
INTELLIGENT DECISIONING IN GOVERNMENT
TRANSFORMATIONAL DECISION?
Making better decisions will drive operational efficiency, support fairness, and improve citizen outcomes.
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GOVERNMENT OF THE FUTURE

Governments make millions of vital decisions each day: These decisions can include determining the optimal allocation of departmental budgets, evaluating immediate responses to economic crime, national security and military threats and assessing citizen's eligibility for benefit and welfare payments.

As the sheer volume, complexity and velocity of decisions rises across government in today's challenging environment, all departments must seek more effective and efficient means to improve the throughput, accuracy, fairness and speed of those decisions. Now is the ideal time to take a different approach to decision-making in government. One that augments human decision-making and helps to build trust in automated decisions while ensuring each department enjoys optimal outcomes. One that uses data and analytics to drive fast, accurate decision-making.

This paper will show how government can incorporate AI-driven decisioning into existing business processes. This will help them overcome the barriers to digital transformation – i.e. certain inefficient manual processes, time-to-insight, and the inability to act fast – to innovate service delivery, drive efficiency and help build a better future.

> "The potential for AI and Machine Learning to deliver efficiencies in government will only be realised when these decision making engines are integrated with frontline operational systems. A flexible framework for operationalising and maintaining them is also required to sustain this value in the long term."
>
> **- Ray Greenwood, Domain Lead for AI and Machine Learning - SAS Australia and New Zealand**

WHAT DO CITIZENS AND ORGANISATIONS WANT?

Like any business they deal with, citizens and organisations have high expectations of their interactions with government, centred around three key experience requirements:

SIMPLICITY

Whether it's enquiring about their pension or applying for government support such as JobKeeper or Newstart, registering their car or negotiating a tax payment plan, citizens want the process to be painless and seamless – just as they receive from any digitally advanced business. However, the elderly and vulnerable also need to be considered, so government must strike a balance between keeping traditional interaction channels open and also providing the combined, personalised customer experiences that digital natives expect.

TRUST

Both as citizens and consumers, people need to have trust in the decisions that are made about them or affect them – and therefore understand the way their personal data is used. While the volume of decisions and the expectation of faster outcomes increases, rapidly made decisions, especially automated real-time decisions, must be auditable so that they can be shown to meet with internal data privacy mandates and legal regulations.

This level of transparency demonstrates government bodies' commitment on ethics, accountability and treating citizens fairly - building trust as they move to modern decisioning techniques. However, trust and transparency also come into play in non-citizen centric or transactional decisions, such as crime prevention, planning, energy infrastructure, housing, transport, the environment and logistics. The how's and why's must also be robust, explainable and made with attention to ethics.

SPEED

Quite simply, citizens and businesses want their interactions and transactions with government to be swift. They want to know whether they are eligible for benefits and be able to access them quickly. They want to pay their taxes with minimal effort, and where disputes occur, they want fast and accurate resolutions.

With AI supporting or driving many different kinds of decisions, there is an important opportunity for government departments to use decision outcome learnings over and over again. This repeatability, will help accelerate speed-to-outcome, highlighting anomalies, for example, cyber threats, fraudulent claims, tax evasion, sham marriages, identity theft, customs violations at our borders to name a few, that can be handed off to experienced analysts, investigators or case workers. This approach will deliver the speed citizens want, while making better use of experienced staff.

WHY TAKE A NEW APPROACH TO DECISION-MAKING?

We know that making decisions, or the process of decisioning, sits at the heart of every government department. With significant pressure to make better use of resources, certainly in the post-Covid era, it will become especially important to improve the efficacy and efficiency of decision-making in ways that ensure the right services are delivered in a timely fashion, and also increase collections, control cost and reduce risk.

Achieving this requires less reliance on manual processes and the ability to capitalise on the data generated from a growing number of government touchpoints, from service apps to IoT devices.

Making sense of this data, gaining insights and deploying those insights to generate decisions faster, using analytics and AI is precisely how government departments will derive the necessary efficiencies and quality outcomes, while increasing digitised decisioning.

