



Digital government: how far should you go and what outcomes can you expect?

Advice on how to accelerate transformation while driving citizen satisfaction

Introduction

The vision of a data and digitally enabled central government truly captures the imagination. It has the potential to solve some of our most pressing policy challenges and to transform the speed and quality of service delivery while driving out cost.

It would be easy for the Government's digital strategy to become deprioritised given the workload Brexit is placing on the Civil Service. However, if the UK is to strengthen its economic position on the world-stage, Government must gain the agility to respond rapidly to changing priorities and opportunities. It is gratifying, therefore, to see that the latest Government Transformation Strategy outlines the critical role of data in delivering effective, efficient services, and indeed how digital adoption and more effective use of data will be rolled out across departments. Only by doing this will the nation gain a powerful competitive advantage and achieve sustained economic success and efficient government in the Brexit era.



This paper demonstrates how embracing data powered digitalisation can transform policy accuracy, and the speed and cost of service delivery to satisfy citizens.

Why believe the opinions of SAS?

We are the people who have helped to generate billions of pounds of additional revenue for HMRC.

We help DWP generate evidence-based insights to make better decisions in complex policy areas ranging from pensioner income to benefit expenditure. NHS England uses our services to model prevention strategies at the population health level. We're also the people who helped the British Army transform resource planning to drive vital efficiencies.

So imagine...

- » Being able to gauge public reactions to new policies – and adapt them prior to launch to improve adoption rates and citizen satisfaction
- » Being able to accurately predict housing demand and outcomes from streamlining the planning system in various ways
- » Being able to forecast accurately local economic growth to budget more effectively for infrastructure growth and social services
- » Model the impacts of national and international economic fluctuations, population change and environmental legislation to be able to take next best actions on smart transport infrastructure investment

You can achieve all this – and much more, with SAS.



Full steam ahead with digital government

But where is the final destination?

Government has set an ambitious timeline to achieve all major digital transformation projects, as set out in the 'Government Major Projects Portfolio', by 2020. Consequently, the Government Digital Service must find new capabilities and/or partners that will help to accelerate digitalisation through fundamental changes to technology, processes and cultures.

Services such as tax returns, car tax and passport renewals, as well as some elements of welfare provision have been available online for some time. But simply transporting paper-based processes online won't deliver deep enough efficiency or transformation. If data cannot be shared with other departments in the way citizens understand and expect, Government will be stymied in how it can use data-driven insights and the value it can derive from them. It will be unable to keep pace with citizens' expectations, particularly those of Millennials and the up-coming Generation Z who are 'digital natives' and who are the customers of the future.

How far should digitalisation go?

Clearly digitalisation will significantly cut the cost of delivering services. However, given the demographic changes on the horizon and the next generation's appetite for digital, the digitalisation programme can't end once government has arrived at a perceived final destination - because there is no such thing. Instead, plans must be in place, tools activated and mind sets opened to allow the notion of continuous digital evolution to be fully realised.

Evidence-based policy development

As well as improving service efficiency and the citizen 'experience', digitalisation will also allow departments to develop policy faster. How so? Because as new channels of communication open up, Government will be able to better utilise data - eradicating siloes by pooling open and incoming data - analysing it in near real time to respond faster and more effectively to public opinion.

This will improve citizen engagement with faster, more frequent and more inclusive public consultations - creating policy iteratively, taking feedback online and assessing public sentiment through social media. In fact, social media, above any other form of digital communication will allow government departments to leverage some incredibly powerful applications, including:

- » Improving customer service by maintaining quality dialogue with external audiences
- » Helping departments and agencies to better profile and understand their audiences
- » Saving Government time and money in how it engages by 'going to where their audiences live online'

SAS Opinion

We believe that while digitalisation offers Government the ability to serve more people at a reduced cost, what is truly revolutionary is the capability to develop more intimate knowledge of citizens' needs. Doing so will enable Government to design highly personalised services that re-shape the way it works and transform citizen satisfaction. What's vitally important in terms of driving value is that the data gathered and the insights gained from that data need to be shared across departments, third-parties (where appropriate) and decision-makers in order to develop policy and roll out frontline services concurrently.

Greater collaboration, leading to the creation of joined-up services can be enabled by working with technology partners, such as SAS, who use open APIs. What this means is that much richer insights can be gained from important line of business applications and fed back into policy and services. It's a highly effective and cost-efficient way to leverage the power of the incredible sources of data residing in Government systems.

So how can Government accelerate digital transformation? The answer lies with data.

Positive outcomes for citizens and departments

How can Government accelerate the pace of change and the depth of transformation?

For the answers about how to move faster and further, government departments should closely study the commercial sectors that have undergone radical digitalisation transformations. Emulating their strategies - which rely heavily on building actionable insights from diverse new sources of data - will help them to create the right services, delivered in the right (online) way, to produce the desired or expected outcomes.

Take the travel industry as an example. Once the preserve of the High Street - where customers had to queue to be served by an agent, fill in forms and wait a couple of hours to complete their booking - it is now almost entirely an online industry.

Transforming the customer experience and revenues

The travel industry has experienced such a massive digital shift over the past years because it has been able to deploy highly sophisticated data analytics in order to offer incredibly high levels of personalisation. By collecting a plethora of information on browsing habits, buyer behaviour, destination and seasonality preferences, satisfaction ratings and much more, the travel industry has been able to carefully craft extraordinarily personalised online experiences and travel offers for every individual customer. And not just that, it can craft those offers in mere seconds, utterly transforming the customer experience and creating a surge in demand for self-service, online travel purchasing.

Similar transformations have occurred, nearly as rapidly, in the banking and retail industries. Whether it is mortgage approvals or personal shopping advice, the buyer can fulfil all their needs online - and that's all thanks to sophisticated real-time analytics engines uncovering complex data relationships and translating them into actionable insights that have the potential to deliver more profit.

