



ETHICS COMMITTEE

Wednesday 3rd November 10:00 – 14:00 hrs

Meeting held virtually via Zoom

Present:

Marion Oswald (MO)	Chair of Ethics Committee
Jamie Grace (JG)	Vice Chair of Ethics Committee
Thomas McNeil (TM)	Assistant Police & Crime Commissioner
Anindya Banerjee (AB)	Ethics Committee
Claire Paterson-Young (CPY)	Ethics Committee
Malcolm Fowler (MF)	Ethics Committee
Janine Green (JG)	Ethics Committee
Peter Fussey (PF)	Ethics Committee
Jennifer House-go (JH)	Ethics Committee
Derek Dempsey (DD)	Ethics Committee
Tom Sorell (TS)	Ethics Committee
Emily Gilbert (EG)	Secretariat - OPCC
Davin Parrot (DP)	Data Analytics Lab - WMP
Karl Shutes (KS)	Data Analytics Lab - WMP
Chris Todd (CT)	Assistant Chief Constable - WMP
Matthew Tite (MT)	Superintendent, NDAS SRO - WMP
Richard Evans (RE)	Chief Inspector - WMP
Chris Miller (CM)	Bikal Representative
Samantha Todd (ST)	Data Analytics Lab - WMP

Apologies:

Andrew Howes (AH)	Ethics Committee
Jonathan Jardine (JJ)	Chief Executive - OPCC

1	<p>The Chair welcomed everyone to the meeting.</p> <p>A quick update was given on recruitment for new members and Committee members were encouraged to promote the recruitment opportunity to relevant contacts and networks.</p>
2	NDAS update and committee questions



In this presentation **The Presenter** brought back the violent crime use case for discussion. This has been brought to the committee on previous occasions and been instructed to proceed with minor amendments and feedback to consider.

The Presenter gave a detailed explanation of the feedback raised in last committee meeting and how this feedback has now been addressed and incorporated into the project.

The following feedback on the paper was given:

- **A Committee member** verified if corroborated intelligence is far more likely to be given credence. **The Presenter** confirmed that this is in the majority correct. **The Presenter** included the caveat that if the source grading is 1, it is reliable information that does not necessarily need to be corroborated before it is included.
- **A Committee member** questioned the process of changing intelligence levels and questioned how things move between levels. **The Committee Member** believed that there is a weekly update of grading. **The Presenter** established that the intelligence is not specific to the NDAS project, instead the same procedure is routine within WMP. The grading is given by intelligence professionals at the point of receipt. Risk assessments are undertaken to ensure that individuals are protected if they can be traced as the source. **The Presenter** clarified that the intelligence grading is never updated – it remains as originally allocated. Separately, NDAS receives a data transfer from West Yorkshire Police (WYP) every 7 days to ensure that insight provided through the dashboard is based on up-to-date and relevant data. The data transfer received from WYP is separate from the issue of intelligence grading.
- **A Committee member** raised concern in regards to flagging safeguarding issue and referrals - it was expressed that ensuring vulnerable people would be flagged as requiring some sort of response to safeguarding risks, such as ensuring appropriate partner agency referrals or police action, was a serious ethical issue as a failure to highlight and act on this information could present a major missed opportunity. **The Committee member** asked is there would be follow up to see if anything had been actioned? **The Presenter** confirmed that this is addressed in the presentation *Agenda Item 2.2*.
- **A Committee member** raised an interest in the Presenter's reflection on how far the dashboard/ NDAS is making to valid contribution to crime and asked for examples. **The Presenter** confirmed that in terms of the violent crime use case, there are five areas of business that NDAS seeks to improve. In terms of quantifying data, the use case uses the crime severity score from the ONS (Office of National Statistics) in order to identify harm



