

Driving digital transformation of human services delivery

Applying lessons in digital innovation to transform how governments provide human and social services

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Introduction

The transformative power of technology in human services delivery

Just as technology is profoundly changing the way we live, communicate and interact, it is also transforming the provision of human and social services, offering new ways for governments to deliver services and connect with citizens.

Governments are embracing technological transformation to do more with less — in light of tighter budgets — and also to help government leaders do more to help their constituents, who today want their interactions with government to be convenient and quick.

But governments face enormous hurdles in doing so. These bulky complex, and multi-layered organizations have significant structural and operational challenges.1 Their great size creates an institutional aversion to risk, and their monopoly position may stunt the incentive to innovate to retain their customers. They are also characterized by a compartmentalized, silo mentality, in which departments develop unique processes and customized IT solutions, and are subject to strong budgetary pressures that often preserve outmoded technology and procedures.

While the challenges of introducing new technologies are significant, they are temporary in nature when compared to the long-term benefits of digitalization. This technology enables the exchange of information on a previously unimaginable scale, allowing related government agencies and external service providers to share data and coordinate efforts. It also provides governments with far more data than ever before about what citizens need, who uses these services, how they do so and with what effect.

In addition, new technology is making services more efficient and effective. For example, as we explore in the following pages, mobile apps can improve service delivery to vulnerable citizens while predictive analytics can help governments better protect children, prevent homelessness and anticipate service demand, often at a lower cost. And, these innovations align with the rising expectations of citizens who are accustomed to digital commercial interactions and want government to have contemporary communication and service delivery systems.

Ultimately, these trends and emerging capabilities create the potential to transform governments' approach to human and social services delivery. By using technology to share information, connect users and services, and work collaboratively across service areas, governments will optimize their resources and transform the experience of citizens.

Through this report, we aim to provide timely insights on the potential to harness information and technology to benefit both the service provider and the service consumer. We believe that, by understanding the opportunities, and thoughtfully addressing the challenges, governments can make a transformational shift from delivering programs one agency at a time to focusing on their role from the citizen's perspective.



Liz Forsyth Global Lead for Human and Social Services KPMG in Australia

¹These observations are drawn in part from Forbes Insight, *Digitizing Human Services: Field* notes and forecasts from the front lines of government's technological transformation (2015).

The power of mobile apps: Human services from the citizen's perspective

Mobile technology can make interacting with government easier for the general population, deliver essential services to vulnerable citizens such as the homeless or children at risk, and improve work processes for service providers.

Mobile technology is growing at a breathtaking pace. As smartphones have progressed over the past decade from luxury items to indispensable tools for everyday life, mobile apps have become ubiquitous. By 2017, there will be an estimated 2.6 billion smartphone users globally²—over a third of the world's population—encouraging the development of more and better mobile apps.

With widespread adoption and user-friendly features such as portability and a touch-screen interface, the smartphone or tablet is an ideal delivery system for an array of human and social services. And mobile apps are easily adaptable and customizable. They can make interacting with government



Ask Izzy

Nearly **one in 200 Australians is homeless** on any given night and 80 percent of these people have a smartphone device in their in their hands.

-Infoxchange

Infoxchange is a not-for-profit social enterprise that uses technology to tackle social challenges. It developed **Ask Izzy**, a free, location-based mobile app that helps homeless Australians find food, shelter, health, legal advice and other essential support. Users can search a database of more than 350,000 services across Australia.

easier for the general population, deliver essential services to vulnerable citizens such as the homeless or children at risk, and improve work processes for service providers.

Apps aren't right for every aspect of service delivery. Transactions requiring a lot of data input, for example, can be frustrating to complete on a mobile device. As well, some types of social services will always require building personal relationships through face-to-face interactions. Governments must therefore take a strategic approach to developing appropriate mobile solutions. As the following insights demonstrate, successful apps keep the focus clearly on the citizen-user by providing the best experience based on the users' needs, usage and preferences.

The benefits for citizens

Mobile apps can save citizens a lot of time. Fewer face-to-face visits to human services departments mean lower transportation costs, less need to make childcare arrangements, and fewer lost work hours. Apps also empower citizens by giving them easier access to information and better service responsiveness.

