Science & Technology in Policing

POLICE STAR FUND 24/25

SEMI-AUTOMATED IDENTIFICATION OF SEX-TRAFFICKING VICTIMS AND PERPETRATORS

Summary

This project accelerates the identification and targeting of potential sex trafficking activity. It will develop a new risk tool that will search large volumes of open-source data from Adult Service Websites using the Traffic Jam platform and auto-flag to officers the data of most concern for victim vulnerability and potential criminality.

Organisations

Essex Police
Greater Manchester Police
Marinus Analytics UK

Challenge

Sexual exploitation linked to Organised Crime Groups has largely moved online, hidden in plain sight amongst Adult Service websites (ASW's). This makes the activity less visible in our communities and harder to identify. The scale of online advertising remains high with over 15 million UK ads identified in 2023. The online data landscape means criminals leave a trail that can be investigated, giving visibility to victims who can be traced and safeguarded. The vast amount of data is too time consuming, inefficient and ineffective for police teams to identify and counter this crime by investigating the data set manually.

Innovation or research

Data collected from ASWs, and sex user 'punter' review sites was analysed using the existing Marinus Analytics Traffic Jam platform but whereas the current platform presents relevant data to officers in order of date of appearance, under this innovation, the data was risk weighted and scored, with data thought to indicate the highest risk of trafficking being presented to officers for consideration first. In building the risk model, the partners in the project therefore consulted with those who have lived experience of sex-trafficking, NGOs with relevant expertise and experience, and academics who have conducted research relevant to understanding the signs of sex-trafficking that are present in the online data landscape. Marinus Analytics software engineers wrote software code to reflect the concepts and weightings developed through the risk indicator model. The code was applied to Traffic Jam with testing, feedback and refinement, following initial application by policing teams. A sustained operational phase with the application of the tool was conducted over an 8-month period. This included evaluation 'snapshots' to allow for ongoing assessment, lessons learned, and refinements to the approach.

Findings

Despite significant efforts by all project partners the quantifiable outcomes achieved during the trial were modest. However, a key aim of the work was to learn lessons and point towards future opportunities. In this regard, a valuable set of insights has emerged. While the tool undoubtedly adds capability – a level of staffing resource is required to develop its outputs into actionable intelligence. It seems likely that many police forces will need some persuasion to make this investment amidst other competing demands. The tool quickly identifies connections and automatically build networks of linked material from within the open-source dataset. However, questions and doubts remain over the conceptualisation and construction of 'risk' built into the tool. This relates to the choice of 'risk factors' included within the tool's algorithm, their relative weighting, and the way these might be affected by advertisers' 'marketing' strategies and other factors unrelated to 'actual' risk.
Working with and around the language of risk, can evoke a set of personal/organisational imperatives/obligations for some practitioners, that is not always welcomed and may have potential to generate perverse/unhelpful behaviours.
Future iterations of the tool might move away from 'risk' as a central concept and focus more on the network building functionality of the technology. Listing and providing summary descriptions of active local networks might be viewed as more useful and professionally empowering to practitioners than presenting them with apparent 'risk' they may not fully understand, may be sceptical about, but feel obliged to service.

Next steps

The enhancements achieved to the Traffic Jam tool will be maintained by Marinus Analytics, and rolled out to wider police users in the UK at no additional cost to them. With ongoing governance and oversight, the wider operational use of the tool is required, with ongoing evaluation. Marinus Analytics will lead on the roll out of the tool, with training inputs delivered to end users to explain the additional functionality.