



ETHICS COMMITTEE

Wednesday 27 November 2019, 10:00 – 15:00 hrs

Room LH 8.4, First Floor, Lloyd House, Colmore Circus Queensway, Birmingham, B4 6NQ

Present:

Marion Oswald (MO)	Chair
Anindya Banerjee (AB)	Ethics Committee
Claire Paterson-Young (CPY)	Ethics Committee
Janine Green (JGr)	Ethics Committee
Jennifer Housego (JH)	Ethics Committee
Jonathan Jardine (JJ)	Chief Executive (OPCC)
Louisa Rolfe (LR)	Deputy Chief Constable (WMP)
Malcolm Fowler (MF)	Ethics Committee
Peter Fussey (PF)	Ethics Committee
Rachel Skett (RS)	Secretariat (OPCC)
Thomas McNeil (TM)	Strategic Adviser to the PCC & Board Member (OPCC)
Tom Sorell (TS)	Ethics Committee

Other Attendees:

Lucy Naylor (LN)	Business Support (OPCC) - supporting Ethics Secretariat
Nick Dale (ND)	Superintendent (WMP)

Observers:

Christopher Todd (CT)	Chief Superintendent (WMP)
Davin Parrott (DP)	Principal Data Scientist (WMP)
Richie Evans (RE)	Chief Inspector (WMP)
Anne Russell (AR)	Information Commissioners Office (ICO)
John Best (JB)	Information Commissioners Office (ICO)
Sameera Arshad Hussain (SAH)	Information Commissioners Officer (ICO)
Anisha Passcuran (AP)	Accenture
Fernando Lucini (FL)	Accenture
Ian O'Gara (IG)	Accenture
Mandeep Dhensa (MD)	Accenture
Emre Erdem (EE)	Accenture

Apologies:

Jamie Grace (JG)	Ethics Committee
Rebecca Hemmings (RH)	Ethics Committee



1 -	The Chair welcomed everyone to the meeting and noted there were observers from Accenture who are working on the NDAS project and also observers from the Information Commissioners Office.
2 -	Apologies: Apologies were received from Jamie Grace and Rebecca Hemmings.
3 -	National Data Analytics Solution – Most Serious Violence (MSV) ND attended the meeting and provided an overview of the MSV model. The following points were noted: <ul style="list-style-type: none">- When looking at ‘Most Serious Violence’ it is important to note that this is defined as a violent crime with the use of a gun or knife.- The model seeks to calculate a risk score and predicts the likelihood of someone committing a MSV crime within two years.- The model uses data sets from two forces (West Midlands and West Yorkshire) to generate predictions in those areas- It identifies Key Predictive Indicators (KPIs) which build the model and allows for predictions to be made, i.e. it identifies factors that, based on past data, are best at helping to predict MSV.- It is proposed that the results would be presented in a dashboard, which shows the findings from the MSV analytics model—both in terms of the overall strategic statistics of MSV within a police force area as well as providing a single view of an individual’s past recorded appearances within police data. For the purpose of the presentation the dashboard presented was a mock-up.- The data produced is intended to input into the process for interventions.- It was stated that location and ethnicity data had been taken out, but added it would not be possible to consider operationalising without consideration of an analysis of the impact of these factors. <p><u>The Committee had the following questions:</u></p> <ul style="list-style-type: none">- Is the tool going to be used as an investigative tool? ND noted this will not be used as a primarily investigative tool. There will be different levels of access to the system which will manage the risk as access to the data would be limited. It is envisaged that the model would be used for supportive public health-based interventions only.- Will the intervention be location dependent? ND noted the threshold set for producing a number of predicted MSV is to purposely identify a cohort of a certain size rather than a particular location, and this is the number of people that a force can deal with (i.e. the force might struggle to work with more than 100 to 150 people and therefore the model cut-off points are chosen to create an output of predictions at this number). Therefore depending on the size of the force and the resources available the percentage may change.- What will the use of the tool and outputs produced add to what the police already know? ND noted the tool encompasses all intelligence data and produces a more comprehensive view around individuals than they currently have.