There are some excellent lessons to be learned from the commercial sector's experience that Government departments can use to understand how to make the current level of citizen transactions more efficient and more importantly, much more cost-effective.

Safeguarding against fraud

However, digitalisation isn't solely about improving citizen or customer satisfaction. It also offers organisations solutions to challenges that can threaten their very existence. In the case of banking, SAS real-time analytics are being deployed to protect all HSBC's credit card transactions against fraud by analysing millions of rows of transactional data every second. Imagine the potential impact on fraud detection for universal credit payments, such as child benefit, housing or disability, for example. Without such robust and instantaneous fraud prevention banks' losses will continue to sky rocket, risking their liquidity and eroding customer confidence.

How does this translate to the public sector?

Just as you need to tackle costs, Government needs smart ways to detect fraud and incorrect payments. SAS analytics can help to identify benefit and insider fraud as well as wrong payments to farmers, pensioners and mothers for childcare, as well as the avoidance of stamp duty, inheritance tax, court fines and other revenues.

Simplifying service use while driving up revenues

HMRC is an excellent example of a government department putting services online. By doing so they have streamlined processes, improved calculation speeds and been able to analyse data rapidly to ensure that the right amount of tax is deducted, or repaid. All of which makes life easier for citizens. But it's also a powerful case study on how analytics can rapidly uncover potential tax avoidance and underpayments in order to boost the national tax yield. Several years ago, Government set aside £917 million to detect criminal activity, which it has achieved with staggering success. By bringing multiple sources of internal and external data together in one repository, and deploying SAS analytics to uncover hidden relationships, HMRC has been able to detect non-compliance more cost effectively and rapidly. The target was an additional £7 billion in revenue.

Driving service efficiencies

With a growing population to service, it is essential that Government finds new ways to drive efficiencies. Knowing which online services can be safely offered to citizens is a difficult question to answer. Who, for instance, is a suitable candidate to receive welfare payments online and who must be regularly seen? What levels of authentication are required? Clearly, there is an important role here for analytics in assessing risk. By doing so, departments will be able to target appropriate citizens with the right type of service and to take the next best decision, guiding public servants to take appropriate actions for each service user.

In essence, this is data-driven decision-making in the field. But similar analytic techniques can be deployed to develop policy or to encourage service users to change their behaviours in required and necessary ways. This is exemplified by the success HMRC has achieved in getting citizens to complete tax returns online.



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Government has a wealth of data that it can take advantage of in order to accelerate channel shift from human interactions and paper processes to online service provision. Yet it can only do so if it embraces a fully integrated analytics platform that is flexible enough to deliver insights that can both extend government capabilities and protect operations and budgets. Failure to do so will mean government departments are unable to truly understand their audiences and protect the efficacy of their outward facing services. This in turn could result in some very negative outcomes such as:

- » Citizens feeling that their attempts at engaging via, for example, social media are not resulting in positive outcomes for them
- » Digital government stalling at simple online service provision
- » Limited process transformation where old and inefficient processes are simply transferred to digital channels

Communication channel change: a risky business?

Mitigating the risks from digitalisation

The Government's door is wide open to all the powerful benefits digitalisation can deliver, but no transformation comes without risk. So what are those potentially negative reactions to channel shift and how can they be mitigated?

Risk 1. Costs outweigh results

Making digitalisation work - i.e. enabling it to deliver powerful transformations for government departments and citizens alike - can only be deemed successful as long as the cost of understanding the data and insights, and making the right decisions does not overshadow the outcomes delivered.

Risk 2. Analytic engines deliver high-level insights

High level insights that are unable to go much further than telling responsible officers 'who' uses online services and apps, 'when', 'where' and to do 'what', will not deliver the kind of transformational insights required to keep digitalisation delivering value. Government should be careful about relying purely on solutions that can only deliver visualisations of current situations, rather than those that can predict service usage, outcomes and deliver a robust understanding of why citizens are behaving the way they are online, and how to change that behaviour.

Finding a partner you can trust to take you further

SAS has been working with government departments such as DWP, Ministry of Justice and HMRC and others for many years, helping it to plan services, forecast demand, detect real-time fraud and model financial outcomes. It also works with NHS England to help them create more value from services aimed at improving population health. And it is this scalability and repeatability that will save the Government millions and enable it to become the agile, digitally enabled organisation it needs to be, if it is to adapt to the pace of change around it.

With a highly intelligent capability underpinning its advanced, real-time analytics (or decision-making), SAS can help the UK Government take advantage of more sources of data - from social media sentiment to patterns of service consumption and open data (the list is almost endless) - to create richer pictures than anyone else. With clean, up-to-the-minute, compliant data, SAS uses multiple algorithms to rigorously test hypotheses (real-world scenarios, or possible new services) and uncover the most meaningful possible insight across billions of rows of data from both structured and unstructured data sources.

We can certainly help government departments derive better, deeper understandings of user behaviour, for instance, helping to assess the risks involved in providing new services to certain population segments - and how to change spending behaviour to improve the lives of our citizens.

In conclusion

SAS is very well placed to enhance the Government's digital programme still further, delivering deep process transformations while driving cost out and de-risking decisions all the way. Our capabilities have already been proven many times over in real world projects. Trusted across the globe by both public and private sector organisations, SAS can help government to accelerate the pace of change, mitigate the risks involved with digital transformation and radically improve the quality of decisions and desired outcomes for every department, while smoothly navigating the questions of data compliance and security.

To truly transform the UK government

Contact SAS to understand what we're doing for public sector organisations, and how Government can benefit from a strategic approach to data management and analytics capability.



To learn more go to www.sas.com/uk/public_sector