READ MORE The AI ethics conundrum >

THE AI ETHICS CONUNDRUM

The debate around ethical AI is growing – particularly in automated decisions – grounded in concerns about introducing bias, protecting privacy or reinforcing systemic inequalities alongside maintaining the right to recourse.

We understand that government departments will want to deliver ethically sound decisions. We work with our customers in helping them address these issues in many ways, most notably through a set of guardrail principles known as FATE, meaning fairness, accountability, transparency and ethics. In addition, our decisioning solutions are not closed, black-box solutions, they are auditable and adaptable. This will be especially important for organisations, such as those in national security, public safety and military intelligence, where governance of the decisioning process will be critical, and must be auditable to support transparency and accountability. But how can you keep citizens' information safe? By anonymising data, citizens' trust and confidence increases, with the assurance that their personal information will be kept private and departments can meet regulatory requirements.

SUPPORTING ACCOUNTABILITY

Accountability to citizens and taxpayers is vital within government. The analytical processes, models and data that either support decisions or embed into workflows to make automated real-time decisions possible, should be governed by best practices. This helps your data science and analytics teams develop, adapt and deploy multiple models for decisioning and enables faster collaboration within your department or in a process supported by a built in governance framework.

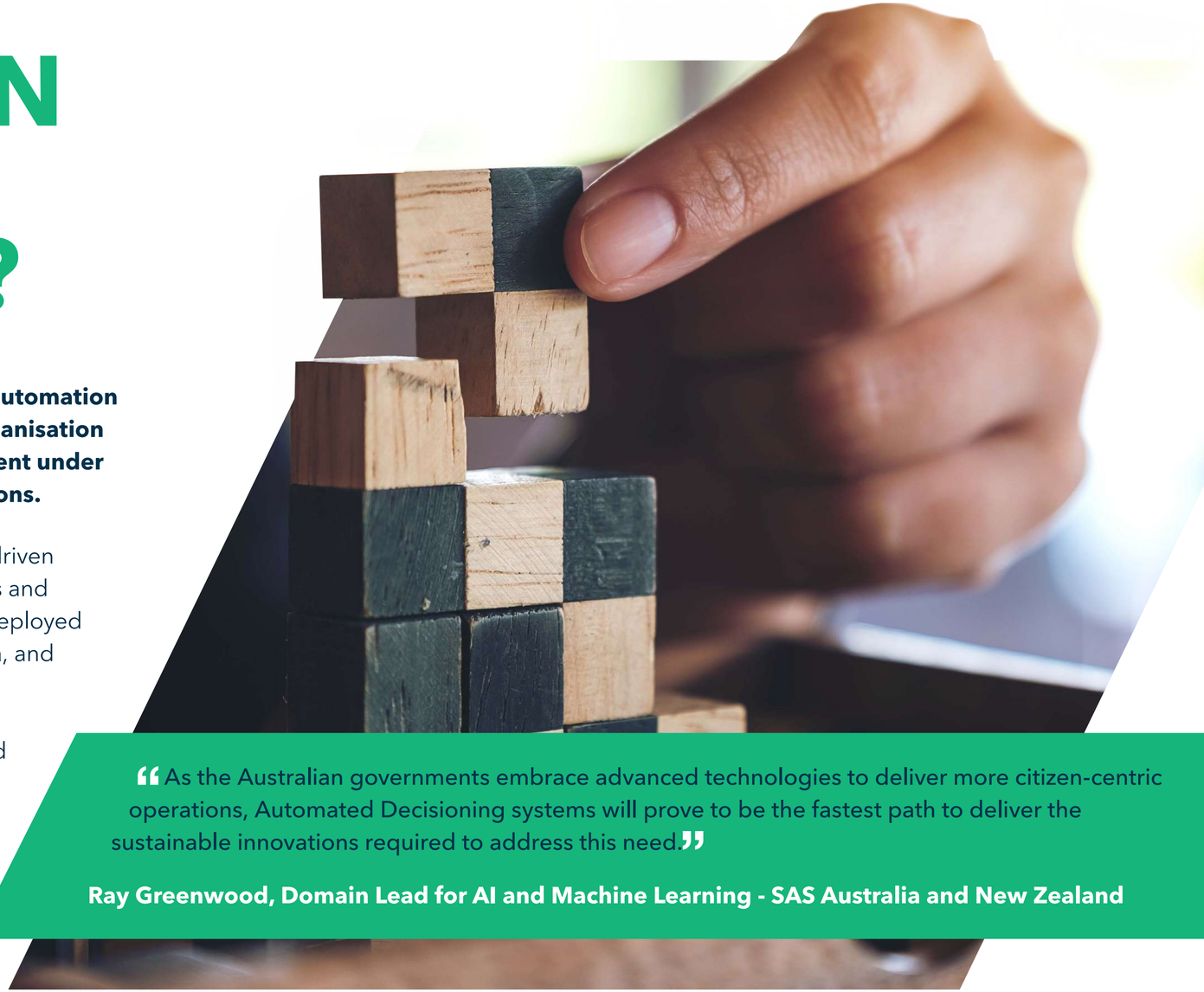
READ MORE What does it mean to be intelligent with decisioning? >