- What work are the forces doing to ensure human rights are protected, to set out red lines for interventions resulting from outputs, and to ensure that the models cannot be misused for interventions that might contravene rights? ND said WMP is eager to work with the ethics committee and independent professionals to ensure there is a comprehensive ethics framework that encapsulate human rights principles and law. The NDAS team also welcomes the offer from Tom Sorell, member of the ethics committee, to support the understanding of human rights impact.
- Will harm arise if individuals who would not in fact have committed a MSV are identified for an intervention? ND noted that the MSV use case focuses on identifying individuals before they have committed an MSV offence for the first time, and that guidelines and parameters to avoid harmful interventions would be identified and set with the help of the committee to assess this risk.
- How are networks and associations defined and does this include Stop & Search data? ND advised Stop & Search data is not included in the model, it is crime reports and intelligence documents. Associations and networks are identified in various ways including being a co-suspect on a crime report or linking a person to an event.
- Are links between individuals in the data checked by a human to ensure their accuracy? If so, what is this process? ND noted that links are formed by officers and staff putting crime and intel logs into the system. In terms of intel logs, the sanitiser forms those links.
- How will the model outputs be reviewed? ND noted deep dive work is ongoing looking at false positives, the extent to which the model does actually provide any new meaningful insights beyond existing professional judgment and a security working group has been established within the West Midlands to ensure data quality.
- How will the information be handled, protected and used? ND noted there will be different levels of access to the system and the data is not used from a criminal justice system perspective and will not be used to progress an investigation.
- How was intelligence data codified by the system as this type of data is by its very nature uncertain and context dependent? ND noted that an erroneous link in the data would have a very low effect on the accuracy of the model. There is nothing that would detract from professional judgment - the assessment of how weighty that connection is should be made by the officer using the output.
- Do the outputs represent a surprise i.e. does the tool produce new, useful insights compared to existing methods? ND noted that a full review of the cohort of individuals has not yet been completed, and more analysis will be conducted to understand the cohort and the additional insights NDAS brings to our understanding of these individuals.
- Is the tool in fact fit for purpose as the precision rate is 54 percent which is not significant? ND noted that the model starts with a population in the data of approx. 2.4 million people, of whom roughly 1300 commit their first MSV (this is approx. 0.05%). ND contended that the fact that we can identify a manageable cohort of people of whom we can be confident more than 50% will commit their first MSV offence using a gun or a knife within the next two years gives an unprecedented opportunity to intervene and change people's lives. The Committee queried to what



extent these individuals would not have been known about and considered high risk already and that ascertaining whether this is correct or not is integral for assessing the value of the proposed model.

- How will forces ensure human judgment and discretion is retained given what might be a temptation to defer to a technological or 'scientific' output? It was suggested it was not enough to simply say the tool will supplement human decision making. ND noted that we will provide a framework for how data analytics can be used within policing. A limited deployment provides more of that opportunity to get that right before it is expanded to other forces. A framework will be developed for this purpose and NDAS insights will be supplied alongside this framework, so that a toolkit of potential interventions and case studies such that the interventions can be monitored for effectiveness.
- How do you review the fidelity of the information especially intelligence? ND noted that Scott Patterson, the Information Security Officer has put together a security working group to ensure these issues are ironed out across all forces. Data is kept in its original form, and not changed by the NDAS team. We add to the data to ensure we know we can track where it came from, for traceability. Further, the quality of insights indicates the quality of data. We are doing a deep dive analysis of the false positive impact and this can be shared.
- Is there a risk the model will result in agencies focussing on certain individuals and missing opportunities with others, due to the nature of data in this model? ND noted that there was a risk that individuals would be missed and therefore positive interventions are not put in place for these individuals. It is however expected that the model will provide insights the force is currently unaware of, and the model will be subject to constant review and improvement.
- Some members asked whether a specific process would be established to enable members of the public to complain and/or understand what data was being held on them as a result of this model. ND's response centred on the fact that any interaction with individuals, as currently done today, will be based on the police's full knowledge of the individual in a particular situation. The individual will be informed, as part of ordinary police notification processes, of how a decision/intervention has been taken and the factors that were taken into account. The lines of challenge start with the individual's right to review and challenge; followed by challenge by the officer's supervisor; then complaint to the police; followed by complaint to the Independent Office for Police Conduct. It was acknowledged that an extra layer to the review system should be explored; the Deputy Chief Constable noted that the NDAS would work to define this.

National Data Analytics Solution – Modern Slavery (MS)

ND attended the meeting and provided an overview of the MS model. The following points were noted:

- Network based approach to identify modern slavery patterns and trends. It was noted that safeguards were needed around identifying individuals as victims and/suspects and controls on who could access this data, such as addressing concerns that model outputs could be accessed by immigration control authorities which is not the purpose of this model



- The model proposes using data sets from two forces (West Midlands and West Yorkshire) to generate network analysis in those two areas.
- The model is to be used as a strategic tool to identify Organised Crime Groups (OCGs) involved in modern slavery (such as sexual exploitation, domestic servitude, exploitative labour, human trafficking) and to put interventions in place.
- The data can be broken down by age, gender and ethnicity and also highlights true positive and false positive variation.
- The question was raised as to how the process will identify less obvious risk factors.