	<p>caused, and ensure that resources are focussed best where the harm is likely to have the most effect on communities.</p> <ul style="list-style-type: none">- A member of The Committee questioned what is meant by the term <i>fairness</i> which is incorporated in a description on page 13, where it is asks, 'would the operation of the algorithm be considered fair?'. The Committee member asked if we should be conscious of things like conscious and unconscious bias, and issues which any algorithmic procedure would need to safeguard against both in terms of victims and perpetrators. The Presenter illustrated <i>fairness</i> through an example related to modern slavery and reassured the Committee that individuals would not be identified, purely, based on protected characteristics. The Presenter explained that there is a significant, independent, academic evaluation being undertaken to ensure that the potential biases that may ensue are identified and understood. However, in terms of the violent crime use case there is not a specific evaluation from an academic perspective that is intended or expected at the moment. In terms of fairness, there is nothing specific to NDAS that can be identified as bias and the use case for violent crime perspective, represents and shows insight into data that the Force already holds. The Presenter also affirmed that there is not an algorithm of search that looks to predict an individual's propensity to commit crime or anything related. In essence, this use case is simply a way of presenting information that the Force already holds, and is designed to save a significant amount of time for analysts who would ordinarily present this data (such as crime type by location) manually.- A Committee Member raised one final statement clarifying that outputs from the system would not specifically flag anything, instead this information would feed into the current system for identifying the safeguarding risks as set out on the slides of Agenda Item 2.2? The Presenter pointed out slide 19 of the Agenda Item 2.2 which illustrates the level of activity that takes place at various different stages to identify a number of risks including but not limited to safeguarding risks. The Presenter also affirmed that following the previous meeting steps have been taken to consider building a proactive automatic safeguarding flag (such as in relation to young vulnerable people) when a certain connection is made or a certain insight is provided. However, The Presenter also confirmed that this would not be possible in the short to medium term and the favoured approach was to maintain and use well established, existing Force policy and process to identify and flag safeguarding issues to end users as described in the presentation provided.
3	Bikal presentation and committee questions



Committee member Richard Evans presented on Bikal with representatives from Bikal supporting on the call.

- **RE** summarised the Bikal project and its involvement with WMP.
- Bikal are an external organisation seeking a policing partner to explore the development and use of an algorithmic based tool, which utilises automatic number plate recognition data.
- The proposal brings together academic research, private finance and data from WMP to develop a tool which would identify organised car crime, by identifying certain driving patterns or suspicious driving behaviour associated with organised crime such as number plate cloning.
- This project proposed looking at 12 months of data-based analysis in terms of ANPR, due to this being the only data the WMP hold at the moment.
- It is one of the aims of this project to inform future discussions around technology that could be linked to the ANPR.

Questions and comments from the Committee:

- A **Committee Member** asked for clarification around the data transfer arrangements in terms of how the ANPR data in particular would be used in the development of the algorithm. Secondly Bikal were asked to explain the nature of the algorithm and why a machine learning tool is needed in this particular context, as opposed to something reliant on other forms of statistical analysis? **RE** explained that based on the data retained by WMP, the plan would be to use that data and only process it within WMP using WMP computers with no ability to copy or transfer that data out from the organisation. The algorithm would be used to reference the geographical location of vehicle theft in order to identify links to individuals and other vehicles. A, potential, next iteration of this project would include the ability to deploy operational resources to effectively stop/ intervene in the criminality while it is taking place.
- A **Committee Member** raised concerns over the model of using data to link to individuals without there being further assurance around collateral intrusion, i.e. the model mistakenly identifying criminal behaviour, and intruding on innocent people's lives. **RE** explained that the algorithm is simply looking at car details. In terms of disproportionality, the only data that the algorithm will work on is the registration mark of the stolen vehicle, the time and date that was stolen and ANPR locations. In the process of using the system and matching it to Police data on stolen cars the algorithm will gradually refine and process dealing with disproportionality in terms of success.
- A **Committee Member** asked for more detail on how the model will be evaluated within this trial sample of 12 months? **CM** suggested a number of positives including the ability to identify a vehicle that is involved in a convoy and resultant intervention and prosecution.
- A **Committee Member** raised the technical question, if this was to go live, and there was a flaw in the process, do you have a process for refining this? *For example, if there was a repeated false positive on a certain type a car which would result in certain individual being repeatedly stopped or given policing intervention.* In other areas of law enforcement there's quite



a significant emphasis on reducing collateral intrusion, what kind of emphasis and thought has been given to that in this process? **RE** explained that in terms of, of collateral intrusion the ANPR data will be processed regardless of the Bikal project. Through this project Bikal will be deriving use from the data with limited intrusion as the information will not be made readily available outside of WMP. The additional processing of that data to see whether it's associated with the stolen car was argued to be miniscule.