As an example, the Australian Government Department of Human Services has developed a suite of apps that enable citizens to do most of their business with federal agencies on their mobile device.

The Express Plus Families app lets them update a family income estimate or other personal information, request a statement, view their childcare details, claim benefits and advance payments, and make many other transactions. The other five Express Plus apps focus on Medicare, job seeking, students, seniors, and income reporting. The data collected from these apps can be combined to create a user profile and analyzed to derive insights.

Similarly in the United States, the Texas Health and Human Services Commission debuted a mobile app called Your Texas Benefits in 2014, four years after launching a self-service website. The app lets users apply for, manage, and renew their social benefits. In the first six months, the app surpassed the website as a way to upload documents.³

Evidently, citizens are finding the ease and convenience of the technology appealing.

² Data aggregated by Statista, <u>www.statista.com</u>, 1 September 2016.

³ Forbes Insight, Digitizing Human Services: Field notes and forecasts from the front lines of government's technological transformation (2015), 19.



In Denmark, the mobile app Be My Eyes connects blind people to sighted volunteers using

live video chat via a smartphone camera. The blind person 'borrows' the volunteer's vision to navigate new surroundings, read product instructions, check the expiry date on a carton of milk, or get any other needed visual information.

Apps for the elderly

Ensuring the safety and quality of life of the elderly represents a special challenge for governments, as this population may not be comfortable or familiar with mobile devices.

A UK initiative is addressing the issue by offering socially isolated elderly citizens a free trial of an iPad with an app called Mindings installed. Mindings is tailored for the "technologically shy" and allows relatives, friends and caregivers to send messages and captioned photos to the elderly person. Once users gain confidence, many become interested in using apps more widely to create or maintain social links, find information, or accomplish everyday tasks more independently. Data from the tool could be further used to better understand the needs of the elderly, and applied to improve existing infrastructure and support provision.

Such projects don't deliver direct cost savings, but by reducing reliance on other, more mainstream health services they can save public money. And by combating loneliness they improve the lives of citizens.

Apps for those with disabilities

People with behavioral or developmental disabilities often need an array of services — for transportation, therapy, and training to facilitate their active participation in the community.

The Mississippi Department of Mental Health has turned to technology to redesign its processes and improve the effectiveness of its services. A key aspect of its program is a mobile app called Talking Tiles. The app customizes a tablet or smartphone according to the individual. It can teach vital life skills such as paying at a checkout, or allow a non-verbal user to express needs by pointing to pictures.4

Similarly, citizens with physical disabilities are helped by such tools as the Out & Abouwt app developed by Australian not-forprofit Villa Maria. The app allows users to rate venues and events for accessibility features and to filter options by criteria such as distance and location.5

Technology used in such contexts creates a win-win: in an era of austerity, governments are enabled to do more with less, and citizens are empowered to manage their own lives more effectively.

The benefits for service providers

Mobile technology also offers significant benefits to service providers. Apps such as Your Texas Benefits have cut the amount of time staff spend on data entry, paperwork, and routine inquiries. That means employees can focus on valueadded services, increasing their own job satisfaction and performance and reducing staff turnover.

But mobile technology doesn't simply shift basic administrative tasks from the service provider to the citizen. It can also be used in "back office" applications that improve the flexibility of service delivery.

In Boston, for example, building inspectors are now handling forms and applications on site with the aid of mobile tablets, and in New York, homelessness field workers are prioritizing their daily case work as they receive data on their smartphones.⁶ An urgency score can also be added to each task using text analytics so that inspectors can prioritize their work.

⁴ Forbes Insight, Digitizing Human Services, 20.

⁵ http://www.probonoaustralia.com.au/news/2013/10/disability-app-%E2%80%98out-about%E2%80%99#sthash.GbLaMTzK.dpuf

⁶ Forbes Insight, Digitizing Human Services, 26-27.

Meanwhile, governments are finding savings in reduced staff overtime, postage, faxing, photocopying, and call-volume costs — not to mention lower overheads in terms of office space and personnel.

The data generated through the use of apps also offers significant secondary benefits, for example, enabling service providers to rapidly adapt their models and modes of delivery, as it offers the most reliable and, crucially, real-time data on patterns of service use, needs and preferences. The collective power of such data will, over time, drive service reform and assist providers to deliver services more efficiently.