The Committee had the following questions:

- Has NDAS thought about ethical issues concerning deportation when identifying victims of modern slavery? ND noted the tool will identify both victims and offenders and this information will be used when putting interventions in place. ND note that there is no intention whatsoever to share outputs with any immigration control authorities, but acknowledged this needs to be thought through to ensure the model works to protect human rights and against victimisation and not for other agendas.
- Is the NCA involved to help inform risk models, and is there a lack of data due to the hidden crime nature of modern slavery? ND noted the NCA is a partnership organisation of NDAS. The NCA does not have any better data in this field and the idea is to build a national capability to improve knowledge of these crimes from the current position.
- Will the model identify more victims than offenders and how will WMP support victims to avoid criminalisation? ND noted the model will identify all people within the network and consideration will be given to vulnerable victims when putting interventions in place. Committee members expressed real concern over insufficient levels of current support for victims identified from modern slavery investigations. ND agreed with this concern. It was stressed how important it is for there to be an accompanying strategy for using any new model to ensure victims are properly supported and the complexity of their abuse understood, i.e. such as those individuals who are forced into being perpetrators or become embroiled in offending behaviour as a result of their abuse.
- Will there be a risk that some businesses are incorrectly identified and linked to modern slavery, and therefore be harmful to their reputation? ND noted the model identifies individuals not businesses, however if a business is identified then the tool could aid an investigation if evidence is found, but it is important to note that any investigation and decisions made as a result of the tool would require a detailed analysis by investigators based on evidence.
- What intelligence data will be included and does it include suspects? ND noted crime data and intelligence data are used, therefore personal data will be included as part of the overall data. The aim of the model is to identify victims as well as suspects.
- Could the model be misused, particularly in relation to immigration control authorities, and/or a governmental pursuit of a policy around creating a hostile environment for foreign nationals? The Windrush scandal was mentioned as a basis for having legitimate concerns. ND noted there has been no approach by immigration control authorities and



	<p>the model does not have a focus on immigration it is about tackling those who are associated with causing harm. It was acknowledged however that ongoing ethical scrutiny is needed on this issue.</p> <ul style="list-style-type: none"> - Does NDAS have a breakdown of how many victims and offenders are identified? ND noted this breakdown is currently not available but would be useful.
4 -	<p>The meeting was paused for lunch at 12:30.</p>
5 -	<p>Committee Advice & Recommendations to be provided to the Police & Crime Commissioner and Chief Constable:</p> <p>Most Serious Violence (MSV)</p> <p><u>The following positive comments were noted:</u></p> <ul style="list-style-type: none"> - The Committee expressed their thanks to the presenters and found the use of PowerPoint presentation helpful in further explaining the model. - The Committee also liked having experts in the room from Accenture who were able to answer questions. <p><u>The following general comments were made by the committee:</u></p> <ul style="list-style-type: none"> - The Committee has not seen any legal advice regarding the model and there is no DPIA specific to this model, meaning the committee cannot advise to progress. - The data set used is relatively limited and has already been through initial sifting. This raised concerns over whether the sifting process is accurate or appropriate. To this end, the committee raises the issue that lots of evidence points to the role of adverse childhood experiences or childhood trauma in presenting life challenges that can increase the risk of violent behaviour, and that the MSV model is therefore potentially very limited in its predictive capacities relying on such a narrow set of data. In any event, access to wider data sets would give cause for new ethical considerations, including around data protection. - The Committee was concerned that if this model was designed to present new insights about offenders not known to WMP already, that it was unlikely to achieve this result if it was only relying on police data. - The Committee wondered if enough consideration of the human rights legal principle of 'necessity' had been given and whether the accuracy rate is 'proportionate' given the requirement for effectiveness. - By generating a prediction about an individual, that individual will then be on a police system which will have consequences. The predictions generated also identifies families which will also have consequences. - Interventions should be used carefully as it cannot be assumed that they will be beneficial or welcomed by individuals. There is a lack of clarity over what the police response would happen if a person or group of people refused an intervention. - It was noted that although control over interventions implemented by other forces might be limited, there was a responsibility to ensure that parameters, controls and clear guidelines are set for those in receipt of the data. There was concern that the model would be used to predict criminal trends then in turn result in intrusive investigatory interventions.



The need for clear guidance and regulation of predictive analytics was also mentioned.

- Bearing in mind the non-significant precision rate of 54 percent, the committee discussed the need for further evidence of benefit to policing purposes and evidence as to why use of the tool would improve current processes. There was almost unanimous agreement that this precision rate seemed very low and cast serious doubt as to the model's current utility/reliability.
- Some members asked whether a specific process would be established to enable members of the public to complain and/or understand what data was being held on them as a result of this model. ND said thought would be given to this and that it was reasonable to expect a process to handle this right.

