employee alignment. A year later, an enterprisewide open and collaborative leadership framework called the TELUS Leadership Philosophy (TLP) was endorsed by the company to promote consistency in performing, managing, and leading. Since its adoption, TLP has become a part of recruitment,

onboarding, learning, succession planning, and performance development. The two programs have been attributed to a cultural turnaround at TELUS and as of 2013 employee engagement has risen to 83 per cent (Deloitte University Press, 2014).

E-learning is certainly not the only way that employers can accelerate the professional development of their staff. Interactive workshops, well-structured mentoring programs, and subsidies to be spent on skills training are all great ways to invest in employees. But what makes digital learning so favourable is its consistency and scalability. With a much lower investment than traditional in-person training, a large organization can provide high quality resources for all staff. The rise of digital learning has encouraged many companies (e.g. Salesforce) and top academic institutions (e.g. Harvard, Stanford) to launch a library of online courses. These courses, which large organizations should invest in, focus on a wide range of topics such as developing networking skills and using new analytical tools to unlock the power of big data. The challenge for public sector organizations will be anticipating the future relevance of skills and having the e-learning courses available as they slowly become more in demand. Leading organizations will not have to compete as aggressively for talent because they will have prepared their employees to take on emerging problems.

#### The Rise of the Customer Service Profession

More than ever, the success of many organizations has become dependent on their ability to continuously improve the customer experience. Understanding specific needs, having well-defined pathways, and ensuring the proper resources are in place to facilitate a smooth process are the building blocks for exceptional customer service. Employees responsible for customer

service design and delivery have not traditionally enjoyed the same profile as other job roles such as strategy, finance, or IT, and are sometimes perceived as less integral to the long-term success of an organization. This can result in a suboptimal commitment to skills development and absence of a clear career path. In contrast, many organizations make significant investments in their computer scientists, financial analysts, and other professionals in hopes of developing the next top executive. Looking forward, this will change, as customer service employees become viewed as professionals who are expected to progress up the ranks and lead organizational change.

Like other professionals, the customer service professional will have a set of qualifications that demonstrates their expertise in the field. Governing bodies will emerge to update best practices and ethical frameworks. Organizations will have formal training and development programs which provide ongoing support through various stages of a customer service professional's career. A career path may begin in a call centre where an individual will gain a front-line understanding of customer needs and current service weaknesses. As her knowledge and skills improve, the individual will manage the call centre and make the necessary improvements. Once successful in this role, she moves into a strategy position with the customer service division to share new insights and help develop delivery platforms. The individual may temporarily spend time with the marketing, sales, product/ service development, and information technology divisions to understand how other organizational activities align with the customer experience strategy. Those who perform exceptionally within the customer service division will eventually become executives, working closely with the CEO to be at the forefront of industry service standards. Their leadership skills will be heavily influenced by a strong track record of customer service and this knowledge and experience will guide strategic decision making at the Board level.

An early indication of the rise of the customer service professional is the establishment of a Chief Customer Officer (CCO) in some of the world's most influential organizations. A CCO is responsible for creating a customer-centric culture by resolving current service issues and developing innovative methods for enriching their customers overall experience. In 2003, less than 20 employees



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## Innovation: Developing a culture of creativity and solution-oriented execution

of big organizations held the role worldwide. Today, there are more than 500 CCO's worldwide and likely many more serving the role without the official title (Chief Customer Officer Council). Among Fortune 500 companies, 10 per cent currently have a CCO, which increases to 22 per cent among the Fortune 100 (Forbes, 2014). CCOs have come together to form a member-led peer-advisory network CCO Council (Chief Customer Officer Council). The council serves as a platform for CCO's to discuss their major issues and aims to provide valuable insights on best practices through its CCO Roadmap. Council members have access to a resource library and often speak at industry events as experts. Organizations that make an early investment in their front-line human customer service capital will reap the benefits for years to come.

#### Implications

Governments should consider:

- Introducing a cloud-based flexible workforce model that brings together the diverse skillset of "free agent" workers from across the organization to achieve outcomes more efficiently
- · Investing in new forms of professional development resources (e.g. e-learning) that will attract ambitious young workers and encourage existing employees to continuously develop new skills
- Ensuring customer service professionals entering an organization have the opportunity to progress along a clearly defined career path that can see them rise to the executive ranks and lead change





"Innovation distinguishes between a leader and a follower"

Steve lobs Former CEO of Apple <sup>6</sup>

#### Why this driver is emerging

Innovation is a novel creation that produces value. It is different than invention where the focus is on formulating new ideas for products or processes. Instead, innovation focuses on the practical application of new ideas that create value for users and for the organization. It can involve creating products or services that are new to an organization, a market, or the world. Innovation goes beyond products and services to include a variety of different types of innovation (Keeley, Walters, Pikkel, & Quinn, 2013):

- Economic models: How programs or services are funded
- Networks: Partnerships with others to create value
- Structures: Alignment of talent and assets
- Processes: Signature or superior methods for . doing work
- Program Performance: Distinguishing elements of core programs
- Program System: Complementary programs or services
- Services: Support and enhancements that surround core offerings
- Channels: How offerings are delivered to citizens or other users
- Brand: Representation of programs
- Customer Engagement: Quality of interactions fostered with the public and internal stakeholders

Organizations need to take a disciplined approach to innovation - and to building innovation capabilities - to ensure ongoing success. Leading organizations establish compelling innovation strategies in order to direct and concentrate the organization's efforts and resources and align

around direction and level of aspirations for different innovation efforts. These organizations conceive, build, and launch innovations to define and carry out an ongoing stream of effective concept development projects. This includes concept development, prototyping concepts, piloting design, planning and execution.

