

TACKLING ORGANISED

EXPLOITATION

PROGRAMME

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Strategic Update

Much has happened during the last quarter across both our operational and technical work streams, and I remain proud to lead the national and regional TOEX teams who work tirelessly to support the law enforcement response to organised exploitation. The programme has supported **573 investigations** to date, identified and **developed 30 OCGs, 30 priority individuals** and **14 national vulnerabilities** that were not identified elsewhere in the policing response.

In April, we welcomed DCC Dave McLaren, of Sussex Police, as the new NPCC lead for the National Intelligence Portfolio (NIP), and it was great to spend a few days in force discussing all things TOEX – we will most certainly benefit from his wealth of experience as the programme evolves. I'd also like to take this opportunity to thank the recently retired Chief Constable Lisa Winward for her support whilst she led the NIP.

Following the successful launch of our cloud-hosted Capabilities Environment (App Store) and Translate tool in January, the technical team is continuing to work hard to deploy further tools. These will be available to users this year, providing invaluable time-saving aids in complex investigations, building efficiencies into the investigation process and facilitating the discovery of previously unknown insight. These include a Transcription tool, TOEX Wing It – a tool to research UK in/outbound flight listings, and TOEX Data Analyser & Review Tool (DART) – for the bulk research of comms data. As always, the tools are fully cyber-assured and technically documented for scrutiny and the programme will continually evaluate these ensuring they support policing's business need.



TOEX made a commitment to work with national policing partners and share as many of these tools and applications with wider UK law enforcement as possible, leveraging technical innovation in support of operational policing delivery. I am excited to announce that next quarter we will begin the scaled onboarding of five forces to the Capabilities Environment. This development is breaking new ground and we are extremely proud of our technical team and key industry partners – a fuller update will be available in the next e-mag.

These efforts have been recognised on the worldwide stage with our industry partners Simpson Associates winning the **global 2024 Microsoft Community Response Partner of the Year** as a result of their delivery alongside our programme. This is an exceptional award and demonstrates the dedication, vision and delivery of their effective collaboration with TOEX. I am proud to be leading such an extraordinary team and most grateful for the support of Simpson Associates colleagues, TDCOM Cyber Assurance and the TOEX Technical leadership team.

Thank you again for your continued support and I hope you all have a great summer!

**Detective Chief Superintendent
Kate Thacker**

TOEX Programme Director

Opportunity and impact of AI in policing – CSAE Case Study

Challenges faced by modern policing increasingly support a drive to innovate and a risk appetite to explore how and where Artificial Intelligence (AI) models might be employed to manage demand and mitigate risk. Whether that be - chatbots for control rooms and public engagement channels, video and image analysis to identify criminal activity, or reviewing bulk data to reveal predictive indicators of threat, risk or harm – AI technology needs to be appropriately and securely embraced for the protection of our communities.

In policing, we generally consider intelligence to be the result of an analytical process that reviews information to assess its relevance and reliability. This requires a definition of information - data, facts, or sensory input that have undergone process or organisation to give it structure

and meaning. The process has a goal in mind – informing and enriching user understanding. While intelligence in policing almost exclusively consists of text or visualisations, by widening the format to include other media and even ‘thought’, we might then define the quality of intelligence as being the ability to produce enrichment from various bulk data sources.

Artificial Intelligence is commonly associated with futuristic robotics or generative large language models, but at its core it is simply a recreation of the human intelligence review process carried out by a machine, in accordance with set parameters. Some forms of AI purely react to external stimuli, whereas others learn and improve their ability to attain their goal state, moreover AI processing power provides a scale and scope that is out of reach of the human equivalent.



In 2022, AI burst into the public's collective consciousness with the open release of ChatGPT and the subsequent media coverage of text and image generative AI, but the term was first coined in the 1950s. Since then, competing AI researchers have developed breakthrough ideas that gave rise to multiple cycles of hype and disappointment. This may well be a result of newer AI developments becoming ubiquitous, for example route planning in mapping applications that we use every day, but may not recognise as AI-enabled.