Design imperatives and challenges

The benefits of mobile technology are considerable, but for apps to be effective governments must design them from the perspective of the user, rather than grafting them onto established processes in individual departments.



In the UK, the National Health
Service eRedbook lets parents
keep a digital personal health
record for their child. The child's
vaccinations, developmental
milestones, and any other health
details are always accessible
on the parent's smartphone
— ready for the next medical
appointment, a trip to emergency,
or school registration.



Ask Izzy

The most important features in Ask Izzy came out of the co-design and consultation process with over 2,000 people with lived experience of homelessness and frontline workers... **We kept the user experience simple** because this cohort can have complex issues, sometimes English as a second language or low literacy.

The interface must be intuitive and extremely easy to use for individuals to choose mobile channels for service delivery. Apps work best when the number of screen swipes and taps can be kept to a minimum, for example, and it's essential to build in feedback. Research has shown in particular that people in crisis may not trust technology that removes face-to-face interactions. They want the reassurance of seeing their documents delivered into the appropriate hands, so apps that provide receipt notices can help them view the technology as reliable.

Design considerations such as these are part of the essential process of bringing citizens on board with technological innovation. Forward-thinking governments around the globe are using behavioral science techniques to determine how users engage with new apps in real-life contexts. Rolling out mobile solutions in controlled stages to gain acceptance ensures that the technology truly supports, rather than drives, service delivery — and that it considers the perspective of the citizen.

⁷ Lauren Aaronson, Assistant Deputy Commissioner, City of New York Human Resources Administration, quoted in Forbes Insight, Digitizing Human Services, 23.



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Predictive analytics: Using analytics in the service of vulnerable citizens

The potential of predictive analytics is coming to the fore in the way that governments deliver human services.



Whenever we apply computer technology, operations research and statistics to interpret meaningful patterns in data, we are using analytics.

Data mining is a part of analytics and is used to analyze realtime and historical data for insights on how to approach the future. Another way the analytics can be used is for predictive modeling, root cause analysis, identifying correlated data, forecasting, running scenarios, pattern identification and alerts. The most advanced form of analytics can be used for process optimization and calculating risk scores.

In other words, advanced data analytics facilitates data-driven decision making. Most governments already have information they could use to identify people in need of assistance. It's what they do with the data that is changing.

The potential of advanced data analytics is coming to the fore in the way that governments deliver human services. Greater interagency coordination of services such as housing, mental health, child protection and addiction treatment becomes possible, bringing with it new insights and opportunities for innovation.

The benefits for citizens

In the human and social services field, predictive modeling is highly effective in assessing various risks by scoring their probability. With that information, investigators can focus valuable resources where adverse events are most likely to occur.

Protecting children

Research linking birth data to later risk of maltreatment has been influential in improving child protection practice. Researchers at the Center for Social Services Research at the University of California at Berkeley, for example, released a study in 2011 that tracked over two million children. They were able to identify specific factors at birth that were linked to higher rates of reported or substantiated abuse by the time a child reached age five.8 Furthermore, data analysis can be done to look into the reasons for kids who scored higher previously but were not abused due to changes in a range of factors. The results of

the analysis can then be used to reduce child maltreatment in the future.

Similarly, the California Child Welfare Indicators Project (CCWIP) provides an open-source database of customizable information on the state's entire child welfare system. Data can be filtered by year, county, age, ethnicity, gender, and placement type, among other categories. Child welfare agencies are thus increasingly able to identify in real time the children most at risk from being harmed — and to target their interventions accordingly. External data like social media can be integrated with cross departmental data, and events such as a parent's arrest or hospitalization, to send high alerts to the case worker prompting proactive intervention.

New Zealand is launching a predictive tool focused on those who need services, rather than those who provide them.9 SmartStart gives parents a customized timeline based on their personal profile. It provides tailored information about early childhood services, and establishes a newborn's future digital relationship with government. The service can also be used by professionals working with expectant mothers or new parents, but it's the parents who control which agencies have access to their information.