Organizations typically classify innovation into three ambition levels:

- 70 per cent of innovation activity in core services: Optimizing current programs and services for existing needs
- 20 per cent in adjacent services: Extending services and programs for "new to us" needs
- 10 per cent in transformational services: Developing breakthroughs and inventing programs and services for emergent needs

Successful innovation programs have rigorous yet flexible processes that include ideation and incubation, and a structured approach for implementation and diffusion to realize results. Key trends include the development of innovation labs within organizations, rapid prototyping of customer-oriented solutions and creating entrepreneur-in-residence programs to integrate alternative viewpoints in organization decisions.

#### **Trends**

#### Innovation Labs: Curating Innovation at Scale

Governments, like most large organizations, have historically lacked the drive for cuttingedge innovation that has defined today's start-up communities. Mistakes can be costly from a social, financial, economic, and political standpoint. This has sometimes prevented the public sector from experimenting with potentially transformative ideas. To help de-risk innovation, leading government organizations have established innovation labs. These creative hubs for innovation

bring together internal stakeholders, academics, citizens, and entrepreneurs to share perspectives on disruptive trends and to design novel solutions. They foster a safe-space environment where trial and error serves as the methodology and failure is simply a means to an end. Many members of the labs have been recruited to become immersed in a culture of innovation. Academics bring findings from recent research in psychology, science, economics, sociology, and other fields to demonstrate how flaws in conventional thinking may be limiting outcomes. Citizens are engaged through co-creation initiatives and encouraged to come up with new ideas that would improve their own experience. Proven entrepreneurs who have made big impacts on entire industries bring design-oriented thinking and an ability to get things done. While changing a large organization's culture to prioritize collaboration, innovation, and experimentation can be a longer term journey, innovation labs are an early foundational step and can help prioritize leadership commitment to innovation.

The US Department of Health and Human Services (HHS) began forming the roots of its acclaimed HHS Idea Lab several years ago. HHS Idea Lab was launched to construct a modern and agile paradigm for an organization that has traditionally been confined to a control-oriented and bureaucratic culture (Federal Times, 2014). It has done so through several initiatives which are connected by three pillars. The first of these focuses on encouraging the 90,000 employees at HHS to come forward with any ideas for change. Its "idea generation" competition called HHS Ignite awards the top three teams up to \$50,000 each and nine months to execute on their idea. The second pillar is designed to bring external expertise into HHS to help solve problems and fill knowledge or skills gaps. These experts are typically well established innovators who are

brought into the organization for 12-24 months to bring a fresh perspective. The third pillar focuses on the idea of catalyzing communities within HHS. These groups will solve either one-off discrete problems or work on problems that have a much longer lifespan and require attention and effort from outside of the traditional hierarchy. For example, HHS Buyers' Club has brought various stakeholders in the procurement process together and determined how to effectively incentivize desired outcomes. This initiative created a stepby-step playbook for executing procurement more efficiently.

#### Rapid Prototyping: From Idea to Impact

In most large organizations the process for turning an idea into an actual product or service can take months or even years. By the time it is ready to be rolled out to customers, the organization has made a major investment that may force its commitment over the long-term. Because unproven ideas pose greater financial risks, many public sector organizations are hesitant to invest in them. As citizen expectations are rapidly increasing, the pressure to be innovative while managing fiscal constraints is heightened. A proven solution is the use of rapid prototyping.

Rapid prototyping acts as a catalyst by allowing the public sector to refine products and services through experimentation in a controlled environment. Once an idea is approved, a prototype is quickly "mocked-up" and put in front of a potential customer. The goal is to mimic the end-to-end customer experience in the early stages of the process to get as much feedback as possible. Ideally, focus groups will be composed of a diverse set of customers that include subject matter experts who also use the product or service. Feedback is typically received in-person on a oneon-one basis to give developers an opportunity to listen to end-users and better understand how

- different customer profiles are responding. Once refinements are made, a small-scale pilot can be launched to a segment of the general public. Depending on its success, an organization may either roll out the pilot on a larger scale or hold off until more modifications are made. The entire process will continue even after the product or service is launched to all customers.
- In the public sector, governments have begun utilizing rapid prototyping for both developing new products and services and designing policy. The 2012 New York City Big Apps Challenge aimed to create innovative software applications that make local data more accessible to residents (Deloitte University Press, 2014). Organizers tapped into the developer community to access external expertise. They considered analogous challenges to help set the \$50,000 purse. Challenges were broken up into 10 topic categories including green, health and safety, and mobility; and clear requirements were posted for each category. These requirements included commercial benefits, inviting investors such as BMW to help judge the challenge. Finally, New York City included an "Investor's Choice Winner" and allowed the grand prize winner to demonstrate the app at the New York Tech Meetup. The Big Apps Challenge spurred the development of 96 apps using municipal data in new and innovative ways.

The UK government has established a team that focuses on experimenting with different approaches to implementing policy by taking into account people's cognitive shortcuts (Behavioural Insights Team, 2014). For example, they have found that small changes in the content and timing of text messages to citizens owing court fines will improve payment rates. These insights cost very little to produce but have a tangible impact on outcomes.

Many public sector organizations have limited experience with rapid prototyping which can make execution challenging. Understanding best practices and providing rapid prototyping training and resources to various organizational divisions is a good start. But even with this support the task of bringing good ideas to life in a short period of time can seem daunting. Organizations just learning how to rapidly prototype can benefit from bringing a team of experts together who rotate between divisions attempting to implement new ideas. These prototyping veterans will help get other members of the organization up to speed with the "learning curve" and coach them throughout the process. Once the product or service has reached a certain point, the prototyping team moves on to another division having the same early stage pitfalls as the one that came before it. Over time, the prototyping team will have moved throughout the organization and staff across divisions will have developed the skills to guickly prototype and scale promising ideas.

