

Developing a data mindset

Opportunities for improving
the UK's government data
and analytics capability



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CONTEXT

TransUnion recently contributed to the government's white paper on the use of data and analytics to counter fraud. Given that fraud costs the government an estimated £31bn to £49bn every year, it's no surprise this issue is at the forefront of the political agenda, and the consultation on this topic is intended to ensure that government continues to work with the public and private sector to build public confidence in the use of data and address outstanding issues and challenges, such as those associated with data quality, access and analytical capability.

Here in our contribution, we outline the importance of developing and embedding a data mindset for preventing fraud, highlight the benefits of public and private sector partnerships and share our thoughts on what lies ahead.

BACKGROUND

A feature of both public and private sector organisations today is their reliance on quality data and the ability to create actionable insights from them. As one of the UK's leading credit reference agencies, TransUnion (formerly Callcredit), has at its heart a keen focus on the power that data and collaboration can bring as **Satrajit 'Satty' Saha, CEO of TransUnion in the UK explains:**

"We're in the middle of an explosion of new data sources, led by the digital revolution. This together with exciting new analytical techniques and computer power enables us to do more good with data. Not only can we further reduce fraud to bring society benefits, but we can be part of the creation of a fairer and more transparent ecosystem to ensure that both the wider economy and consumers can benefit from the enhanced level of data and insight we have available today."

As a global risk and information solutions provider, with a presence in over 30 countries, TransUnion has worked with governments around the globe on initiatives ranging from healthcare to financial inclusion, bringing its expertise in data and analytics and its deep-seated philosophy of 'Information for Good' to the public sector, to support the creation of enhanced public services.

With an innovation-focused data mindset – working within the frameworks laid out to protect data privacy and security of consumer data – government and private sector collaboration in technology development can help ensure that public services can take advantage of the latest thinking and technology and utilise lessons learned in the private sector to deliver a public service that puts the consumer first, overcomes challenges to reduce fraud, and creates a responsive, responsible infrastructure for a strong nation.

Data mindset: what it means and how to use it

The shift away from purely qualitative evidence for creating services and policy is a positive step. Not only that, but the introduction of data-dependent services that can react in near real-time to changing individual or organisational circumstances is crucial to a 21st century service provider – public or private sector.

The professionalisation of data science, the development of a data mindset, and the acceptance of the benefit it brings is no longer a niche interest. The UK Government (HMG) has made clear steps towards this goal, which we welcome. TransUnion sits on the data sharing and data analytics advisory panel and we have provided support and insight on the creation of good practice guidance to implementing data analytics to counter fraud in government. We look towards initiatives such as the Cabinet Office's development of the data-led counter fraud strategy and profession as key reference points to support this.

By this term – data mindset – we mean an organisational, all levels, recognition of the value of data, along with the drive to use it and the policies and structure in place to make sure results deliver on a strategic objective. It means a focus on innovation, educating and upskilling, and the development of use cases (such as countering fraud) that have long been desired but previously challenging to execute. It also means compliance with all applicable laws and regulations, robust information security practices and, as TransUnion sees it, being a responsible custodian of data.

Introducing a data mindset, and investing in the tools and processes to enable it to bear fruit, when done responsibly can be used not solely to displace human capital, but to drive more effective use of that precious resource. Robotics and automation, which are now reasonably widespread in the private sector to replace manual intervention are only effectively deployed based on better data and enriched insights. Analytics supports that process enrichment.

TransUnion has worked alone and in partnerships to develop products, in both the public and private sector, based on smart data techniques like machine learning. A data mindset, perhaps more than the availability of the technology, is the real catalyst for these projects and we are greatly encouraged to see its continuing evolution among our public-sector counterparts.



Quality raw materials lead to quality results

Developing a mature data-focused organisation means not only ensuring the team's skills and the technological infrastructure is in place, but that there is serious work being done on

implementing data standards and data dictionaries to clarify and align the meaning of data. Sourcing top quality, clean data and using it for positive purposes is of key concern.