Use cases for AI techniques in policing are widespread - image recognition, natural language processing (NLP), translation, network analysis, predictive methods etc – however, it is crucial to focus on the operational benefits and intended purpose to avoid unintended consequences. Ethical and responsible implementation, audit and defensible methodology, the management of unintended bias, and effective user training are all vital when appreciating that outputs are mathematical calculations rather than statements of fact.

Amara's law states “We tend to overestimate the effect of technology in the short run and underestimate the effect oin the long run”.

TOEX recognises the need for responsible incorporation of AI methods into our advanced analytical products and are leading with way with AI innovation intended to aid the timely management of risk. TOEX has developed AI for the improvement of data quality and disruption of child sexual abuse and exploitation (CSAE) threats in the Eastern Region. The TOEX CSAE Network Risk tool allows analysts to find early warning indicators for missing children with indirect network connections to CSAE risk that might otherwise have gone unnoticed. The tool provides the ability for safeguarding targets to be identified earlier and at greater scale than was previously possible, allowing intervention to take place before the victim comes to police or partner agency attention for involvement in serious and dangerous criminality. Further to immediate





safeguarding efforts the tool also aids in identification of locations and people that appear to be involved in targeting vulnerable children.

This tool relies in part on accurate classification of CSAE intelligence reports on force systems, therefore improving classification accuracy has an immediate benefit to users of the tool, but also force data quality more widely. With data accuracy in mind, TOEX has tested a variety of natural language processing techniques, understanding variations in transparency and effectiveness: these include [‘bag-of-words’](#) classifiers (using both frequency count and TF-IDF vectorisation methods) such as [Naive Bayes](#), [Logistic Regression](#), [Support Vector Classifiers](#), [Decision Trees](#), [Random Forests](#) and [XGBoost](#) as well as a fine-tuned version of [Google’s BERT](#) language model. These have been tested in a standalone environment and will be operationalised in an assured [MS Azure Databricks](#) environment to deliver at scale.

Individuals (victims and suspects) under TOEX investigation will have associated intelligence reports reviewed by the NLP system to determine whether they may have been mis-tagged CSAE – these highlight those that may be missing the classification, whether they have another classification type applied or not. These instances are presented to an intelligence analyst who will review and determine whether a report should be reclassified on force systems. The implementation and evaluation strategy ensures actions directly affecting individuals will not be made solely based on NLP analysis.

The innovative design meets parallel goals of bulk data review that could not plausibly be achieved through any other method, while ensuring decisions are made by analysts rather than full automation. It will improve our ability to focus on the most vulnerable members of society and identify those at risk of slipping through the cracks.

Case Study: County Lines

An investigation by Surrey Police, with support from the SEROCU TOEX team, has resulted in several suspects being charged, in connection with a county lines operation. Surrey Police requested assistance from TOEX after it was identified that children, who were often reported missing, were being exploited by those concerned in the supply of Class A and B drugs.

The TOEX Response

The TOEX team were asked to fill intelligence gaps to identify where the suspects were located, determine whether there were additional suspects and safeguard any further victims.

The team created detailed subject profiles and submitted intelligence and analytical reports based on communications data

analysis completed by the Intelligence Analyst. This information was deconflicted against other operations and facilitated financial, HMRC and DWP taskings.

As a direct result of TOEX's involvement, and following further enquiries by the force, two individuals were arrested at the locations identified. The suspects have since been charged with several offences, including arranging or facilitating travel of another person with a view to exploitation, being concerned in supplying controlled drug – Class A, Class B and Class C. Both will appear at court in September.

The team continue to work with the Regional Organised Crime Threat Assessment (ROCTA) Unit to map the suspects involved as an organised crime group (OCG).