#### The Entrepreneur-in-Residence: Taking an outside-in approach

Entrepreneurs are innovators with imagination, creativity, and perseverance. They are able to break out of conventional thinking patterns to come up with new ways of solving problems and approaching opportunities. Large organizations often have difficulty recruiting and retaining ambitious entrepreneurs due to structured processes that can constrain the development of innovative ideas. Technology continues to lower the barriers of entrepreneurship and many young people are foregoing traditional careers in large companies and government institutions to pursue ambitious start-up projects. The result is that both the public and private sector may miss out on talented human capital that has the potential to instigate positive disruptive change on an organization or entire industry.

As the start-up culture continues to thrive, governments have begun more aggressively seeking entrepreneurial talent to help facilitate innovation. Entrepreneur-in-Residence programs have become an effective way of attracting innovators to industries such as the public sector that might lack the job roles that attract these types of skillsets. These programs bring individuals who have demonstrated exceptional entrepreneurial foresight and execution into an organization for a short-term period. Without being constrained by red-tape or long-term time horizons, Entrepreneurs-in-Residence are provided the resources and flexibility to turn ideas into valuable outcomes. They share their innovative insights with executives who may have become entrenched in a culture of "that's just how things are done here." They also act as two-way communicators, who listen and distill knowledge to citizens and government officials. Their ability to quickly make things happen can bring a healthy change to organizations.

In 2007, Mountain View, California based internet service provider Google was just about to turn ten years old. In the past decade, the company had revolutionized internet search and its dedication to innovation made it one of the world's most admired companies. That same year, it acquired GrandCentral, a telecommunications service that unified all of a person's phone numbers into a single number. As Google continued to grow, the passion for innovation remained as existent as ever but it became harder to maintain that "start-up mentality." In 2009, Google Ventures was launched to provide seed funding to technology companies in the growth phase. A year later, former GrandCentral CEO Craig Walker became Google Ventures' first Entrepreneur-in-Residence. Walker was given the freedom and resources to come up with innovative ideas, without the pressure and stress of running a startup. For example, when the

iPad had just launched, his team began assessing industries where the introduction of tablets would be really disruptive. He cites the ability to do anything without the burden of any business goal or preconditioned result as one of the best aspects of his job. In the time since the program launched, it has been an incredible success with several high profile members of the Silicon Valley's tech community having taken part as an Entrepreneurin-Residence (The Globe and Mail, 2013).



#### Implications

Governments should consider:

- Launching innovation labs which bring together employees with different skillsets to collaborate on developing solutions to business challenges
- Training teams on how to rapidly prototype and test new ideas effectively
- Forming teams of rapid prototyping experts who move throughout the organization assisting divisions to bring their new ideas to life
- Recruiting proven entrepreneurs that bring a fresh perspective on organizational issues and foster a culture of creativity

### **Government Collaboration: Working with** external stakeholders to create change



"The emergence of new technologies calls for fundamental rethinking and transformational shifts in the way we look at e-Government. Governments must take on the roles of a facilitator and enabler - to collaborate with the public, private, and people sectors in creating new solutions, new businesses, and new wealth"

Teo Chee Hean Deputy Prime Minister of Singapore 7

#### Why this driver is emerging

Public service delivery is evolving as social attitudes shift, technology enables a more collaborative economy, problem solvers approach challenges with new ideas, and more sophisticated capital markets for social investment develop and expand. These trends are influencing a new approach to public services that goes beyond what was traditionally considered as government provision, or charitable and not-for-profit delivery. For example, Eggers and Macmillan refer to the space being occupied by non-governmental players who are explicit in their intent to addressed societal problems as the "solution economy" (Eggers & Macmillan, 2013).

Governments are increasingly opening up decision making and governance to ordinary citizens who can actively contribute to solving problems that were once considered solely the government's responsibility. As part of this shift, the role of the government evolves from a passive service provider to a collaborator and facilitator. In the process, governments are recognizing the value of internal government-to-government collaboration and building more effective approaches for delivery through networked government.

#### **Trends**

#### G2G Collaboration

Government services are often delivered through a complex patchwork of services providers. This patchwork can result in costly "failure demand" - demand which can be avoided by earlier preventative measures. A citizen who is unable to access fine payment services appropriately and government misses out on this revenue, an at-risk youth who does not receive the proper counselling services and goes on to engage in a life of crime, an employee who loses their job and does not

receive the proper skills training and goes on to access long term unemployment benefits are just a few examples of this "failure demand". One estimate places this cost at more than 40 per cent of local public service spending (Government of Scotland, 2011).

A recent study of health services users in Ontario found that 75 per cent of seniors with complex conditions who are discharged from hospital receive care from six or more physicians and 30 per cent get their drugs from three or more pharmacies (Government of Ontario, 2012). The lack of integrated care creates unnecessary hardship for the patient and is an inefficient use of public resources. In response to this challenge, governments are bringing together service delivery partners to develop more integrated customer service solutions and creating a more seamless experience for citizens. This can involve more integrated staffing, funding, technology applications, service delivery tools, and coordinated case management. A recent report identifies several methods being used for better service integration (KPMG and the Mowat Centre, 2014). Client pathways typically involve the adoption of a portfolio approach to case management. This approach transcends program boundaries by helping clients who have complex or severe needs and / or limited ability to navigate systems by providing more intensive, holistic support.