- A **Committee Member** asked to what extent cost benefit analysis has been undertaken. In predictions regarding the project it has been suggested that there would be a cost neutral approach that Forces maybe would take on opportunity costs. Rather than investigate theft of cars of a certain value and above has anyone in the Force considered investing in situational crime prevention more, or working with possible victims a bit more for the same amount of money? Secondly, to what extent is it feasible to substitute full postcodes for pseudonyms or shorten the postcodes? **RE** explained that in terms of cost benefit there has not been cost analysis done to support a better return from contravention, however there are already routine crime prevention tactics already taking place. **RE** reiterated that certain individuals/ groups can steal numerous vehicles throughout the course of the night. In arresting the individuals/ group they are taken out of commission off which both stops crime and provides as deterrent. **CM** explained that it is possible to pseudonymise the data given to Bikal ensuring that they never receive the raw data. Shortening the postcodes is an option but has technical ramifications and could make the analysis more complicated/ impact the way that we do the groundwork on the algorithm. **CM** shared their concerns over accuracy in pseudonymising and a willingness to investigate the possibilities.
- A **Committee Member** questioned the extent to which this project is focused on speeding up the process of identifying criminal activity rather than improving effectiveness
- A **Committee Member** questioned if there likely to be any kind of prioritisation exercise based on the kind of stolen cars or bandit vehicles identified that the police are most likely to go for? *For example, would vehicles associated with organised crime before be more likely to get attention?* Associated to this query is the concern that this project could accidentally unduly focus on those who WMP have got intelligence around and not necessarily focusing on those that we actually have less intelligence on, but which may be engaged in very serious crime.
- In conjunction with the previous question, **The Committee Member** also asked if there might there be a prioritisation exercise focusing on higher value cars which is not representative as there might be some other lower value cars that are stolen more frequently or have a bigger impact on the victim if they are of a lower income/more reliant on their car. **RE** asserted that it is hoped that the value of the vehicle should have no bearing on the willingness to investigate. In regards to the first concern, there may be times where particular threats are identified and targeted based on the intelligence. You cannot ignore intelligence that indicates a high level of risk around a particular individual or particular group, which could be perceived as prioritising.
- **The Committee Member** Wondered if there is an opportunity here to incorporate what could limit the project in order to link in lesser known



	<p>intelligence and how they might be connected to other serious organised criminals. <i>For example, are their ways of identifying bandit cars, and having further algorithmic analysis of who else those cars are connected with outside of that theft activities.</i></p>
4	Coffee Break
5	<p>Committee advice on NDAS and Bikal</p> <p>Decisions / comments on Bikal</p> <p>Outcome E The Committee requests more information from WMP in order to be able to advise</p> <p>The Committee noted a need for further information and justification for the proposal (including further explanation around how this tool would provide an analysis and benefit to policing that could not readily be carried out in-house) for a special arrangement outside normal procurement processes, bearing in mind the potential for the proposed tool to be deployed on a national basis. It was noted that TransteknIQ Ltd is a dormant company. It was queried why a machine learning model was required, what role machine learning would actually have in this proposed project and what technological advantages the third party provide is offering, and a suggestion made that further discussion be arranged with the Lab regarding potential models that could be developed to address the policing issue identified. This would then enable further consideration to be given to accuracy issues and risks of collateral intrusion.</p> <p>Action – EG and TMC to organise follow-up meeting involving the Chair, Vice-Chair and CT.</p> <p>Decisions / comments on NDAS</p> <p>Outcome B The Committee advises approving the project with minor amendments Recommendations:</p> <ul style="list-style-type: none">- It is recommended that the processes and procedures highlighted in the presentation associated with the use of the system are formalised and developed into an associated policy.