WHAT DOES IT MEAN TO BE INTELLIGENT WITH DECISIONING?

Delivering smart government services in the digital age is so much more than the automation of internal processes that result in greater efficiencies. Becoming an intelligent organisation requires much broader thinking: it's about uniting different areas of your department under a shared vision of continuous improvement, enabled by analytically derived decisions.

Intelligent decisioning is by far the most effective way of evolving into a truly data-driven organisation. Most government organisations have a rich ecosystem of applications and systems that hold all kinds of citizen information and data. Traditionally, these are deployed in service silos with little interchange between departments. By democratising data, and in turn democratising analytics performed on that data, decisions can be made holistically about citizens and businesses. Those insights can also be used to help departments improve every aspect of their organisation from risk analysis and fraud prevention to customer service.

One of the major benefits of intelligent decisioning is that it enables organisations to integrate real-time insights into their systems of action – for example, their web and mobile apps and their customer service systems. This helps reduce the delay between identifying an opportunity or risk and acting on it – enabling more responsive services that put citizens at the heart of operations.



"As the Australian governments embrace advanced technologies to deliver more citizen-centric operations, Automated Decisioning systems will prove to be the fastest path to deliver the sustainable innovations required to address this need."

Ray Greenwood, Domain Lead for AI and Machine Learning - SAS Australia and New Zealand

DRIVE TRANSFORMATION, DELIVER VALUE

The scope for transforming decision-making across government is immense. Whether we're talking about automating decisions in real-time or augmenting many operational and management decisions, the possibilities are almost endless, which in turn will deliver incredible ROI. Here is a taste of what's possible today.

AUGMENT YOUR PEOPLE'S DECISIONS

REDUCE REOFFENDING RATES

An efficient, integrated criminal justice application provides quick access to comprehensive offender information. Combining data from policing, corrections and justice organisations to gather behavioural insights helps to evaluate the likelihood of reoffending.

RESOURCE PLANNING AND BED MANAGEMENT IN RESPONSE TO COVID-19

The COVID-19 pandemic created intense pressure on health systems to ensure contingency plans were in place should a major outbreak occur. Analytics helps to provide reliable and timely insight to support effective primary case preparedness and planning, so that stakeholders can maximise resources to ensure strategic availability.

ACCELERATE THE INTELLIGENCE TO OPERATIONAL DECISION PROCESS AT DEFENCE ORGANISATIONS

The volume, variety and velocity of data facing investigations are increasing rapidly; information is usually of poor quality and held in disparate data stores. Intelligence and investigation management solutions support anyone from operational police officers to executive-level officials at local, state, national and cross-border agencies.

INTELLIGENT ROLE AND CANDIDATE MATCHING

Changes in government priorities can create skills vacuums and ultimately lead to an unbalanced workforce. Intelligence role and candidate matching and skills training support job seekers getting back to work after the unemployment surge brought on by COVID-19.