The Government of Ontario has introduced its Health Links program to share information, including through Electronic Health Records, and measure results while working with their Local Health Integration Network to achieve short and long-term goals, starting with developing coordinated care plans for complex patients and increasing the number of complex and senior patients with regular and timely access to a

primary care provider (Ontario Ministry of Health and Long-Term Care). This approach is similar to the US Accountable Care Organizations where a group of coordinated health care providers forms an ACO, which then provides care to a group of patients. The ACO is accountable to the patients and the third-party payer for the quality and efficiency of the health care provided.

In many jurisdictions, different levels of government are involved in the funding and delivery of services in the same and overlapping program areas. Recognizing this challenge, The Ontario Government's Housing Policy Statement provides policy context and direction to service managers responsible for providing low-income housing and reducing homelessness (Ministry of Municipal Affairs and Housing). The policy statement defines the approach to "Housing First" and identifies the need to address client challenges and needs that are linked to ensuring stable housing, with a goal of connecting vulnerable clients to community supports and improving social inclusion. Examples of supported activities through programs like the Community Homelessness Prevention Initiative include on-site or off-site support staff, daily living and life skills supports such as budgeting and transportation assistance, and mental illness and substance abuse supports and services. The basic underlying principle of Housing First is that people are better able to move forward with their lives if they are first housed. Housing is provided first and then supports are provided including physical and mental health, education, employment, substance abuse, and community connections. Where all levels of government are able to align on a coordinated approach, it helps facilitate services that improve citizen outcomes.

Taking this approach even further are place-based service integration initiatives currently being

implemented in the UK (National Audit Office, 2013). These initiatives seek to bring together local and central government teams to develop "operational plans" for each pilot county that are structured around achieving key local priorities such as reducing long-term unemployment. Government organizations at different levels can invest in each other's interventions and benefit from the savings that arise.

G2G collaboration is not restricted to national boundaries. Singapore and Hong Kong are two of Asia's most developed economies and a popular destination for each other's business travellers. In September 2014, these governments implemented an Automated Immigration Clearance system that will drastically improve the convenience of shortterm immigration (Immigration & Checkpoints Authority, 2014). The agreement would benefit citizens who have visited the other country at least three times in the past twelve months and hold a passport valid more than six months. Individuals who qualify can register at the airport for a multiple journey pass valid for two years or until six months before their passport expires. This would allow them to clear immigration via automated gates on their own. It will make life easier for travellers while facilitating business activity between the two countries.

#### **Open Data**

Between now and 2020, the global volume of digital data is expected to multiply another 40 times or more (Deloitte University Press, 2014). Governments have historically restricted access to data assets to internal agencies and academic institutions. This is quickly changing as both citizen demand for public sector transparency and the economic value of data are increasing. The "open data movement" involves governments collaborating with external stakeholders to create user-friendly, publically accessible digital portals

that contain large volumes of data. It is part of a larger shift for government from being a provider to a solution enabler. According to the United Nations, 46 countries already have dedicated data portals (United Nations, 2014). By providing better access to information about their communities and government operations, these countries are encouraging public dialogue and citizen participation. They are also enabling companies to find efficiencies, create new services, and spur innovation.

While some governments have already made strides to open data, the biggest barrier has been ensuring high quality data is available in easily accessible formats. Forrester's business intelligence survey revealed that while 84 per cent of firms believe planning data is valuable to business strategy, only 15 per cent consider unstructured external data to be useful (Forrester, 2013). Governments must ensure the data they release is well-structured, accurate, and available to those who need it. Collaboration between multiple government agencies is often necessary to combine data from different departments and provide more opportunities for new insights (Deloitte Analytics Institute, 2011).

When resources are not available to transform data sets into user friendly formats, governments are outsourcing this function. A data broker - an independent organization performing aggregation, processing, cleaning, linking, analysis, promotion, and publication of data – can be the solution (Forrester, 2013). For example, UK based Placr compiles all of Britain's recently released public transport information and offers a single access point for cross-agency, multimodal transport data (Forrester, 2013).

In another example of international G2G collaboration, the United States and India launched a joint Open Government Platform designed to combine the best features of each country's data portal. The goal is to provide accessible data so that analysts, the media, and academics develop new applications and insights that will ultimately improve the lives of citizens. It is an open source platform meaning that its development will be based on its own community which will provide technology enhancements, government solutions, and technical support. Developers will create web and mobile applications, initiate competitions, develop tools for online citizen services, and publish links to important information compiled by government agencies. The open source strategy engages the public and expands the limits to what is possible. For example, an application could be developed to merge geographic data with government data to create easy-to-understand maps that show trends in areas like employment, environmental issues, and community health. While developers are expected to be the driving force, both the United States and Indian governments will provide the support necessary to ensure the platform is successful (Government of India, 2012).

The success of open data initiatives should be evaluated based on benefits to government rather than the number of data sets or downloads. These benefits often involve more rapid economic development, greater operational efficiencies, and/or increased customer satisfaction. For example, when the US government released global positioning data, it served as a catalyst for many new lucrative industries ranging from car navigation devices to restaurant locator apps. The US Federal Chief Technology Officer reported that in 2012 alone GPS data contributed \$90 billion to the economy (Forrester, 2013). In 2013, smartphones delivered GPS information to 1.5 billion people, and that number is expected to grow to 2.4 billion by 2017.