Case Study: Child Sexual Abuse Online

TOEX were tasked to support a force investigation to identify any further victims, after a serving police officer was charged with more than 100 offences relating to child sexual abuse material. Extensive intel work revealed social media links, including Facebook, Instagram and TikTok. By cross referencing images from apps, TOEX was able to identify each victim, then look for further details that may reveal their location. Reverse image searching was

also used to identify town landmarks and school uniform emblems. As a result, TOEX confirmed victim addresses in 25 cases and a further 16 accounts produced solid lines of enquiry. Intelligence packs were completed for each victim and allocated to the relevant police forces to progress. The officer was sentenced to life imprisonment, to serve a minimum of 12 years.



Case study: Courier Fraud of the Elderly

After the arrest of a suspect linked to courier fraud offences committed against elderly victims, TOEX was tasked to analyse 100GB worth of data from two devices seized from the male. This review led to the identification of 2,888 individuals' personal details, including bank accounts & sort codes. In addition, 126 Crypto wallet addresses were identified to

Regional Economic Crime Unit, which were subsequently frozen & assets seized.

SIO - "A fantastic piece of work that I had no idea how we could have progressed without the technical expertise of the TOEX. The product they provided was of the highest quality and greatly enhanced our investigation."

Trialling Tools for Force Use



Ahead of the July release of the TOEX Translate v2 application, and the newly developed TOEX Transcribe tool, the programme's technical team have been completing some operational testing with trial users in Norfolk and Suffolk Constabularies.

Early results indicate a high level of word accuracy (i.r.o 98%) for TOEX Transcribe tool use with feedback agreeing that the tool was easy to use and saved users significant time in preparing transcriptions for prosecution case build.

In addition, the updated TOEX Translate tool adds functionality to users including automated entity extraction and the ability to upload a key-word list at the time of submission for simultaneous search and analysis of the translated text. During the

summer months, we will grant direct access to the TOEX Capabilities Environment and the applications therein to approximately 1,000 personnel across five forces (Norfolk, Suffolk, Sussex, Surrey and West Mercia). Frontline public protection investigators, intelligence officers, analysts and digital media investigators will be able to use TOEX applications for the management and timely response to force threats.

This is a ground-breaking first step in realising a capabilities platform for policing and forms part of an ongoing delivery plan in partnership with the NPCC Data and Digital portfolio.

We will be collating further feedback and insight from the scaled roll-out, to inform next steps and will look to provide a full report in the next edition of the E-mag.

Victims and Survivors at the Heart of Child Sexual Exploitation Taskforce

A year since the Child Sexual Exploitation (CSE) Taskforce was launched by the Prime Minister, the Home Secretary, James Cleverly MP marked the occasion by hearing first-hand how policing is working at a local and national level to protect children from sexual abuse and exploitation and prevent harm.

On Monday 20 May, Mr Cleverly visited Essex Police HQ where he met representatives from the TOEX Programme, Hydrant Programme, as well as local and national third sector organisations who work alongside forces to ensure a joined-up approach when supporting some of the community's most vulnerable victims. He then joined student officers at a bespoke

CSE awareness training session before meeting with senior investigating officers who head up some of the most complex CSE investigations in the country.

TOEX Director, Detective Chief Superintendent Kate Thacker, highlighted how TOEX used highly skilled intelligence and analyst resources as well as data insights to reveal how offenders targeted, groomed and enticed youngsters to share illicit images of themselves online in two group based CSE investigations that were referred to TOEX from the Taskforce. The methods revealed 28 more victims in these two cases alone and 16 other children who were safeguarded as a direct result.



Ian Critchley QPM, National Police Chiefs' Council lead for child protection and abuse investigations, said: "Since the Taskforce was launched, significant strides have been made to enhance the policing response to CSE investigation as well as co-ordinate best practice and guidance to further protect victims and disrupt perpetrators, through working closely with forces such as Essex.

"Sadly, we know that CSE in many forms is still prevalent in our communities. The way we listen to, and support victims and survivors of these most abhorrent crimes is key to building on and maintaining the progress we have already made through the work of the CSE Taskforce and dedicated force teams. I hope this assures victims that when they take what is often a difficult decision to report to police, that they will be treated with empathy and respect and with the utmost professionalism. We are committed and dedicated to bringing more offenders to justice of these appalling crimes, wherever and whenever they have been committed and the taskforce are supporting force operations across the country.