	<ul style="list-style-type: none">- Although it was reassuring for the Committee to hear about the associated safeguarding policies, the Committee emphasised its recommendation that NDAS should further investigate safeguarding flags and how they could be incorporated into the model. It is unclear why this recommendation has not been pursued.- A Committee Member commented that the presentation addressed the Committee's areas for concern. The Committee Member was uncomfortable regarding the onus of safeguarding being displaced away from NDAS. However, reassured by the processes that are there and keen to ensure that the processes are reflected in papers in future. <p>Note: WMP have, since the committee meeting, raised responses to these recommendations to be discussed at the next meeting, with minutes to be published in due course.</p>
6	<p>Short-term MSV prediction (report) – presentation and committee questions</p> <p>Committee member Davin Parrott presented report on MSV Predictions.</p> <ul style="list-style-type: none">- The Presenter acknowledged that this project has been brought to the committee before and a need for further analysis requested and amendments have been made.- The Presenter pointed out an upward trend in most areas of violence since 2012 to presently somewhere around about 69% increase support for that year's level.- Certain hotspots for increase include Coventry, Birmingham, Wolverhampton and to a lesser degree Walsall.- Although the model for predictions remains similar to the model used for knife crime, in the amended approach additional squares have been added essentially doubling the number of squares.- The Presenter indicated between 5 - 12% improvement in the amended approach. <p>Questions and comments from the Committee:</p> <ul style="list-style-type: none">- A Committee Member noted the change in grid size and identified that groupings of crimes incorporate a wide range of different types of crimes. The Committee Member questions if operationally it is useful to make a prediction that is so wide in terms of what the type of crime might be occurring in this particular locality? The Presenter was not a part of discussions on grouping crimes, can only deduce that from an operational perspective this was the information that was wanted.- A Committee Member asked if an out of time sample would be compared with data set? The Presenter confirmed that numerous different



	<p>methodologies were used however, no out of time sample has been used. The results of the analysis are based on test data set extracted from the time dataset, but the moving window element of it includes things that were previously in a test set.</p> <ul style="list-style-type: none">- A Committee Member emphasised the need for sample validation in order to sustain conclusions. The Committee member also recognises that some categories of crime may be too small. Rather than aggregating across all the crimes, there must be some categories of crime that have sufficient numbers for estimated models and aggregation over a small set of crimes. The Presenter acknowledged that discussions will ensue to see how this can be incorporated.- A Committee Member asked for clarification on the next steps of the report. The Presenter confirmed that an output dashboard would be produced once every four weeks and the results essentially beta tested with the Project Guardian team.
7	<p>Engagement of victims of violent crime (report) - presentation and committee questions</p> <ul style="list-style-type: none">- This is the first occasion that this presentation has been brought to the Ethics Committee.- This report should be treated as an interim report with further analysis to establish the potential nature of the relationships between some of the features in the model.- The aim is to understand why so many victims of violent crimes appear to be disengaging from investigation. The conclusions will potentially be used to inform CID during these kinds of investigations.- This is an explanatory model, analysis existing data on victim attrition, so it wouldn't be used for making any predictions. <p>Questions and comments from the Committee:</p> <ul style="list-style-type: none">- A Committee Member asked for clarification on what is classified as successful and unsuccessful outcome for victims. The Presenter explains that defining success happens pre-court (i.e. WMP was able to progress a matter to prosecution or to a satisfactory community outcome) as in the lab they do not have any information available in regards to the outcomes of court cases.- A Committee Member sought to verify what evidential difficulty means as a target. The Presenter explained that this title highlights that the case was closed due to evidence difficulties associated with the victim. The classification 'Evidential Difficulty' refers to the victim withdrawing their evidence.- A Committee Member asked whether there are formal models constructed? The Committee Member explained that solvability depends on a range of other features that were not listed, and confirmed if the data that has been included. The Presenter confirmed that the report did not include everything that the Committee Member queried. The Committee



