Artificial Intelligence in Policing – Governance and Oversight

A Research and Evidence Forum event

The third forum event "Artificial Intelligence in Policing – Governance and Oversight" was held on 26 February 2021. This online webinar was co-Chaired by Martyn Evans (Chair of the Scottish Police Authority) and Deputy Chief Constable Fiona Taylor of Police Scotland. It focused on the emerging issue of Artificial Intelligence (AI) use in policing.

The event covered the themes:
- Strategy & Policy Development
- Practical use of AI & Oversight
- Assurance & Scrutiny

More than 80 people took part, representing a wide range of organisations from across the UK. Delegates came from academia, civil society organisations, regulators and government, as well as from the police service in Scotland and other parts of the UK.

The presentations and discussion pointed to a number of critical themes, including:

- Citizens at the centre of AI work – how will it improve their lives?
- Inclusion is critical – to help bridge the digital divide
- Importance of having a clear vision for the use of AI, designed around the public good
- Connected approach across public sector, built on systematic sharing of quality data
- Transparency at all stages from development to implementation
- Ethical and explainable AI has most public support

Overall, participants were energised by many prospects and ideas covered over the course of the day. The need to have a citizen-centric focus was the overarching takeaway message, and there was forward-looking discussions about what everyday engagement might look like.

A great blog setting out useful definitions on Data Science, Artificial Intelligence and Machine Learning available here.

Our Speakers:

Albert King Chief Data Officer at the Scottish Government

Ian Dyson QPM Commissioner, City of London Police and chair of IMORCC (Information Management & Operational Requirements Coordination Committee) – under the National Police Chief's Council (NPCC)

Dr Marion Oswald Northumbria University and Chair of the West Midlands Police Ethics Panel

Superintendent Matt Tite Head of the National Data Analytics Solution at West Midlands Police (WMP) and **Mandeep Dhensa** (Accenture)

Anne Russell Group Manager, Information Commissioner's Office (ICO)

Chief Inspector of Constabulary Gill Imery QPM Her Majesty's Inspectorate of Constabulary in Scotland (HMICS)

Theme 1: Strategy and Policy Developments

Scottish Government AI Strategy

Albert King, Chief Data Officer, opened the Webinar with an overview of the Scottish Government's new AI Strategy and the approach taken in its development. The strategy launched on 22 March 2021 and is available to view here.

Albert outlined the Scottish Government vision for the strategy; that data should be used systematically to improve decision making, bringing benefits to our public services, environment and economy
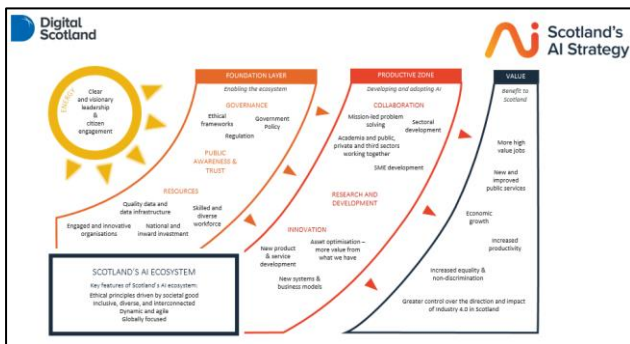
He went on to explain how the COVID pandemic has accelerated the digital push and how his team have worked to consult and engage on the AI strategy.

In connecting the strategy to the wider vision for translating data practically for citizens, the Scottish Government aims to improve fairness, inclusivity and to build a thriving economy.

Albert cautioned that AI should not be seen through the lens of techno-optimism (i.e. doing smart things for the sake of it). Instead it is about unleashing data and unlocking innovation to accelerate wider and longstanding goals in relation to the public good and delivery of improved outcomes. The consultation exercise revealed a very high level of public support for the developing strategy.

Transparency came through as a clear theme, recognising that there is a degree of public nervousness regarding data capture, processing, and sharing. Explainable and ethical AI is therefore at the heart of the new strategy, along with a commitment to maintain a sustained dialogue with citizens.

Another important point noted was around 'digital literacy' – ensuring that people can participate and access digital developments and understand what it means for them as a matter of benefits balanced against risk.