#### Crowdsourcing: Tapping into the wisdom of the crowd

In his 2004 book The Wisdom of Crowds, American journalist James Surowiecki argues that the collective opinion of many individuals will often result in better decisions than that of a single expert. Fast forward ten years, and information technology is allowing organizations to put the theory into practice through a process known as crowdsourcing. Crowdsourcing involves finding solutions to complex problems by engaging a group of individuals. The group could be composed of a few technical experts scattered across the country, or the country's entire population. To achieve its objectives, crowdsourcing should align with an organization's strategy, its internal requirements, and the crowd's capabilities. While crowdsourcing itself refers to a general concept, there are several ways it can be implemented. The five most common models are based around competitions, knowledge-sharing, fundraising, voting, and distributing labour (Deloitte University Press, 2014).

One of the most important aspects of crowdsourcing is designing incentive systems that engage targeted individuals and groups. Financial rewards, recognition, and a desire to contribute to the social good are some of the factors that act as motivating forces for the crowd. An effective crowdsourcing strategy will start by carefully defining the problem and then determining the desired outcomes. Once the objectives are clearly defined, organizers identify the participants and their motivations. The focus then becomes designing customized prizes that target the right problem, attract the most capable participants, and capture the imagination of the public (Deloitte University Press, 2014). When done well, crowdsourcing initiatives can serve as a platform for disruptive ideas, technologies, products, and services.

Governments can leverage crowdsourcing by either acting as a solution recruiter or a solution facilitator. In the case of a solution recruiter, governments directly engage citizens for a multitude of reasons which can include attracting new ideas, building prototypes, and stimulating markets (Deloitte University Press, 2014). For example, in Santander, Spain, the "City Brain" is an online platform where anyone can share ideas for policies and programs. Ideas are often recruited in contest formats where cash prizes are given for the best suggestions (Forrester, 2014).

As a solution facilitator, governments can use crowdsourcing to bring together external stakeholders for the purposes of improving social outcomes. One private sector organization which has successfully played this role is the open innovation company InnoCentive. Through hosting crowdsourcing competitions, InnoCentive acts as an intermediary between research-intensive industries and highly qualified citizens that can help solve problems. In 2006, Prize4Life, a nonprofit organization focused on finding a cure for ALS, posted a \$1 million prize on InnoCentive's platform for anyone that could accelerate the development of a biomarker - an inexpensive and easy-to-use tool that can accurately measure the progression of ALS in patients. An effective biomarker would make clinical trials of ALS drugs cheaper, quicker, and more efficient, clearing the way for pharmaceutical and biotech companies to develop treatments for ALS. By the second round of the challenge, when ideas must be turned in practical application, there were still 1,000 solvers from more than 20 countries. Through a five year process, a biomarker was identified that has the potential to reduce the cost of phase 2 trials by more than 50 per cent. Many other innovative ideas were also developed and have encouraged promising concepts in the fight to cure ALS (InnoCentive, 2011).

#### **Ecosystems: Enabling stakeholders to become** solution providers

Many players in the traditional economy operate on a siloed basis, and the lack of systems in place for stakeholders to take advantage of the skills and resources of one another limits their collective potential. Given the size and complexity of government services and the populations they are serving, public services are typically segmented into various agencies, each responsible for areas such as healthcare, transportation, and education. Companies, non-profits, and citizens all play separate roles in their own markets which contribute to overall economic development and social welfare. These diverse stakeholders usually work within relatively narrow horizons to achieve their organizational or personal goals.

Leading governments will make the transition to an integrated economy by paving the way for solution ecosystems - collaboration networks that come together to solve a specific problem (Eggers & Macmillan, 2013). The role of government will then transition to a central organizer. It enables internal and external stakeholders to become solution providers by facilitating relationships, designing collaboration systems, devising incentive schemes, and ensuring the proper infrastructure is in place. The synergies gained when a diverse set of players collaborate allows them to achieve their objectives much more efficiently.

An early archetype is Finland's emerging transportation ecosystem. The Finnish Government has embarked on a new transportation plan that it believes could eliminate the country's demand for cars by 2025. The goal is for all possible forms of transportation services to be accessed through a central digital platform and funded by a well-designed, affordable payment system. What makes Finland's plan so unique is it intends for everything to be completely ondemand and tailored to individual needs. For example, parents could use an on-demand bus system to send their children to school while they use a ridesharing service to get to work. Should the weather change for a cyclist using a public bike, the journey planner will recommend and help arrange for an alternate transportation mode. The plan will require significant infrastructure investments, but Finland believes that as technology continues to improve and more citizens enroll in the plan, it will lead the way for how urban cities approach transportation (ZDNet, 2014).

#### Implications

Governments should consider:

- Integrating the resources of multiple service delivery partners to provide better customer solutions and a more seamless overall experience
- Launching open data platforms that provide citizens, companies, not-for-profits, and academics the opportunity to generate insights that bring social and economic value
- Recruiting solutions through crowdsourcing activities that can attract innovative ideas, lead to the development of prototypes, and stimulate new markets
- Bringing together multiple stakeholders with a diverse set of skills to form "solution ecosystems" that are based on collaboration and co-creation



### Outcomes by Design: Building customer needs into the DNA of service delivery



"To achieve outcomes at scale, you can't just look at the inputs – you need to focus on systems"

Jim Yong Kim President of The World Bank<sup>8</sup>

#### Why this driver is emerging

Governments have begun a fundamental shift in the way services are designed, funded, and delivered. This involves a move away from focusing on inputs (the resources that enable a service to operate), activities (the specific interventions delivered by a service provider), and outputs (the direct results of a program or service) towards outcomes (the impact of an intervention on the lives of users). Early examples of this trend include increasing tax payment rates through better designed collection processes, and innovating service delivery through payment for outcomes. The payment-for-success approaches have been focused on areas that can be more easily measured such as recidivism and return-to-work but are expanding to other areas as early pilots are demonstrating promising results.

