

TOPICS for i-LEAD INDUSTRY DAYS

1. OSINT

a) Increase automatic capability of OSINT tools

Practitioners are still required to input data and search assignments manually, which is labour and time intensive, the result of this work is highly dependent on the competency of the OSINT officer - e.g. experience, skill, knowledge and ability. Currently, there are no artificial intelligence or self-learning computer systems that can help with this activity.

2. MOBILITY FOR OFFICERS

a) Police vehicles

Cars need to be more suitable for officers who wear lots of technology. Body worn technology means that officers are spending more time in vehicles and therefore these vehicles need to be adapted to suit. The physiological effects of wearing technology should also be researched here. All types of vehicles should be considered for all terrain types, e.g. motorcycles and snow motorcycles. Mobile solutions within the car should not be a duplicate of the office environment, they should be true mobile solutions. Vehicles should have the capability to mirror an officer's handheld tablet or phone to the car monitor.

b) Drones

Drones should have the capability to be used when: helicopters are not available, in situations where a crime scene must not be disturbed, prior to deploying a human being to a scene, firearms operations, patrolling streets, surveillance operations, accident recording, and mass operations; such as football games and festivals. Be able to be recharged while in the field e.g. the roof of a bus or car.

c) Facial recognition system

Next generation of facial recognition technology should be that which can be used by the mobile officer.



3. PEOPLE TRAFFICKING

a) Online speech translation tool for different languages

A tool that can help overcome the language barrier between police officers, witnesses, victims, and suspects. An improved capability in this area would ensure better efficiency of police time, which is often spent looking for an interpreter, and also the money spent on interpreters.

4. INTELLIGENCE ANALYSIS

a) Intelligence analysis in the context of Artificial Intelligence development - Artificial intelligence (AI), if designed and used properly, may become a central technology empowering the law enforcement authorities to face effectively the new challenges. It is highly relevant to foster the steering of AI in security research at the EU level, centralized solutions related to the quantity, quality and storage of data needed, and the development of EU standards in the domain of innovation and industry for security. Intelligence gathering is a central function of law enforcement and a critical resource for enabling effective and efficient investigations. Artificial intelligence technologies enable law enforcement to overcome this challenge by accelerating the processing of information. With [deep learning techniques](#), investigators can leverage AI-backed solutions, which process raw data and structure it into indexes and dashboard visualizations for easier analysis and interpretation. When organized into easily interpretable dashboards, data can become searchable, quantifiable and actionable. For investigators, this means utilizing each digital data source to its fullest potential, accelerating the time-to-target, reviewing more information with the same – or less – manpower and increasing operational efficiency with Big Data.

5. EMERGING TECHNOLOGIES IN DNA

a) Rapid DNA - Faster Results

Faster results would be very advantageous, although some specialists are concerned about maintaining the integrity of DNA evidence. There are expectations of faster results and these are increasing all the time, with investigations becoming more reliant on DNA evidence. Currently, DNA profiling is very slow and bureaucratic. Some LEAs are testing Rapid DNA, while others are not able to fund the technology. There is an increased concern that as the chemistry becomes more sensitive, at scene rapid DNA technology is more prone to contamination.



b) Body Fluids - Automating the Stain Search

Locating bodily fluids on items, and the scene of a crime, is a very time-consuming task. The automation of this process would be of great value. Presently, this is carried out manually using light sources, however, automation of the process could come via a type of non-destructive scanner. Such scanner could pass over the item of interest and give an indication when the bodily fluid is detected. At the scene, a handheld device could be used for full spectral analysis of DNA material, and perform a quality check regarding the presence of DNA. This could save time sending a sample to the lab when it isn't necessary.