The committee therefore makes the following recommendations to NDAS:

- In the opinion of the Committee, a number of ethical issues need to be thoroughly dealt with before this should be operationalised.
- Before any move to operationalise the tool, the precision rate needs to be further considered and the Committee encourages more work on looking at the inaccuracies which include true positives and false positives. The Committee emphasised the fact that interventions based on false positives could be very harmful.
- The Committee would like to see further analysis of all the predictors used and further explanation as to why they have been chosen.
- Consideration needs to be given to other data sets that could be used in order to give a full picture of an individual before an intervention is put in place or it is decided that an individual should not receive an intervention.
- The Committee wants further work to be done to demonstrate the benefit the tool could provide compared to existing methods of deciding upon interventions. This includes a qualitative analysis of what the model provides over and above professional judgment, including knowledge based on multiple risks factors around mental health, substance misuse, abuse and other issues that provide a more contextual understanding of someone's potential to commit crime.
- The Committee advises that a framework is developed which will give consideration to the way the output of the tool is understood, how it is communicated to officers and the purpose for which the output will be used and whether it will be limited to non-coercive interventions.
- More information is requested about how the outputs of the tool are fed into interventions. The Committee recommends that a framework or guidance is developed around the output. This might include red lines setting out the kind of interventions most likely to be deemed unethical.
- The Committee recommends a process is developed to produce qualitative data, highlighting what interventions are happening now and what could happen with the new interventions.
- Consideration needs to be given to data protection implications and human rights as the outputs generated by the tool is a significant piece of new personal data.
- Further information is requested about the use of intelligence data within the tool and how this impacts on the model in generating numbers.



- The Committee requests more information about the review process (i.e. the independent analysis of the model and its proposed operationalisation) and an explanation about how this is done. The Committee advises that various experts should participate in this review including a data scientist and data protection expert.
- The Committee recommends that Management of Police Information should be referenced in the paper and also consideration given to future CDEI guidance to ensure compliance with issues that go beyond data protection.

Based on the questions and recommendations, the committee unanimously voted in favour of option 'E' under the Terms of Reference, meaning it is not yet able to advise the Police & Crime Commissioner and Chief Constable on approval or otherwise of the model in respect of the ethics standards expected and has therefore requested more information in order to be able to provide further advice. In turn, the Police & Crime Commissioner and Chief Constable are therefore advised to request NDAS come back with more information as suggested above.

Modern Slavery (MS)

The following positive comments were noted:

- The Committee expressed their thanks to the presenters and found the use of PowerPoint presentation helpful in further explaining the model.
- The Committee also liked having experts in the room from Accenture who were able to answer questions.

The following general comments were made by the committee:

- In the opinion of the Committee, a number of ethical issues need to be thoroughly dealt with before this should be operationalised.
- The Committee has not seen any legal advice regarding the model and there is no DPIA specific to this model, meaning the committee cannot advise to progress.
- The use of including ethnicity data was unclear, however gender and ethnicity might actually be important in terms of identifying victims.
- It is likely that insights would be discovered such as networks between victims and offenders which raises concerns over how to protect vulnerable victims and the sometimes complex overlaps and distinctions between perpetrators and victims. This also raises concerns including whether restrictions should be put or would be put on communication with other agencies from example immigration authorities.
- There is no clear method stated in the paper that demonstrates the usefulness of the model, including no explanation of how operationally the output would be used.
- There needs to be a clearer explanation about false positives and if they are identifying modern slavery or something different.
- Labelling an individual as being involved in modern slavery could be very harmful if this was based on false positive data.
- What methods or processes would be put in place which details an individual's right to challenge the output of the model?
- The Committee would like to see the independent evaluation referenced on page 5 of the project proposal.



	<ul style="list-style-type: none">- The Committee noted that this tool was an investigative tool in that leads from it could be the trigger for further investigation.- The Committee asked about the process for engaging the natural language processing method. <p><u><i>The committee therefore makes the following recommendations to NDAS:</i></u></p> <ul style="list-style-type: none">- The Committee requests additional information about the application of the tool and the benefits of the tool in relation to modern slavery investigations.- Further detail on the use of ethnicity data is needed, as this was not clear in the report.- The Committee would like to see a method developed for analysing how effective the tool is including in relation to false positives from the use of key words.- Further information is requested about the possibility of using the tool for investigative purposes or for other purposes, specifically in relation to immigration control. If vulnerable victims are identified how will this information be shared with other agencies?- The Committee would like to see a breakdown of how many victims are identified and also how many offenders.- The Committee recommended that general consideration is given to the overall outcome that is sought and whether/if data science methods can contribute positively to achieving those outcomes. <p>Based on the questions and recommendations, the committee unanimously voted in favour of option 'E' under the Terms of Reference, meaning it is not yet able to advise the Police & Crime Commissioner and Chief Constable on approval or otherwise of the model in respect of the ethics standards expected and has therefore requested more information in order to be able to provide further advice. In turn, the Police & Crime Commissioner and Chief Constable are therefore advised to request NDAS come back with more information as suggested above.</p>
<p>6 -</p>	<p>The date of the next meeting is to be confirmed, however it is likely to be held in January 2020.</p> <p>The meeting closed at 15:00.</p>