Simpson
Associates

The future of UK policing:
Leveraging the power of data to connect and enable

Contents

UK policing - under the spotlight

For many years the UK's policing model has been the envy of the world. However, in some parts of the country, a rise in violent crime coupled with falling detection rates has attracted both social and political focus. While on one hand UK forces have greatly evolved in response to rising demand and budget cuts, on the other, many questions remain.

As we experience ongoing and dramatic changes in crime patterns, societal behaviour, and advancing technologies, are we confident that UK policing has fully adapted?

Budget Cuts

Public finances are feeling the strain, already having to support an aging society in need of more care, more help, and faster response times.

This is creating a huge challenge when it comes to keeping people safe. With less money to fund the right resources, communities are seeing fewer officers on the streets responding to rising crime levels. In addition, criminal opportunists are more likely to take chances with a visibly reduced police presence.

Recession uncertainties

The threat of recession and shortfalls in spending means public services budgets are now worth less due to higher prices. UK inflation has caused services budgets to lose value, meaning UK police forces have been subject to further strain, making it challenging for them to effectively meet the growing demands and maintain the same level of quality.

Six police forces in England and Wales have been placed in special measures and are in dire need of Government funding to improve and future-proof services. [1]

However, the Government is seeking stringent austerity measures from key departments. Lack of investment in technology will leave UK forces unable to provide the quality of policing the public deserves.

Experience levels

A quarter of all police officers in England and Wales now have less than five year's service, and one in 10 are in their first year in the job. [2]

This is leading to an increase in poor data quality, limited data standardisation, validation failures and data duplication, effecting incident analysis and [3] reporting. Police officers are having to spend extensive amounts of time retrieving data from silos and reconciling it before it can become actionable intelligence, creating further issues for citizens and regulators as they conclude that they can trust police organisations.

Advancing technology

Forces are increasingly aware of the potential for new technologies, such as AI and machine learning, to improve how they analyse data to the utmost efficiency. Technology can reduce mundane, repetitive tasks, releasing Officers and Staff to do the work that only a human can do. [4]

However, Former London Metropolitan Police Commissioner, Cressida Dick, applied pressure to forces to implement this new technology. [5]

As a result, 43 police forces across England and Wales have purchased new technology ad hoc at significant expense, adding extra strain to resourcing as well as often leaving them with an inefficient, non-personalised system that does not understand their needs.

In addition, technological advancement and data abundance are enabling criminals to operate at new levels of speed and complexity.

For example, a well-produced video calling for retaliation after a stabbing can be put online within two hours of an incident.

Where every crime has a digital footprint, every police force must harness digital technology while also considering the challenges for current legal processes and the investigative burden online crime carries. [6]

The impact of policing challenges

It's undeniable that police forces across the UK are under significant strain, which is why there has been a recent recruitment of 20,000 officers to increase staff numbers.

With this now in place, the total number of police officers at 31 March 2023 stood at 147,430. This exceeds the 2009 peak and is the highest number of police officers on record. However, at 233,832, the total workforce including police staff and police community support officers (PCSOs) remains around 4.6% below its 2010 peak. [2]

This was not an uplift, as described by some ministers, but infact a rapid replacement of those lost since 2010. [7]

A more agile approach is needed to connect and enable forces

Deloitte state that a quarter of UK police felt that not a single policing leader was ready for the future challenges created by technology enabled crime. [5]

Furthermore, HMICFRS 2022 reports claims that many forces don't collect enough data or enough good-quality data, preventing them from having a good enough understanding of the problems in their communities. Their 2023 report similarly claims, stating that police forces need to break the cycle of poor data, poor analysis and poor planning. [3]

These reports all capture the true need for an agile approach among forces and the importance of new solutions in order to prevent criminal activity.

The result?

Subsequently, officers are backfilling into roles which were traditionally done by civilian staff. Providing an opportunity for organisations to assess whether these gaps can be better served by implementing new technologies allowing warranted staff to be utilised where they can make full use of their powers.

While crime is decreasing and police are doing all they can, fears of crimewaves are on the rise along with the recognition that a more sophisticated response is needed to cope with the many challenges faced by today's forces. [4]

The wider tech sector is pulling together, and already innovating to help companies adapt to the vast amounts of data that needs to be securely shared between companies; and in line with GDPR legislation.