Key focal points in this discussion are the use of open source and shared data sets, and the mitigation of the risks that come from the highly regulated practice of sharing data.

Sharing

The National Data Strategy is designed to unlock the power of data in the UK economy and government, with the potential to create a truly world-leading data ethics and strategy framework.

HMG has shown progress and leadership in data sharing through its enactment of the Digital Economy Act 2017 as a mechanism to safely share data. The Act is closely aligned to the objectives of the 2002 Cabinet Office report on privacy and data sharing which set out, "to improve public services through better use of data while safeguarding citizens' privacy." In addition, HMG encourages departments to "release operational data in electronic open formats that encourage reuse and develop new applications" through its Open Data Agenda.

In TransUnion's view, the government's data sharing practices show great potential, though have not yet gathered critical momentum to deliver on what it needs to be truly classed as holistically effective. However, numerous data exchange projects between public and private can be used as evidence for the success of collaboration. Projects like the one TransUnion participated in to introduce risk based verification within housing benefit administered by local authorities – which delivered on its aim of improving the time taken to process the majority of low-risk claims whilst reducing overall error and fraud in the administration of housing and council tax benefit, as well as improving customer journeys for claimants – can be seen as verification of the data-led approach in public services showing serious results, as well as other projects where fraud prevention organisations have led the charge in sharing data across sectors.

With the ground laid for collaboration, focus will soon turn to more ambitious projects to create value from disparate data. Private sector organisations such as ours can provide a valuable service in interpreting the data we have and the value/proof points it helps public sector organisations create. In fraud alone – specifically to fight money laundering or adhere to Joint Money Laundering Steering Group guidance – using collaboration and shared data to create machine learning (ML) models to predict fraud through enhanced analytics can offer the public sector a leap forward in capability.

Knowledge-sharing across sectors can bring clear two-way benefits, and will assist in the development of the government's Digital First servicing of citizens, by taking learnings from the private sector where many organisations are digital-only.

Risks

Private sector companies can provide insight on collaborative data assignments to government bodies in areas of compliance, due to their experience in aligning projects using shared resources to regulations and standards, and adoption of changes to that landscape – GDPR being a prime example.

For example, TransUnion is an FCA-regulated business and we operate under a range of legislation including the GDPR, the Data Protection Act 2018 and the Consumer Credit Act 1974, as well as the FCA's rules. Collaborating with counterparts in the public sector who bring deep expertise in navigating and executing nation-level projects ensures a full spectrum of skills and capabilities can be brought to bear. Organisations such as TransUnion can use their experience to augment public sector organisations' existing skills to ensure the smooth, effective delivery of public sector projects – as well as to promote innovation at an arm's length to public data bodies, enabling government to benefit by proxy.

It is by no means a one-way street – private sector organisations also have a lot to learn from the public sector. TransUnion commends the government's leadership on data regulation and guidance on best practice use – particularly its proactivity in creating the Data Ethics Framework in 2018, active membership in the EU's eIDAS knowledge and learning programme, as well as the recent appointment of the first national data guardian for health and social care. Projects set up under structured guidance have already shown promise. We see that creating a forum within a defined CUG (closed user group with defined sharing purposes) can lead to great benefits – a key reference point is the Cabinet Office-led National Fraud Initiative, an example of where specified anti-fraud organisations could have a role to play in supporting public sector on shared data projects.



In the right mindset – now **put it to work**

We would like to close on actionable ways to enhance data analytical capability extracting greater value from the data that can be accessed. Across the broad spectrum of public service, there are potential avenues for advancement – our particular concern is helping improve fraud analysis and prevention. TransUnion research with private sector fraud prevention leaders carried out in May 2018 shows us that 90% of them pinpointed implementing fraud prevention technology as a priority, up from 76% the previous year.

Artificial intelligence (45%), machine learning (37%) and biometric screening techniques (37%) are being targeted as the top fraud prevention solutions over the next three years, whilst 90% said they would introduce a form of ID verification by June 2019. Noting that data techniques can often be used to evolve or build existing capabilities, as well as develop new ones, **TransUnion's Managing Director of Fraud & ID John Cannon points out:**

“These figures reaffirm the importance of the balance between more traditional techniques and emerging tools. Whilst organisations – private or public – need to keep up with the latest developments, such as the forensic profiling of device, email and mobile attributes, these should serve to enhance existing verification techniques.”