	<p>Member will contact the presenter with a copy of the data from the Norfolk Constabulary, where a lot more variables were included.</p> <ul style="list-style-type: none">- A Committee Member asked if there would be so much value for using what has been created as a springboard for other colleagues in WMP or a partner organisation to then obtain qualitative analysis as well? For instance, are we confident that victims would corroborate the patterns identified if asked? The Committee Member explains that they are thinking about not just whether the victims code was followed by the applicable office or offices or staff, but Victims Support Service referrals. To what extent did they apply to the people who stay on board? Does it have a positive effect or negative effect? In addition to gaining more feedback on the nature of the response for applicable officers. The Committee Member would encourage the Presenter to explore more opportunities to triangulate their analysis with qualitative feedback to ensure maximum benefit is derived from the patterns they believe they have identified. The Presenter agrees that this is potentially an area where this sort of work can add greater value, and more understanding could be obtained in regards to the support offered to victims. There are currently limitations on obtaining data but this is something that could be considered. The Committee Member affirms that the PCCs Victims Commission could be a useful ally and a conversation could be supported between the two bodies.- The Committee supports the engagement of the Victims Commission on this paper. One of the big issues that emerges from research that the victim feels blamed and that's one of the reasons why they don't want to continue in prosecution. Such a valuable piece of research but there are clear resourcing issues around Victims support.- A Committee Member asked if evidential difficulties also a variable that impact on the successful outcome or victim engagement?' The Presenter confirmed that is was used explicitly as a variable in the model construction and would have to confirm any more information.
8	<p>Force Contact Demand in-principle project</p> <ul style="list-style-type: none">- Force Contact would like to know if forecasts can be made in regards to emergency calls; 999s, the 101s, and online web chat to inform resource planning.- Initial investigations show that the number of 999 calls has increased significantly in the last 12 months. 101s have reduced and online web chat has remained the same. <p>Questions and comments from the Committee:</p>



	<ul style="list-style-type: none">- A Committee Member upholds that it is a very sensible area of focus if this analysis is not already happening, as they are aware of the huge issue with level of demands on Force Contact. The Committee Member questions, if there are any risks of creating perverse incentives through the analysis such as having an impact on the balance between quality of responses and timing of responses, i.e. could the identification of longer call times unduly promote pressure to shorten call length despite the potential for wider benefits coming from longer and more diligence call handling. The Presenter understands this problem but cannot offer assurances that from the data available they will be able to take the quality of response into account effectively enough.- A Committee member is keen for more understanding of the data and to establish the extent to which types of calls can be distinguished and if there is a classification process. The Presenter confirmed that the predominant focus would be time series methodologies, plus number of people available, period of year and whether there are contributing factors i.e. a bank holiday. Content is limited to which channel it was received through i.e. 999, 101 or live chat. There is also information relating to abandon calls, how long it took and relationship between the various different channels.
9	<p>Committee Advice</p> <p>Short-Term MSV Prediction</p> <p>Outcome B Advises approving the project with minor amendments.</p> <ul style="list-style-type: none">- This project should be triangulated in particular through a focus on obtaining qualitative analysis, i.e. an understanding of the factors leading to particular spatial patterns for crime, to inform a sophisticated and preventative policing response.- The Ethics Committee can offer support in relation to approaching qualitative data and the PCCs office.- The Committee (DD) has raised the need for out of time modelling to help ensure data is representative. <p>Engagement of Victims of Violent Crimes</p> <p>Outcome B Advises approving the project with minor amendments.</p> <p>-</p>



	<ul style="list-style-type: none">- The Committee Recommends that the Lab considers the addition of qualitative analysis regarding victim experience to enhance the project.- The Committee has also raised the need for out of time modelling to help ensure data is representative.- The Committee recommends considering the incorporation of more factors to assess their relevance.- The Committee also endorses TMC's previous suggestion to engage with the Victim's Commissioner on this project. <p>Action - To ensure communication is opened between the PCC's Victims Commissioner and The Presenter. To invite Victim's Commissioner to a future meeting.</p> <p>Force Contact Demand</p> <p>Outcome B Advises approving the project with minor amendments.</p> <ul style="list-style-type: none">- The Committee recommends that WMP should consider the additional resources that the Lab need in order to provide the depth of analysis needed to create stronger projects, i.e. in order to provide a qualitative analysis that uncovers nuance behind some of the pressures and responses to the demand on force contact.
10	Meeting Close