Preventing homelessness

Big data and predictive analytics are also supporting efforts to combat homelessness. CAMBA, a non-profit agency in New York, offers a prime example. 10

The agency takes an integrated approach to programs in education, youth development, family support, health, housing and legal services. In partnership with the City of New York, it has developed the innovative HOMEBASE program, which is premised on the concept that preventing homelessness is more effective — and less costly — than reversing it.

That means using data to identify those at relatively high risk of becoming homeless, and simultaneously to direct resources most efficiently. Among key risk factors are prior use of a shelter, moving more than four times within a 12-month period, being under age 28, or being a young single mother.

⁸ See E. Putnam-Hornstein and B Needell, "Predictors of child welfare contact between birth and age five: An examination of California's 2002 birth cohort" (PDF 236 KB), Children & Youth Services Review 33, no. 11 (2011): 2400-07.

⁹ New Zealand, Department of Internal Affairs, "SmartStart: The best start for parents and babies".

¹⁰The discussion of CAMBA is based on information from Forbes Insight, Digitizing Human Services: Field notes and forecasts from the front lines of government's technological transformation (2015), 27.

Proprietary software is used to map these factors and related data onto the widely available Google Maps interface, producing color-coded dots to show concentrations of people at the greatest risk for homelessness. Different colors represent factors such as a prior visit to housing court or to a shelter. Field workers can click on a dot to see family composition and other details, and then organize their caseload accordingly.

The benefits for service providers

Predictive analytics offers significant benefits to those who provide human services. Not least are vastly improved targeting of services and benefits — often resulting in greater job satisfaction for service providers — and significant savings to the public purse.

Preventing fraud

As an example, the United States Social Security Administration (SSA) has established a fraud prevention unit dedicated to building data analytics to help workers detect and avert scams. The approach involves applying analytics to determine common characteristics and meaningful patterns of fraud, based on data from past allegations and known cases of fraud. The predictive



The Los Angeles County **Department of Public Social Services** used predictive models to combat child care benefits **fraud**. It mapped out a network of participants and provides in order to see where any given small network fitted into larger networks. The visual display of central nodes revealed where participants were colluding in fraudulent activities.

tools increase the ability of the SSA to identify suspicious patterns of activity in disability claims and to prevent fraudulent applications from being processed.

Similarly, the Massachusetts health and human services department, MassHealth, is using predictive modeling to combat Medicaid fraud. In the first six months after the system was launched in May 2013, investigators recovered US\$2 million in improper payments and avoided paying hundreds of thousands of dollars in fraudulent claims.¹¹

Predicting service demand

These types of tools can also help agencies to identify where their resources will be needed in future. The Administration for Children's Services (ACS), for example, administers child welfare in New York City, but it had no method of developing a profile of the future foster care population or predicting the facilities and resources this population would need. With KPMG, it built a predictive model to support forecasting, planning and budgeting.

The modeling approach not only accounted for events while an individual was within the child welfare program but also developed child demographic characteristics. and then evaluated the extent to which these events and demographics could determine the probability of a child staying within or leaving the program.

The model can be re-run with updated data to refresh forecasts for the number and types of services and facility places needed over any given period. That means the ACS is better able to plan and budget, and therefore to negotiate with vendors and facilities. In other words, improved service planning leads to improved service responsiveness and efficiency.

Imperatives and challenges

Predictive analytics is an exciting field, but it is not without challenges and potential limitations. It is important to be aware that predictive models generate probabilities. not facts. The undoubted power of such analytical tools may encourage heightened responsiveness from service providers, when appropriately targeted responsiveness is the goal.

The sensitivity of the data to be harnessed can be an issue as well. Interagency cooperation is essential to overcome restrictions to data access that could hinder the successful application of analytics.

¹¹ Stephanie Kanowitz, "Social Security to step up fraud detection with predictive analytics," GCN magazine, 22 April 2014.

What comes first? Robust data and analytics (D&A) requires cooperation among involved parties across departments and at every stage of the process. But recent research by KPMG has shown that organizations around the world still need to build trust in their D&A — 60 percent of them say they are not very confident in their D&A insights. 12 Decisions that are based on inaccurate predictions will quickly erode the confidence not only of frontline workers but also of the decision makers themselves.