UK Police Digital Strategy

In this segment, Commissioner Ian Dyson QPM, City of London Police and the National Police Chief's Council (NPCC), made a number of key points relating to digital strategies and AI in policing. His insights arise from observations through is role as chair of the NPCC Information Management & Operational Requirements Coordination Committee; which has recently developed the National Policing Digital Strategy 2020-30.

The strategy covers five key ambitions, as detailed in the image below.

Ian was also clear that there have been, and remain, many challenges along the way:

- There needs to be clear communication surrounding data in a technical sense – knowledge about data processing should be accessible and easily understood.
- Ask the question "should we do this?", rather than "can we do this?" - It is important to link to strategy, vision and consensually agreed usage.
- Technologies should be scalable and be able to integrate with existing ICT systems.
- AI is only as good as the underlying systems and the quality of data captured. He cautioned against applying cutting-edge AI to out of date ICT systems.
- Data security and information management is paramount. Specialists should be involved from the planning of digital and AI solutions.
- Finally, policing is a public service, so should overcome the initial attraction of emergent technology with a more level-headed approach.

In closing Ian shared important advice - when looking to improve services using technology we must always challenge ourselves to ask "what does this mean for the citizen?"

Furthermore, while benefits must always be identified in regard to business change, we cannot neglect the importance of having a digitally enabled workforce. He concluded with the observation that all activity related to police-work now leaves a digital footprint, and queried "how do we utilise this?"

Theme 2: Practical use of AI and Oversight

This section of the event looked at the AI and ethics work underway in West Midlands, with an overview from Dr Marion Oswald (Northumbria University), followed up by a case study presentation from Superintendent Matthew Tite (WMP) and Mandeep Dhensa (Accenture) illustrating the use of data analytics by the West Midlands Police Force.

Establishment of an Ethics Panel

Dr Marion Oswald, Chair of the West Midlands Data Ethics Committee, explained that the Committee was the first of its kind, ensuring that ethics and citizens' rights are at the forefront of data science projects presented by WMP's Data Analytics Lab.

Think first about impact when 'operationalized'

• **Handling the output** and Article 8
• It's **'intelligence' not fact** – how will it be used? Where will it be disclosed? What if it turns out to be wrong or misleading?

Recognising that data analytics can enable more effective analysis of multiple data sources, Marion outlined the crucial role of the Ethics Committee in supporting a preventative, not reactive, approach. In order to address significant problems such as intelligence gaps and proportionality, she emphasised that leaders should use data analytics to make best use of the data sources available.

Marion touched on a number of themes that emerged from the Ethics Committee proceedings:
- the need to ensure that *intended benefits* are clear and articulated. It was noted that in the preliminary phases of AI usage, many issues arose due to lack of clarity on how AI reads in communities.
- the need for *data protection evaluations and legal advice* to run alongside any project from conception to implementation.
- the '*garbage in, garbage out*' principle was also identified as a committee theme, with the necessity for only relevant data to be included in AI systems.
- the need for *increased discretion*. She noted that when you are working with data analytics you are working with predictive intelligence, not fact. We must always be thinking "what happens if this turns out to be wrong?"

As a possible solution to the cautionary themes that arose from the Committee proceedings, Marion proposed a three-pillar approach to the use of AI in policing:

1. The need to act within the law (i.e. ask which legal frameworks relate to which tools),
2. the need for standards (i.e. both scientific and ethical codes of practice should be linked to personal responsibility), and
3. the need for skilled people (i.e. technical expertise, leadership, and a culture of accountability).

The National Data Analytics Solution

Shifting the focus from an oversight level to the operational application of AI in policing, Matthew Tite and Mandeep Dhensa gave an overview of the National Data Analytic Solutions (NDAS) project. Funded by the Home Office, WMP (as the Lead Force within a partnership of 8 additional Forces) have collaborated with Accenture to create a scalable and agile analytics platform for UK law enforcement agencies.