One way of the government taking the lessons of the private sector, in this area alone, is the creation of a fraud hub, or sandbox. A sandbox is a technical environment where ideas and solutions are tested before being trialled publicly – a safe space so that HMG can quickly test and learn with data and analytics from disparate sources in a compliant way. Syndicated data services and open source platforms already exist, and are utilised by TransUnion in multiple geographies, so with combined public and private skillsets the toolkit is there to deliver it in a cost-efficient manner. This could allow for safe experimentation and testing to create machine learning models to predict fraud through enhanced analytics.

Future focus

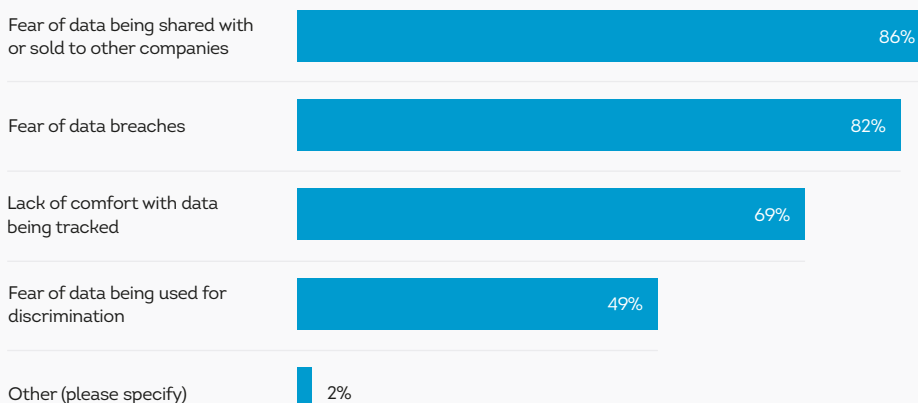
While the future of capability in creating a data mindset culture and delivering data-driven services is not in doubt, and machine learning specialists are in particular demand, the future of data in public and private sector will be dominated by the response to key human concerns. Chief among these are data privacy, ethical and security considerations, bias in AI-derived decisions, future legislation and political changes and consumer education.

One area where these factors come into sharp focus is in the UK's new Open Banking initiative, which aims to provide consumers with a trusted route to realise the power of their own financial data. TransUnion launched its own end-to-end Open Banking service earlier this year, specifically designed to assess income and expenditure, affordability and creditworthiness and, alongside this, researched attitudes amongst UK citizens and the financial services sector toward the implementation of this new technology.

TransUnion's white paper, 'The Evolution of Open Banking' found that the main barriers to consumer adoption are fear of data being shared or sold to other companies (86%) and fear of data breaches (82%).

Such fears over data use among consumers could mean restrictions on data projects in public sector – a risk that can be mitigated with effective public education, training and upskilling.

WHAT RESERVATIONS DO YOU HAVE ABOUT PROVIDING REGULATED FINANCIAL SERVICES INSTITUTIONS WITH ACCESS TO YOUR BANK STATEMENT DATA?



Based on 1,371 consumers, aged 18+, who have been through a financial application process in the past six months

A commissioned study conducted by Forrester Consulting on behalf of TransUnion, November 2018.

Fig.6 from The Evolution of Open Banking: Adoption, Benefits and Consent.

Consumers are the most important stakeholder in any data-led process. No matter how developed the technical capability, how secure the data transit, analysis or storage is, how dedicated the team – **without a focus on delivering a true, honest and transparent benefit that empowers consumers then projects will fail.**

HMG is dedicated to finding new ways to use data to fight fraud. This thought paper demonstrates TransUnion is similarly focused on this and we look forward to the opportunity for ongoing future collaboration.





Why not get in touch to find out how we can help you improve your data and analytics capability with our solutions?

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