Because predictive models are built on historical events (such as known fraud cases), they forecast accurately only when scoring new data that contains similar relationships to those in previous data. As patterns of behavior change, predictive models must be reprogrammed with examples of the new behavior, or else they quickly become outdated and can no longer make accurate predictions.

Building trust in analytics

Data collection, interpretation and sharing clearly stands or falls on the quality of the information gathered — and on determining the most appropriate response to the results. It's evident that a genuinely transformative use of predictive analytics depends on the people making datadriven decisions, but most individuals find the operation of algorithms and models too opaque to verify — we don't know how they work — and that complexity can create a trust gap.

KPMG defines four 'anchors of trust' that must underpin the successful application of analytics: quality, effectiveness, integrity and resilience. To strengthen those anchors, decision makers must take a systematic approach to managing the D&A lifecycle: from data gathering, through analysis and modeling, and ultimately to service delivery and performance measurement. Trusted, high-quality processes and timely, effective responses are key to using data in the service of the citizen.

The four anchors of trusted analytics:

- 1. Quality. Are the data and analytical models good enough? How well do service agencies understand the role of quality in developing and managing tools, data and analytics?
- 2. Effectiveness. Do the analytics work as intended? Can agencies determine the accuracy and utility of the outputs?
- **3. Integrity.** Does the use of data and analytics follow regulations and ethical principles?
- 4. Resilience. Are long-term operations optimized? How well are good governance and securtiy being managed throughout the analytics lifecycle?

¹² KPMG International Cooperative, "Building Trust in Analytics: Breaking the Cycle of Mistrust in D&A", 2016.

Digital transformation: Lessons to transform human service delivery

In an astute observation that applies to governments worldwide, a Canadian public service advisory committee pointed out that a digital population cannot be well served by an analog government.13

Without a doubt, there are valuable opportunities for integrating and digitizing service delivery, but how do governments achieve transformation? And once they do so, how do they maintain it? How do agencies keep their service delivery up to date, effective and accessible? Above all, how can service providers keep the citizen's perspective front and center?

Achieving digital transformation

Making big changes in a big organization — within a ministry or across agencies — can be a formidable task, but pragmatic lessons can be drawn from the numerous agencies that have already transformed the way they do things.14



In 2020, case officers, physicians, homecare nurses and others must be able to exchange relevant **information** about individuals in a secure, easy and legal manner. This will mean faster and improved case processing for the individual citizen, as well as more cohesive treatment pathways within the service system.

> **Danish Government** Digital Welfare

Start with a vision

Transformation starts with a vision and from the top. It's vital to define mutually agreed goals that have explicit and ongoing support from senior levels. That means focusing on the desired results first, rather than getting sidetracked by new technological possibilities. Automation and technology are merely supports for workforce efficiency, not ends in themselves.

A business case must be made in order to articulate the benefits of interagency cooperation and the nature of any data to be shared. As well, a clearly understood governance model should be developed so that everyone involved knows who makes, reviews or approves decisions.

Denmark, for example, has published a Strategy for Digital Welfare (2013-2020) that lays out seven areas of focus — such as welfare technology in nursing and care, and new digital pathways in case processing — and specific objectives to be achieved within those areas.15

Be collaborative and creative

Genuinely transforming how the citizen experiences services requires far greater interagency cooperation than has traditionally been exercised, and developing a collaborative environment takes collaborative thinking. An interagency working group with senior-level support should be established to promote and manage the integration of departments and services.

Achieving integration also takes creativity, but models of shared service delivery already exist. It's often more effective to study successful examples and then adapt them than it is to start from scratch.

The State of Idaho has taken a close look at an innovative jobs training program developed in the City of Brooklyn, and tailored it to a far more widely dispersed population and an education system with far smaller schools.

The Idaho PTECH Network (Pathways To Early Career High School) pilot program uses technology to link the capabilities and interests of students, education departments and private employers.

¹³ Government of Canada, Seventh Report of the Prime Minister's Advisory Committee on the Public Service, March 2013.

¹⁴ Much of the following discussion on achieving and maintaining transformation is based on the helpful insights found in Forbes Insight, Digitizing Human Services: Field notes and forecasts from the front lines of government's technological transformation (2015), 41–45.

¹⁵ Danish Government, Digital Welfare: Empowerment, Flexibility and Efficiency, September 2013.