READ MORE Automate your decisions >

AUTOMATE YOUR REAL-TIME, TRANSACTIONAL DECISIONS

DETECT INSIDER THREATS AT DEFENCE AND NATIONAL SECURITY ORGANISATIONS

Data lifecycles supported by artificial intelligence enable organisations to detect behaviours, identify trends simultaneously from all data sources and automatically calculate risk indicators. With this intelligence, stakeholders can remain alert to threats and predict strategic changes, eliminating dangerous surprises.

ENHANCE THE INTEGRITY OF POST-COVID-19 SUPPORT AND BENEFITS PROGRAMS

With millions of people eligible to pay tax and receive benefits, fraud is a major challenge for programs like JobKeeper. Intelligent decisioning provides the opportunity to build risk rules and combine them with analytical models, deploying them into workflows for automated execution. This would allow stakeholders to move more sophisticated risk modelling to the front-end application, increasing productivity and improving response times for applicants.

MANAGE DEPARTMENTAL WORKFORCES

Workforce analytics enable governments to develop human capital models to optimise resources based on any number of constraints, including budgets, schedules, skills sets and collective bargaining agreements. This benefits candidates by prioritising best-fit applicants, identifying training requirements and ultimately reducing attrition.

PERSONALISATION OF OUTBOUND COMMUNICATIONS

Personalisation improves the customer experience and provides additional insights to service agencies. Integrated analytics enable communications stakeholders to automatically analyse thousands of service requests and accurately filter out customer wishes from the noise of unstructured digital data volumes.

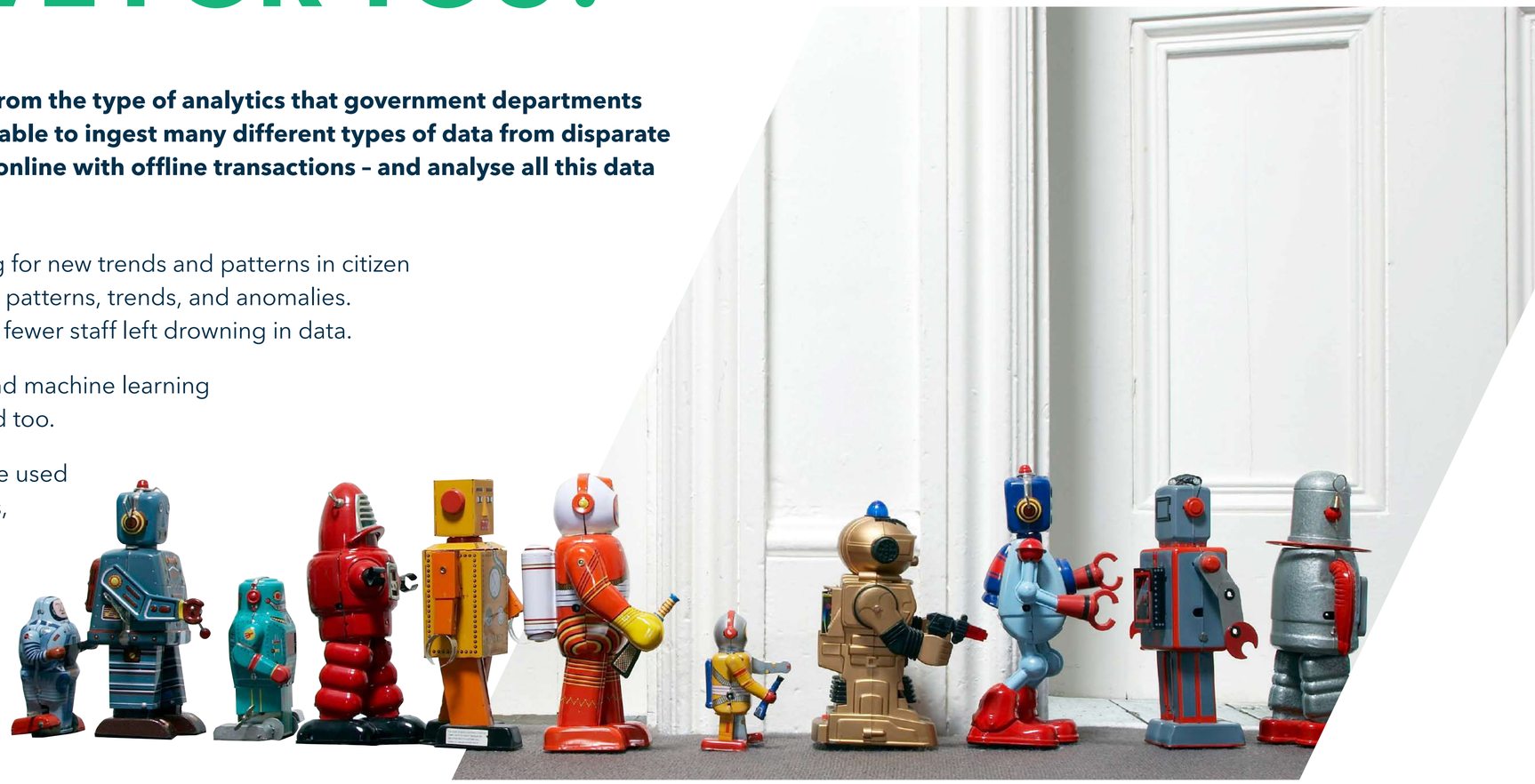
WHAT COULD A SINGLE DECISIONING BRAIN ACHIEVE FOR YOU?