This is in support of The Policing Vision 2025, NPCC's' latest release. Its vision is to influence decision making for police forces, highlighting that policing needs a more 'agile' approach to data and information sharing between forces. It claims that:

"Police forces and their partners will work together in a consistent manner to enable joined up business delivery around policing support services and community safety." [8]

What's preventing the UK's forces from harnessing the power of data?

There are several common key obstacles preventing this from happening:

Officers, analysts and IT staff are not always aligned in their thinking

Time-intensive reporting, or reporting limited to an infrequent schedule

Static reports and out of date reporting systems

Strain on IT and Analytical functions to meet the demand for reporting, alongside daily tasks

Wasted man hours and resources, having to manually process data in Excel and other legacy tools

Difficulties to recruit and retain technical and analytics expertise in the public sector

Lack of GDPR interpretation deterring forces from interrogating and sharing personal data, to support safeguarding

Most police forces already have a vast array of diverse data within their organisation, that if harnessed in the right way, could provide more value and help shape the future of UK policing.

Data Quality
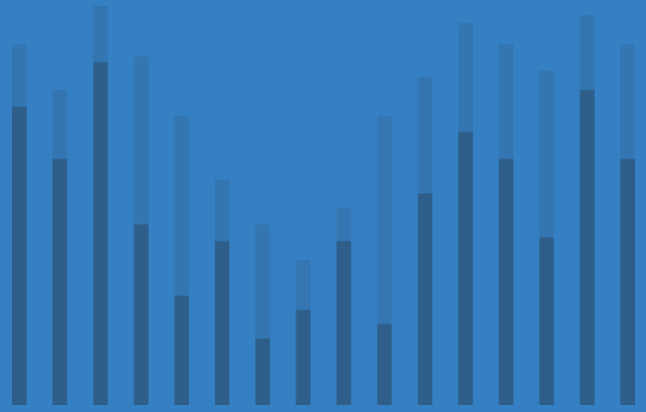
Having clean and accurate information is an essential requirement for delivering the best possible service. This can be a complex task for most police forces, especially when data from disparate sources or systems that cannot be aligned is required to make key decisions.

For example, many forces are unable to integrate their command and control systems with their case management system. In addition, many forces receive reporting information from their systems via third party applications or models, which may not be transparent in terms of the business rules that are applied. The resulting path is one with no clear view of how to get data in the right shape for analysis,

and so the real challenge is in creating and accessing more advanced analytics, that staff can report from.

Ultimately, police forces need to get data and information out to officers on the beat with the aim of safeguarding vulnerable people, and to deter and prevent crime.

While providing this data access is vital, it needs to be as accurate and as up to date as possible. For example, data needs to be reconciled and conformed, in order to facilitate accurate mapping so police can spot crucial trends, patterns, or relationships when it comes to vulnerable cases and criminals. As a result officers can be where they need at the right time, close cases quicker, and solve crimes more efficiently.

Inefficient analytics

Many police forces have been unable to invest in the latest analytics tools. As a result, these forces are stuck with data analytics tools that lack depth and often only highlight "what has happened".

Current data analytics tools have the ability to help police forces in a multitude of ways as well as offering interactive reporting with intelligence to show "why has it happened" - with data analytics tools such as Power BI.

There are several issues with using manual practices that may now be outdated and are setting police forces back.

Initially, using manual practices on data-intensive cases, with a lack of police analyst resources, can result in many man-hours used to produce critical reports. In such cases, police officers would have to go through an elongated process of finding the correct past incident and crime data due to using multiple systems.

However, if the force was to use an up-to-date system that provided a single data repository, it would provide them with the benefit of all their data being in a core hub. From Department Heads to Sergeants to Officers, staff right across the force would be able to easily find the correct data and then be able to analyse it using a data analytics tool.

Further, using outdated systems means it is difficult for forces to predict when certain resources need allocating. It is important for a force to have a full picture of what resources are needed and when.

Utilising modern data analytics enables all areas of a police force to make data-driven decisions. By analysing past and real-time data, they can identify patterns, trends, and correlations that offer valuable insights. Being able to understand what demands are being placed on the team and what skills are required, can help minimise the risk of poor resource allocation across the board.

Ultimately, utilising modern data analytics tools allows for increased visibility across the force as well as explanations behind the data, improving their previously inefficient analytics. Armed with the knowledge that advanced data analytics tools can provide, forces can be in a better position to support their teams with the appropriate skills and provide a more efficient service.

Preparing for a future of predictive analysis and AI

When it comes to analytics, predictive analysis and AI are hot topics across the nation's forces.