"While it is important to acknowledge how far we have come particularly in the last 12-months, it is essential we continue to learn and make changes to help inform and influence all our work, in particular working alongside children's

services and valued third sector partners in encompassing the voice of victims and survivors in all we do.

"We are not standing still. It is incumbent on us all in society and different communities to prevent these offences that have a lifelong impact on victims. We remain dedicated to ensuring we identify, protect and support victims and are committed to the relentless pursuit of offenders to bring them to justice."

By May 2024, TOEX had supported 107 CSAE investigations – 59 of which are group-based and 25 recorded as CSE threats on the Serious and Organised Crime master list. These have led to 174 recorded disruptions (prepare, prevent, protect, pursue) and the identification of threat that had not been recognised elsewhere in the system (four organised crime groups or priority individuals and almost 700 intelligence reports). Approximately one third of all TOEX demand relates to the exploitation of children and young people, 55% of which has a multi-force, regional and/or international footprint, supporting the necessity for a coordinated, borderless response.

Click [here](#) to read more on the CSE Taskforce.



And the Winner is...



We would like to congratulate our industry partners Simpson Associates, who have won the **global 2024 Microsoft Community Response Partner of the Year** as a result of their delivery alongside our TOEX Technical team.

The Community Response Partner of the Year Award recognises innovation and unique services or solutions based on Microsoft technologies, that are helping to solve challenges faced by communities and making a significant social impact, with award entries made by companies from over 100 countries across the world.

TOEX is proud to work in collaboration with Simpson Associates, developing the means to support policing's business need with the creation of technical enablers in the fight against organised exploitation.

TOEX Director DCS Kate Thacker said, "The launch of the TOEX Capabilities Environment in January marked a significant and ground-breaking development for policing - delivering industry innovation to force investigations, whilst also refining and developing tools capable of generating

significant efficiencies in time and resourcing.

"The ongoing work of TOEX and Simpson Associates will continue as the programme looks to develop further and share these tools and applications with wider UK law enforcement - delivering technical innovation that meets the needs of real-world operational demand. These tools will make a direct and positive impact on the way policing meets those threats."

Giles Horwood, Managing Director at Simpson Associates said, "Simpson Associates' work with the team at TOEX has been a true partnership. Working together on the AI tools within the Capabilities Environment and the TOEX Data Platform has enabled us to enhance the work that takes place within criminal investigations. I take pride in knowing it's having such a positive impact on tackling crime and making a real difference to communities."

Interesting Reads and Useful Links



Action for Children has published a report after commissioning a review into how we can end the crisis of children being criminally exploited.



The National Crime Agency (NCA) has issued an alert to schools across the UK about financially motivated sexual extortion or 'sextortion'.



The Internet Watch Foundation (IWF) has published its annual report analysing the trends and data around child sexual abuse material online in 2023.



The Government has published its response to the consultation on introducing a mandatory duty in England to report child sexual abuse.



Ofcom has published two reports looking at children's media habits and attitudes across the UK in 2023/24.



The Home Office has published an evaluation of the Independent Child Trafficking Guardian (ICTG) service in England and Wales, covering the period May 2021 to April 2022.

Upcoming Partnership Events



The Investigator: Digital Investigations Workshop – 12 July 2024:
FREE EVENTS | The Investigator (the-investigator.co.uk)



NWG Network and Lucy Faithfull Foundation: Child sexual abuse and exploitation - prevention, emerging trends, and themes - 16 July in Birmingham:
www.delegate-reg.co.uk/nwglff2024/



County Lines Digital Conference - 17 July 2024:
County Lines Digital Conference - Westminster Insight



Women in the Police Conference - 27 September 2024:
Women in the Police - Westminster Insight



Notes

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