This renewed emphasis on outcomes is also a direct response to critiques of the failure of government to make more evidence-based decisions. The Former Director of the United States Congressional Budget Office Peter Orszag recently estimated that less than 1 per cent of American government spending is backed by even the most basic evidence that the money is being spent wisely (Orszag & Bridgeland, 2013). This trend is also reflected in a range of evidencefirst organizations such as the Centre for What Works and the Coalition for Evidence-based Policy. The UK government has developed a unit cost database that articulates the cost for a variety of service outcomes. For example, £ 64,819 is the cost of a child taken into care for a year; £ 39,472 is the cost of a prisoner per year; £ 11,972 is the cost of somebody being excluded from school (New Economy, 2014). There are now more than 600 unit costs covering crime, education and skills,

employment and economy, fire, health, housing and social services. These costs can be used to inform proposals for the implementation of new interventions, the redesign of public services or their evaluation.

#### **Trends**

#### **Nudging for Better Outcomes**

Most government policies are developed under the assumption that citizens have rational preferences and behavior. For example, by penalizing citizens who do not pay their taxes in a timely manner, governments are incentivizing citizens to meet deadlines. By encouraging citizens to donate their organs on drivers licence renewal forms, governments will ensure those interested will sign up to do so. By sending out financial aid forms for post-secondary enrollment to low-income citizens, those seeking higher education will fill out and submit applications. Though governments have enjoyed some success under this traditional approach, many governments have recognized the limits and begun to realize that citizens behave far more irrationally than expected – often in predictable ways. Most people have a set of cognitive biases that influence their decision-making, often resulting in less than ideal personal or social outcomes. Leading public sector organizations have begun the practice of "nudging": designing programs and policies that take cognitive shortcuts into account to experience directly measurable improvements in results.

The emergence of policy design based on cognitive biases has grown out of the field of behavioral economics: the study of how human psychology affects economic decision making. Behavioral economists have shown that not only are people irrational, but their irrational behavior follows common patterns that can be influenced (Ariely, 2008). The implication for government is that policy makers must have a strong understanding of how people behave and their reasons for doing so. While the cognitive shortcuts that drive human behavior are generally not obvious, through robust policy research programs and experimentation, public officials can uncover and leverage these biases. Even the slightest adjustments to policy approaches can change how people react. There is a growing evidence base of common cognitive biases and examples of how they can be used to improve outcomes:

#### **Default Option**

People generally have an irrational preference for the current state of affairs

Example: Austria has a 99.98% consent rate for organ donation while Germany only has a 12% rate. This is a result of Austria's default 'opt-in' option causing people to remain a part of the program

#### Simplification

There is an in-built tendency to avoid or procrastinate an activity as a result of complex information

Example: The US Department of Education used tax data to pre-populate select applications for financia aid. When combined with face-to-face assistance, the experiment, led to an 8% increase in university attendance for low-income Americans who received the intervention compared to a control group

#### Figure 6

Social Norms
People will tend to match attitudes, beliefs, and behaviours to group norms <i>Example</i> : When UK citizens were sent letters informing them that most people pay their taxes on time, payment rates increased from 33% to 38% in 23 days
Salience Bias
The presence of honesty when filling out documentation will depend on its perceived importance
Example: A group of researchers tested the impact of signing before disclosure. In every case, there was

#### The Government Summit Thought Leadership

Sources: (Johnson & Goldstein, 2003), (Hallsworth, List, Metcalfe, & Vlaev, 2014), (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2009), (Behavioural Insights Team, 2012)

The UK government was one of the first to make a major investment in developing its nudgingdriven policies with the creation of the Behavioral Insights Team (BIT) in 2010. The organization, which brings leading civil servants and academics together, uses behavioral insights to develop more effective government policies (Behavioural Insights Team, 2014). The initiative has been used to drive a number of new approaches across various areas of the public sector. In one experiment, by entering voters into a £1,000 lottery, electoral participation rates rose by 3.3 per cent. This increased to 4.2 per cent increase when the prize was £5,000. The team has found that right incentive systems will have a tangible effect on citizen behavior.

Four years after the BIT was launched, the United States established the Social and Behavioural Sciences Team with the goal of leveraging behavioural insights in the policy making process. The governments of Denmark, Canada, and Australia have also made strides in incorporating "nudging" practices in government policy.

#### **Payment for Outcomes**

Governments around the world are facing greater fiscal pressures while being expected to continually improve the quality of public services. In many places, populations are increasing at a far greater rate than government resources. Technology helps overcome this gap, but there is still intense competition among government agencies for access to limited funds. When underfunded areas of the public sector lead to poor service, there is often greater pressure to increase financing. Yet in

so many cases more funding does not bring better outcomes. Limited financial resources can play a role in unsatisfactory service, but its impact is often overstated.

Improving the use of available resources by creating better incentive systems will have a more tangible effect than increasing funding. A "payment for outcome" approach - one that ties financial support to defined results - is proving to be an effective solution. For example, high schools could be funded based on standardized test scores instead of the number of students enrolled. This could prevent them from enrolling too many students and comprising the quality of education. Hospitals could be funded based on a metric that measures the quality of care instead of the number patients. This can help ensure they don't exceed appropriate capacity levels and patients receive effective treatment. Employment services agencies could be funded based on the number of program participants who receive long-term employment.

Good payment for outcomes systems such as social impact bonds are beginning to gain momentum in the public sector. Their emphasis on realizing maximum value for every dollar spent makes them attractive to governments. They can provide more freedom for agencies, giving them the opportunity to be more innovative in their approach to service delivery.