Municipalities like Montgomery County, Maryland, and states like Alaska are building technology overlays to create what for now can provide a vastly more efficient and effective technology chassis.

Forbes Insight

Digitzing Human Services

At the same time, agencies should not be afraid to break the mold. If the rationale for taking or rejecting a particular approach or process is "because we've always/never done it that way", it may be time to find new efficiencies.

Keep it secure

In some instances private providers are stepping into areas that many consider to be a core government responsibility, such as child protection. 16 This can raise ethical issues about the ownership and use of sensitive information, but it also reflects what can occur in the absence of government action.

In an ever more closely connected world, it's essential to determine the legislation, regulations and confidentiality requirements involved in data collection and sharing. Data security should be incorporated into all modernization initiatives, and staff should be trained to understand when information sharing is mandated, permissible or prohibited. This is not only legally and ethically necessary but can also help to overcome any reluctance to cooperate.

Take it one step at a time

It takes time to migrate long-established processes to an integrated, digitized human services delivery model that's truly centered on the citizen. Rather than attempting to do everything at once, it makes sense to start in either a single service area or a single aspect of several services. The public sector is rightfully moving to a more nimble and agile approach to transformation, underpinned by a clear roadmap for reaching the desired end state.

Developing a proof of concept in one service area can produce lessons for other areas. California, for example, has started with a proof of concept in the field of foster care. Lessons learned there may well inform other child welfare

Another approach is to develop a technological overlay to integrate an aspect of services across sectors, working around the limitations of legacy infrastructure. Possibilities include using middleware to manage a common client index across various government agencies, as New York City has done.17

Maintaining digital transformation

Achieving transformation is one thing; maintaining it is another. An effective digital transformation strategy has to take a long-term approach to ensure that change is manageable and that systems do not become unwieldy or obsolete.

Remember the citizen

When processes are re-engineered, it's important to think behaviorally. In what context will clients have to interact with an app? Is a web interface sufficiently intuitive?

Ensuring that a delivery channel is adopted might also involve providing supports to citizens who are reluctant or unable to use digital tools, such as offering training in how to use a digital tablet to elderly people in their own homes. 18 Such human-focused measures can dramatically improve the uptake and effectiveness of a new service.

¹⁶ HubCare, for example, is a privately run online portal used by more than 1,500 Australian childcare centers to manage enrolments and attendance. HubCare is exploring data analytics techniques to improve early intervention for children at risk. See Hannah Francis, "World-first technology to help protect children from abuse", The Age, September 17, 2014.

¹⁷ Forbes Insight, Digitizing Human Services, 37.

¹⁸ UK, Local Government Association, Transforming Local Public Services Using Technology and Digital Tools and Approaches June 2014 (PDF 465 KB)

A new service via a digital channel needs to be marketed as well, so that citizens trust it to handle their data securely and believe that using the service benefits them — rather than just saving the government money.

Keep it workable

Sometimes, simple is best. Data analytics can be dazzling, but some improvements merely require ways to put data into the right hands. Predictive technologies may not be possible, or even necessary, as a first step.

It's also crucial to remember the people who deliver services. Do providers have the tools they need? Have they received appropriate training? Is the new system overwhelmingly complex or intimidating?

Service providers need practical supports. The United States has developed FedRAMP, an approved list of federally certified technology tools, and DigitalGov University, an online community that enables government officials to share their knowledge about using technology effectively.

Choose the right metrics

Digital transformation also involves ongoing performance evaluation. It's a matter of choosing key performance indicators selectively and then tracking performance against them automatically and continuously.

Good metrics consider the citizens who receive services. Did they wait a long time? Did they have to give the same information multiple times? Can they get access to their own records?

Don't stand still

Digital technologies emerge quickly. A successful transformation strategy includes a plan for constantly learning about promising technologies and for testing them quickly to determine whether and how they might be advantageous.

Much of the private sector, for example, is taking steps to reduce its IT footprint — the physical space that hardware takes up or the memory that software uses — for greater efficiency. Government must do the same. What services might be delivered via apps? Could biometrics help security? How might cloud computing eliminate duplication?