Many UK police forces have made use of crime-prediction software, or plan to do so, to help provide new insights into serious threats.

The aim is to predict serious violent crime using artificial intelligence to flag individuals and offer interventions such as counselling, to avert potential criminal behaviour.

Predictive mapping has the ability to highlight crime hotspots that provide patrolling staff with location information, and individual risk assessments have the power to risk score how likely an individual is to commit an offence or become a victim of crime.

Simpson Associates have extensive experience with implementing bespoke Machine Learning and AI solutions, including Demand Forecasting (Merseyside Police, Derbyshire Constabulary), risk modelling (TOEX) and NLP/text analytics (TOEX).

In addition, our experience of working with other UK police forces and national programmes has seen us develop a range of tools using services such as Azure Video Indexer and Cognitive Services and, more recently, Azure Open AI.

Simpson Associates have developed a range of capabilities that are already being used by UK law enforcement agencies. These capabilities include:

- AI Translate
- AI Transcribe

How Simpson Associates can help

In order to leverage the full potential of such advanced technology, police forces must have the right platform in place along with data quality of a high enough standard.

We're constantly innovating, dedicated to developing solutions such as Demand Planning, Stop and Search, Safeguarding as well as technology that will streamline the management of missing persons, custody cases, BOLOS and warrants.

With vast experience spanning a rich business pedigree, our data solutions have enabled us to help forward-thinking forces understand and resolve some of the most complex and common challenges.

This includes being able to help forces not only prepare but get the fundamentals right before investing in the next new wave of technology that will help drive safer communities.

Simpson Associates have successfully delivered solutions to a number of police forces in Fleet Management, Crime and Incident Reporting, and Demand Forecasting.

Becoming self-sufficient with BI

With the right tools in place, data is made more accessible for officers which will allow them to benefit from better visibility when it comes to records, cases, and criminal data.

In addition, BI provides an extra level of confidence that figures are correct when it comes to reporting, regardless of perspective. That gives anyone from Analysts to Senior Management to Officers – technically minded or not – the ability to self-serve vital information on-demand across a number of areas.

The biggest challenge of all when it comes to investing in a well modelled analytics platform – or any new technology - is restricted budgets and a lack of internal resources. It takes time, money, and training to get staff up to speed.

We can take you through that journey from reactive to proactive to predictive, ensuring your officers are equipped with the best technology to do their job.

We've been working with the Tackling Organised Exploitation programme (TOEX) on their data needs. Together, our teams have developed a 'revolutionary' single data platform that has the opportunity for national implementation as well as work on risk modelling, NLP/text analytics and a translation and transcription tool. [2]

At Simpson Associates our focus is not just taking you on the Data journey; we leave you with the capability of continuing development yourself.

We measure success by helping you become self-sustainable and while this may incur an initial upfront expense, going forward it eliminates the need for you to pay large ongoing support fees.

We provide knowledge transfer, so that at end of the project, your force can own the solution and move it forward without extra costs of third party involvement.

Meeting today's challenges with tools for tomorrow

Once your project is complete and your system up and running, keeping it updated is essential in order to gain more actionable insights from data.

With Analysts currently spending so much time collecting data to present back to the end user, automating key processes and keeping data clean can save time and costs, enabling access to insights in real time. Because of the time saved collating data, this information is no longer a day or two out of date, resulting in a better ability to tackle some of the biggest challenges faced by today's UK police forces.

With the right tools and technology, many benefits can be realised from a time, cost, and service level perspective.

Decisions can be made quicker, meaning less delay responding to incidents. Police can be more proactive and provide a better service level with improved response times, no matter how complex the crime.

And officers can share information in a more transparent way with other forces and public services when required. For citizens, the result is a more visible police presence, a safer community, and a more efficient service; delivered by forces that are informed and readily available to assist.

Unlock the power of your data and make better informed decisions, with data solutions from Simpson Associates.

We're a Microsoft Solution Partner in Data & AI, Infrastructure, and Digital & App Innovation, holding the Advanced Specialisation for Analytics on Azure. We're also proud to be an IBM Gold partner, specialising in Cognos Analytics, Planning Analytics (TM1), and Information Governance, and a Databricks Partner.

We are also a proud winner of the 2024 Microsoft Community Response Partner of the Year award, for our work with TOEX and using data and AI for good. [9]

We believe your data can solve real-world problems and we are ready to help you achieve that.

Contact us today to see how we can help transform your police force and enable your officers to better serve the public.

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