In June 2011, the UK government launched a new payments-for-results "welfare to work" program aimed at helping reduce long term unemployment (Department for Work & Pensions, 2012). Under the program, unemployment services are contracted to a range of public, private, and not-for-profit organizations. Payment systems are incentivized so that it becomes financially more rewarding for a service provider to help find a client employment and have them maintain it over the long-term. A small fee is given to providers

when they take on a new client, a job outcome payment after 3-6 months of employment, and sustained payments every four weeks after that. Requirements for providers have also been reduced in order to encourage innovation and improve the efficiency of resource allocation.

Formative evaluations have indicated that the program has improved the cost efficiency of achieving intended outcomes. Despite the improvement, the UK government has committed to continue refining the program. One early issue that was identified was that service providers were giving preferential treatment to "job ready" candidates over those with bigger gaps (National Audit Office, 2014). The reason for this was these candidates are more likely to get to a point in the employment process where the sustained funding for the provider would be given. The lesson learned in this case was the importance of segmenting all stakeholders and carefully assessing how payment for outcome policies will change the approach of providers and impact citizens.

Other key success factors for governments when employing a payment for outcomes approach include codefining outcomes, creating the conditions for flexibility, and investing in ongoing communication between all stakeholders (Institute for Government, 2014). Co-defining outcomes involves working with those at the agency or service provider level to define the set of measurable results being tied to funding. These individuals will have a better understanding of what is achievable and how incentive systems can facilitate reaching their goals. To create the conditions for flexibility, governments should structure payment for outcome contracts with a long-term focus. Short-term contracts puts pressure on service providers to meet near-term targets and gives them little time to experiment with innovative new ideas. Ongoing communication involves generating feedback from service providers and citizens to gain insights into the status of their initiatives. This information can be used to modify polices, provide more focused support, and educate stakeholders on how they can maximize the impact of new systems.



#### **Social Impact Bonds**

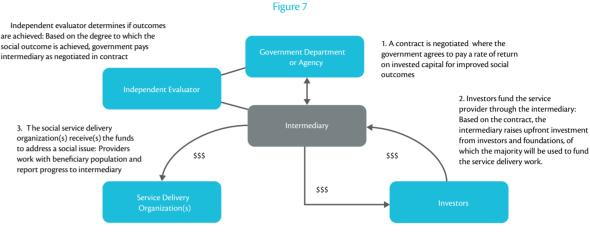
A Social Impact Bond is a new approach for funding and delivering public services. It is based on an innovative business model involving the government, an investor, a service provider, and typically an intermediary. In the model, the government works with an intermediary to develop a contract that outlines the payment it must make if a social outcome – such as reduced re-offending, increased employment, or improved educational outcomes - is realized. The intermediary raises capital from investors which is used to fund service delivery. An independent evaluator assesses whether the social outcome was achieved as defined in the contract. If the objective is met, the government pays the investors a return.

In 2010, the UK became the first country to launch a Social Impact Bond, with the aim of reducing reoffending rates. As of 2014, the reoffending rates had fallen by 8.4 per cent compared to a control group (Third Sector, 2014).

Social Impact Bonds have a number of potential benefits for service delivery including:

- Leveraging private capital: Private investors who are interested in both a social and financial return can provide financial resources for service delivery
- Risk-sharing: The risk of desired outcomes not being obtained is transferred from the government to investors
- **Outcomes focused:** Shifting the focus from activities to defined results encourages a disciplined service approach that can add greater measurable social value
- Innovation in service delivery: With an emphasis on outcomes, service providers are enabled to develop innovative approaches to delivery
- Longer planning horizon: Service delivery providers focus on achieving sustainable success over a contextually appropriate time horizon rather than an annual budgeting cycle

Impact investing can be applied to a wide variety public services. There are now more than 28 social impact bonds being implemented globally with a combined value of over \$185 million (Finance For Good, 2014).



Source: Deloitte Analysis

#### Implications

Governments should consider:

- considers how "cognitive shortcuts" influence human decision making
- approach that incentivizes results



• Conducting small-scale policy experiments using insights from behavioral psychology research that

• Transitioning from payment for input and output service delivery models to an outcomes based

### **Common Implications**

### Conclusion

While governments around the world are all at different degrees of capability and investment relative to service delivery, a number of common implications to these eight drivers and twenty-four trends trends should be considered:

- 1. Know your customer different citizen segments will have varying demands for service and willingness to help governments drive efficiency
- 2. Build Digital channel capabilities start to define your Digital Roadmap where the most impactful investments will help lower operational costs and drive improved service experiences
- 3. Privacy is non-negotiable review processes to ensure that customer privacy laws and guidelines are adhered to, and that effective recovery processes are in place if needed
- 4. Understand your technology opportunities - you do not have to implement all the latest technology innovations, but be fully aware of the options available to your organization
- **5. Invest in people** they are critical to drive change. Ensure that staff have strong learning and development programs to help them improve customer service
- 6. Commit to service Innovation launch a formal and proactive service innovation program that continuously reviews and enhances the current way of "doing things"
- 7. Open your aperture to a broader set of partners, stakeholders and networks - this includes citizens, not-for-profits and private sector organizations that can bring fresh perspectives on service delivery solutions as well as additional resources and skillsets
- 8. Ensure that service solutions have an outcome focus - build very clear KPI's and specific measures to tie service initiatives to actual outcomes that matter for customers





As the emphasis of service delivery continues to shift towards exceptional and efficient customer service, governments will be encouraged to make targeted investments in their customer service capabilities and infrastructure.

The eight drivers and twenty-four trends identified in this outlook report form the basis of the future of customer service. The drivers and trends are interconnected and implementing one well can help facilitate another. Leading governments will take advantage of technological advances to meet rising customer expectations and respond to heightened fiscal pressures that characterize today's customer service operating environment.