Lewes District Council in Britain is using cloud-based collaboration software to work across staff, partners and the public. The tool allows professionals from different organizations working on the same case to capture and share information in real time, in a highly secure, cloudbased environment.

More fundamentally, data is useful only as long as it is continuously updated. In particular, the predictive power of analytics is lost without current, reliable data.

Human lessons

A pragmatic approach to digital transformation must consider several dimensions, and those dimensions are undergoing profound changes.

The type of data to be used is shifting from historical to predictive. Processes and record keeping are moving from paper based to digital, and often mobile, technologies. Metrics are focusing on outcomes rather than processes: determining how many clients were able to avoid using a housing shelter, for example, rather than how many used the shelter on a given night.

Ultimately, dimensions such as process design and metrics should be based on human lessons. When public employees are able to use technology to solve their tasks more quickly and easily, it frees resources for service delivery. When those employees function within a human services ecosystem rather than within silos, they can collaborate with and learn from other agencies.

And at the heart of transformation, of course, is the experience of the citizen. Returning to the example of the Danish digital strategy provides the overarching goal of transformation in a nutshell: to provide human services in collaboration with citizens rather than to citizens.

Conclusion: 5 key steps for successful transformation

Over the preceding pages, we have explored some key trends and technology applications in human and social services that hint strongly at the potential to transform the way governments deliver these services. The early results of digital initiatives that leverage mobile apps and predictive analytics demonstrate that significant benefits can be gained for both the service provider and its citizens.

However, the examples presented also reveal the need for governments to adapt their approach to service design and delivery to reap the benefits. For example, governments may need to embrace behavioral science techniques to ensure that service interfaces gain user trust acceptance. Similarly, governments must strengthen each stage of their data lifecycles, including data gathering, sharing and analysis, to enable optimal decision-making and measurement.

The pioneering efforts of various agencies also highlight several broad themes to guide government leaders in both introducing digital innovation, and sustaining it. These lessons include building a consistent, organization-wide, program vision, increasing inter-agency collaboration, and adopting a mindset oriented around the needs of the service recipient.

Recognizing that each of these objectives represents significant challenges for traditionally-managed and organized government organizations, we offer a number of best practices to help governments step away from the old, compartmentalized modes and take a strategic approach to reshaping the delivery of human services.19

By taking the following steps, and rethinking their businessas-usual approach — prior to incorporating digital technology solutions — government can inject significant innovation, quality improvement and efficiency in the delivery of healthcare, crisis services, senior services, financial aid or any other area of human and social services. While the near-term implementation challenges are sizable, the long-term benefits are vast as governments strive to costeffectively anticipate and respond to the service demands of their citizens.

Integrate services and service delivery across departments and agencies. In order to break down silos, governments have to secure commitment at senior levels, define the goals, and develop appropriate processes and ways to evaluate progress.

and not-for-profit organizations. Today, innovation is coming from outside government: from academic institutions, notfor-profits, and private businesses. Collaborating with these sectors will provide needed expertise and uncover best practices.

Partner with

private-sector

a wide array of related services. Broadening citizen access is a key aspect of enhancing service delivery, through unified, easy-to-use client pathways that keep the user experience in focus.

Create a userfriendly portal to

Tailor solutions to specific community **needs.** To avoid program overlaps, inefficient investment and ill-fitting outcomes, place-based planning must drive the way governments deliver services.

that focus on meaningful outcomes for the consumer rather than the agency. Performance indicators need to measure the impact of services on human experience, not simply the program outputs.

Develop metrics

¹⁹These insights are based in part on findings outlined in KPMG International, *The Integration Imperative: Reshaping the* delivery of human and social services (October 2013), and on Forbes Insight, Digitizing Human Services.

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KPMG is committed to the human and social services sector and is proud of its track record advising government and the public sector on the transformation, design, implementation, and operations of programs meant to serve the world's most vulnerable populations. We work with a range of people who are vulnerable, disadvantaged, or have complex needs, across a range of service systems including:

- Children's services
- Social and public housing
- Domestic and family violence services

- Adult social care
- Aged care
- Income support services
- Employment services
- Food and nutritional services
- Not-for-profit sector

KPMG's Global Human and Social Services Network brings together a range of diverse capabilities and experience to provide our clients with a truly global experience.

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