



INTERPOL

Innovation SNAPSHOTS

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▶ MONGOLIA MODERNIZES RESPONSE TO VIOLENCE WITH ID-LINKED INCIDENT REPORTING

The National Police Agency of Mongolia has significantly enhanced its approach to tackling domestic violence and crimes against children through an upgraded Incident Reporting Program. Previously, the system only recorded basic details such as phone numbers and home addresses, which limited its effectiveness in tracking the frequency and history of violent relationships. Responding to this gap, the Information, Analysis, and Rapid Response Department has upgraded the program to register domestic violence perpetrators by linking incident reports to their national identification numbers.

This centralized system facilitates quicker monitoring and intervention, ensuring that offenders cannot easily evade accountability. To increase public awareness of the improved system, a brief video was shared on social media, and Mongolian news outlets including UBN.mn, GoGo.mn, Arslan.mn, Zarig.mn, and Zaluu.com published articles on the update – gaining nearly 4 million views and a wave of positive community feedback, reinforcing the program’s critical role in safeguarding vulnerable citizens.

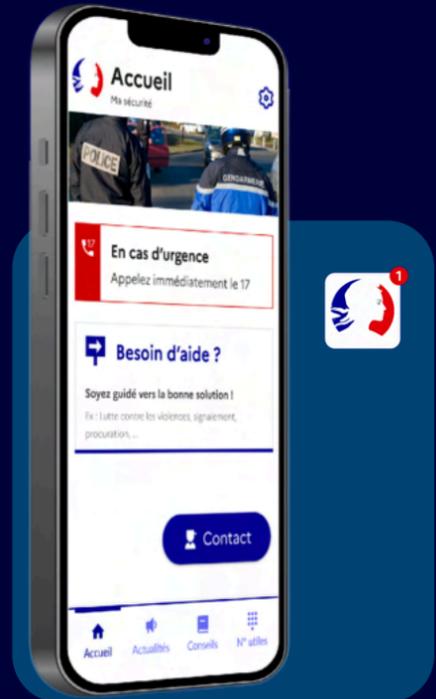
Source: Mongolia's National Police Agency

► SECURITY IN YOUR POCKET: FRENCH GENDARMERIE'S MASÉCURITÉ APP

France's Gendarmerie National Cybercrime Unit has created a mobile phone application called MaSécurité, available on both the Apple and Google Play app stores. The app features a 24-hour, seven days a week chat hotline that allows users to directly ask questions or file anonymous complaints to a *gendarme* (a police officer from the French Gendarmerie).

The app also provides useful information and practical advice such as emergency numbers, fact sheets for victims of crimes such as domestic violence, sexual assault, and cybercrime attacks (for example, a fact sheet for 'I was a victim of X, what do I do?'), and push notifications for national emergency messages concerning catastrophes, terror attacks, and weather disasters.

Source: France's National Cyber Unit, French Gendarmerie; [Ma Sécurité](#).



► UAE'S SHARJAH POLICE: AI AND FACIAL RECOGNITION IN ACTION

Sharjah Police in the United Arab Emirates are implementing smart technologies to enhance public safety and effective criminal investigations. One of the ways in which they are revolutionizing smart policing is by introducing a system that integrates biometric facial recognition technology in their vehicles for patrolling. This technology is embedded in cameras and the window-bars on patrolling vehicles.

This system does real-time data analysis and identification and is connected to the official databases, where the technology can cross-check images against the police watchlist and alerts the authorities if a match is found. In addition to facial recognition, the smart technology can identify licence plates of wanted vehicles, detect speeding violations, and recognize distracted driving, such as using phones or smoking while driving.



As part of the broader initiative to enhance traffic safety, Sharjah Police are leading efforts to integrate AI-driven surveillance and predictive traffic management tools. This initiative includes real-time traffic pattern analysis to manage traffic congestion effectively. Sharjah Police are also leveraging big data analytics to analyse driver behaviour. By identifying patterns of aggressive or distracted driving, authorities can implement targeted awareness campaigns and adjust road infrastructure to enhance overall safety.

Source: [Gulf News](#)

► DID YOU KNOW?

Virtual patrol units with officer body-worn cameras, drones, and a robust network of surveillance cameras provide immediate intelligence to officers in the field. By tapping into surveillance at key locations, analysts can offer guidance to officers remotely. For instance, the Community Safety and Response Center in Tucson, Arizona can deploy drones quickly which allows law enforcement to respond even faster than traditional patrol vehicles. A virtual patrol unit's capabilities extend beyond video surveillance. It can track stolen vehicles using licence plate readers, detect gunfire through sound sensors, and monitor street racing activities.