In the digital era almost all government services will have a web-enabled component to them. Ensuring that all citizens have the ability to access and navigate digital channels is one of the most important steps in the process. To meet rising expectations, public sector organizations will focus on integrating multiple channels so the customer can seamlessly move between them. They will aim to personalize service delivery by understanding customer needs and providing customers with the opportunity to choose how and when they interact with government. Today's digital platforms such as cloud computing networks will make this transition more cost-effective.

New analytics tools and behavioral psychology research are making it easier to predict how customers will respond to new offerings. Rapid prototyping processes that quickly bring ideas to life and use customer feedback to make refinements are making it more efficient to evolve service delivery. Leading organizations have launched innovation labs to facilitate rapid prototyping of these concepts. These labs bring together a diverse group of employees

### Glossary of key terms

and attempt to eliminate red tape and focus on solution-oriented execution. Market pilots of service initiatives will always be the best means of validating and refining innovative ideas; the best governments will always be the ones most courageous to experiment with and learn from new service initiatives in the marketplace.

While technology will be the focus of future public sector service delivery, governments will not overlook the human element. The face to face service delivery channel will always be necessary, and public sector organizations will continue to improve this channel through "one-stop shops" and self-serve citizen kiosks. As service staff skills shortages emerge, greater investment in recruiting and developing top talent will be necessary for most organizations. The new generation of ambitious professionals has a different set of needs than their parents and they enter the workforce at a time where skills can become irrelevant fast. Offering work-life flexibility and continuous professional development becomes necessary for retaining talent and develop Service Professionals of the future.

The public sector customer service representative has daily interactions with citizens and understands their perspective better than most public sector employees and executives. They have a wealth of knowledge and their lessons learned should be communicated across the organization. Governments will invest in their professional development and provide these customer service professionals a clear pathway to move up the ranks of the organization and become future public sector leaders.

The best citizen service organizations will also closely follow trends in other customer-focused sectors such as banks, travel and leisure, and entertainment. The types of service received in those sectors will have a large impact on service

demands from government. And as those sectors advance, service delivery partnerships will open up for government. In many countries, the service delivery role of government may change; they may have stewardship obligations for service delivery but not have to always be the ones directly delivering service. Some governments may cede that role to private sector experts that focus on service delivery as their core business.

Those governments who want to excel at and continually improve their service operations and impact will stay close to the trends reviewed in this report. Such trends much be reviewed at least every year as the evolution in this sector has been very rapid. The best governments will also build and maintain close networks with their regional and global service delivery peers. They will share lessons learned and participate in global forums to understand and pilot new initiatives.

This service delivery sector will continue to evolve and will pose a variety of exciting efficiency and effectiveness opportunities for governments, citizens, and other stakeholders alike.



Analytics: Refers to the skills, technologies, applications, and practices for continuous iterative exploration and investigation of past business performance to gain insight and drive business strategy. Business analytics makes extensive use of structured and unstructured data, statistical and guantitative analysis, explanatory and predictive modeling, and fact-based management to drive integrated decision-making.

**Bridging the digital divide:** The efforts by leading governments to reduce the gap between those that have the access and skills to take advantage of technology and those that do not.

**Cloud:** A type of computing where IT-related capabilities are provided as a service across the internet and are highly scalable based on user needs.

**Consent models:** A set of rules and regulations on data collection processes that are designed to protect a customer's right to privacy.

**Crowdsourcing:** Finding solutions to complex problems by engaging a group of individuals, often from a variety of backgrounds.

**Customer experience:** The quality and nature of interactions between a customer and an organization, including the customer's perception of the overall encounter with an organization.

**Cyber security:** Information technology processes and practices designed to protect computer networks from unauthorized access by hackers.

Data scientist: An individual who uses statistical methods and analytic tools to collect, organize, and analyze data.

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**Digital by default:** A concept initiated by the UK government that requires digital service platforms to be so user-friendly and convenient that they are the primary interaction channel for most customers.

Solution ecosystems: Multi-stakeholder communities where governments, companies, notfor-profits, social entrepreneurs and citizens come together to co-create better outcomes.

Entrepreneur-in-Residence (EiR): A proven entrepreneur who temporarily joins a big organization with the objective of bringing a "startup mentality" and sparking creativity.

**GovCloud:** A cloud-based government workforce model where projects are staffed by "free agent" workers from within the organization who have a specific set of skills and experience

Innovation: Innovation is a novel creation that produces value. It is different than invention, focuses on creations that are new to an organization or a market, creates value for users and the organization and goes beyond products and services to include platforms and economic models.

Innovation lab: A creative hub within an organization that aims to overcome bureaucratic processes by attracting new ideas and leading change.

**Internet of things:** The rapidly growing phenomenon of everyday devices having internet connectivity embedded in them.

**Made-for-me:** Personalizing service delivery by providing customers with a flexible set of options to choose from and allowing them to customize their experience.

**Nudging:** An approach to policy that uses behavioral psychology principles to experiment with new initiatives.

**Omni-channel:** A multi-channel approach to service delivery that allows customers to seamlessly move between channels.

**Open data:** The idea that governments should increase public sector transparency by making data available to the general public in an easily accessible format.

Payment for outcomes: A results-based approach to public service where funding is based on measurable performance.

**Phygital:** The level of integration between the digital and physical world.

Rapid prototyping: A process by which a concept or idea is quickly turned into a working prototype and continually refined based on enduser feedback.

Wearables: Smart technology devices that can be worn by the user.

Social media: Web-based platforms that enable users to participate in social networking and share content.



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