Firstly, a use case is first brought to the ethics committee for scrutiny (e.g. modern slavery) and rigorous feedback. Once a case has been approved, parameters around what kind of data will be used are identified and forces then input their data into the platform. Raw data is made consistent (in the 'harmonisation layer'), effectively preparing the data for cohesive use. Datasets are then analysed and transformed using machine learning and various data science techniques. The analysed data are then displayed in a dashboard, allowing law enforcement to make practical decisions to minimise harm within communities by targeting resources towards particular issues.
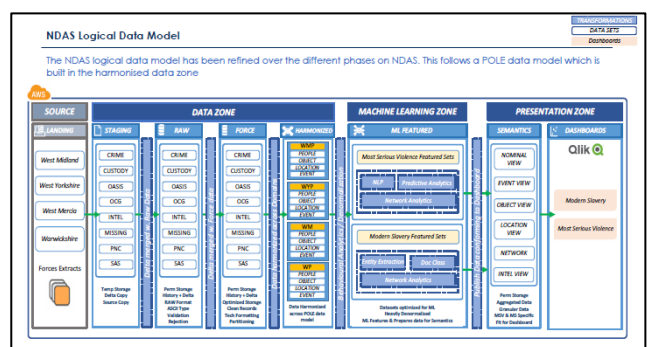
However, both Matthew and Mandeep noted that there can be challenges in using an analytics platform. For example, they noted one use case which addressed serious violence was advised to be paused by the ethics committee due to the predictive element of analysis. This highlights the need to consider risks associated with predictive algorithms. There are significant ethical considerations around predictive elements relating to vulnerable people – with the potential for unintended consequences to overshadow the benefits.

Theme 3: Assurance and Scrutiny

The final inputs to the event were delivered by Group Manager Anne Russell from the ICO, and Chief Inspector of Constabulary, Gill Imery QPM of HMICS. Both speakers outlined some of the ways assurance and oversight can be used in relation to data analytics and AI in policing.

Data Analytics Toolkit

Anne Russell's presentation outlined the ICO's Data Analytics toolkit - a mechanism to be used by organisations at the preliminary phases of projects to "help them recognise some of the central risks to the rights and freedoms of individuals created by use of data analytics solutions".

The toolkit guides users through data protection compliance considerations when they are embarking on a project. It is important for a use case to be sufficiently outlined from an early stage.

Anne recognised the importance of police forces using innovative solutions to for law enforcement purposes. The ICO is supportive of this provided that data protection law is embedded. Police forces should also understand the processing, throughout its lifecycle and the impacts. She identified that the use of data analytics is found in English policing and understands that this is not the case in Scotland. She also noted that data controller responsibility is vital to assessing risk and proportionality and demonstrating accountability.

Anne also flagged further guidance available at the ICO website on Live Facial Recognition, Explainability, and further direction on AI and data protection.

Reflections on Scrutiny and Inspection

The final speaker was Chief Inspector of Constabulary Gill Imery QPM, who set out HMICS's role in relation to AI and data analytics in Scotland's policing.

HMICS - as an independent scrutiny body - assesses the effectiveness and efficiency of Police Scotland and the SPA, with a focus on improvements for the benefit of the public.

While Gill was supportive of better use of enhanced data analysis in public services, she noted that there must also be public trust and confidence when using new technological systems. Public confidence and legitimacy are fostered from robust and visible oversight.

The principle of self-evaluation allows a good evidence base to be formed. Police Scotland's self-evaluation processes will allow for positive processes and projects to be publicly amplified, whilst drawing attention to areas where there are issues. In relation to the SPA, Gill recommended that effort must be made to identify future issues of public interests (such as AI and algorithmic data analysis), so as to hold Police Scotland accountable for citizens.

Gill noted that HMICS's audit and assurance review of biometrics functionality in 2016, led to the construction of the Scottish Biometric Commissioner Act 2020 (Commissioner to be appointed imminently) – emphasising the ongoing development and evolution of these important issues.

In conclusion, Gill noted that there is a requirement to make things clearer and more transparent. This agenda required more consultation and engagement to be conducted, with central consideration of equalities and human rights from the outset. This will contribute to the improvement of policing for the benefit of the public.

For more information on the Research and Evidence Forum please visit our webpage:
http://www.spa.police.uk/performancepages/evidenceandresearchroundtable/

You can also contact Amanda Coulthard (Head of Strategy and Performance) at the Scottish Police Authority:
amanda.coulthard@spa.pnn.police.uk