A central intelligent decisioning capability stands apart from the type of analytics that government departments have deployed in the past. The key difference is that it is able to ingest many different types of data from disparate sources on every aspect of your operations – connecting online with offline transactions – and analyse all this data in almost real-time.

Intelligent decisioning is “always on”: it is continuously looking for new trends and patterns in citizen data and, with minimal human assistance, automatically spots patterns, trends, and anomalies. This effectively increases the number of decisions made, with fewer staff left drowning in data.

As the technology evolves, opportunities to incorporate AI and machine learning into other areas of your department’s core operations abound too.

For instance, voice and facial recognition capabilities could be used to protect against fraud, especially when demand for services, such as citizen welfare, health and wellbeing intensifies, reducing the capacity for manual identity checks.



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TRANSFORMATIONAL OUTCOMES

Because intelligent decisioning is so flexible, there are many activities it can transform. As food for thought, here are some of the most compelling and value generating ones.

FREE UP EXISTING RESOURCES
from onerous manual tasks so that personnel can spend time adding value and completing complex tasks.

IMPROVE RELEVANCY
of the services offered to citizens. Make intelligent, real-time decisions regarding applications and eligibility.

SPEED UP TIME-TO-SUPPORT
by enabling risk models to become more predictive through AI and machine learning. This streamlines processes, meaning citizens are approved for services and benefits faster.

BOOST EMPLOYEE SATISFACTION
by identifying and addressing the needs of individual employees such as training requirements, work from home arrangements and disability accommodations.

DRIVE REVENUE YIELDS AND PROTECT RESOURCES
by flagging tax evasion to investigation teams, or potentially fraudulent benefit claims.

AUGMENT EXISTING CYBER SECURITY EFFORTS
embedding within existing threat protection solutions to detect and deny advanced persistent threat and respond to anomalous behaviour in real time.

GAIN AN EARLY INDICATION OF RISK
by automating sensor information processing, especially in combat and high-risk zones and the protection of critical national infrastructure.

PROVIDE A STEP CHANGE IN NATIONAL SECURITY
presenting a framework and approach to introducing natural language processing, sentiment analysis, audio-visual analysis and the filtering and triaging of data.

DEPRESSURISE CRITICAL SERVICES
by making decisions to prevent reoffending, thereby reducing the pressure on an overburdened prison system.

CHANNELLING COMMUNICATIONS
appropriately drives up citizen satisfaction and uses limited resources more effectively.

SAS INTELLIGENT DECISIONING

For more information, please visit www.sas.com and talk to our government experts today.

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