Source: [GovTech](#)

► TRACING KNIFE CRIME WITH AI

A new AI system developed by the University of Surrey, in collaboration with the Metropolitan Police Service, is set to optimize how knife crime is tackled in the United Kingdom. The system, known as Knife Hunter, uses artificial intelligence to identify knives, trace their origins, and monitor geographical crime patterns.

Trained on a dataset of over 25,000 images, the system can detect subtle features of various knives under diverse conditions, significantly improving the speed and accuracy of weapon analysis. By assisting police in logging and tracking seized weapons, Knife Hunter aids both local policing and policymaking, helping to uncover trends and origins of knife crimes.



With over 50,000 knife-related offences recorded in the UK, this innovation could play a crucial role in enhancing public safety and transforming the approach to tackling knife crime. The system has already been trialled and is seen as a promising tool for wider adoption across other police forces.

Source: [Independent.co.uk](#)

Image: A bin of seized knives. (Source: University of Surrey/Institute for People-Centred AI/PA)

▶ SMART WATCHES REVOLUTIONIZING CRIME SOLVING



A study conducted by the Netherlands Forensic Institute has revealed that smartwatches can determine the time of death with an unprecedented accuracy margin of just 30 minutes. This research study established a precise correlation between smartwatch data and recorded time of death through a medically supervised procedure. The increased accuracy in determining time of death can play a crucial role in homicide investigations. Given the widespread use of smartwatches, these devices offer forensic experts valuable insights when investigating deaths.

To validate their findings, the research team studied patients, ensuring an exact comparison between smartwatch data and medically recorded time of death. At least three hours before the expected passing, participants wore a smartwatch, which was removed roughly 30 minutes post-mortem. The study tested three smartwatch brands which were collecting digital traces that were then compared to the official time of death recorded by physicians.

Traditionally, forensic experts estimate time of death using methods such as body temperature analysis. However, these techniques often have an uncertainty margin of several hours because of external factors which impact the effectiveness of these techniques. The smartwatch data presents a significant improvement, narrowing the margin of error and enhancing forensic accuracy. The application of this technology can extend beyond homicide investigations and potentially also provides law enforcement with a more precise tool to determine time of death in accidental deaths and unexplained fatalities.

Source: [NL Times](#)

▶ DID YOU KNOW?

Security at tourist hotspots could be improved by using advanced AI-powered surveillance systems. For example, the Royal Thai Police aim to strengthen public safety and prevent crimes targeting tourists by deploying a system which integrates AI-driven video analytics with global facial recognition databases and cross-border security tools, including licence plate tracking and crowd density monitoring. These technologies are designed to boost proactive law enforcement, with AI algorithms showcasing 98% accuracy in threat detection. The roll-out will focus on key tourist destinations over the next five years, building on previous pilot programs. The Intelligent Video Analytics Recorder system will analyse live video feeds to identify people, vehicles, and suspicious activities, ensuring timely responses to potential threats.

Source: [Biometric Update](#)

▶ TECHNOLOGY BACKGROUNDER: DIGITAL WATERMARKING

Digital Watermarking is a technology that embeds a unique identifier into digital content such as images, audio, and video. This identifier, also known as a 'Watermark', is often undetectable without a specialized software and is unable to be seen with the naked human eye or inaudible to the human ear. Unlike traditional watermarks, which are visible marks placed on physical media like paper or photographs, digital watermarks are hidden within the file itself. The digital content remains visually and/or audibly unaltered after a watermark has been embedded onto the file.

Digital Watermarking is a security measure that is used to protect intellectual property, verify authenticity, or track the use or unauthorized distribution of digital files. Today, Digital Watermarking is most prominently used in anti-piracy efforts in the film industry that has sought to trace the source of illegal leaks of film and other entertainment content.

Recently, a breakthrough development in Digital Watermarking techniques was published by researchers from India, Ireland, and the United States. The proposed Digital Watermarking system using a cellular neural network works by creating a unique 'fingerprint' for each image using the random behaviour of *memristors* (short for memory resistors), which are small electrical components that remember the amount of charge in an electrical circuit. Using this method, information is directly processed within memory, which greatly increases the difficulty of duplicating the watermark, even with sophisticated software.

This has the potential to make Digital Watermarking more secure and tamper-proof. Additionally, research on Digital Watermarking has also pointed to interesting possibilities for artificial intelligence and deep learning models to be adapted and implemented into Digital Watermarking processes.

In the battle against the proliferation of synthetic media ('deepfakes'), Digital Watermarking is yet again emerging as a powerful tool in providing a highly effective way to enhance the security and integrity of digital media and copyrights.

New Digital Watermarking systems are able to embed an imperceptible digital watermark in images, videos, text, and audio created via generative AI/large language models to enable users to identify digital content that has been AI-generated. This digital watermark is invisible to humans and only detectable through specialized tools, even after modifications like cropping or compression. However, recent reports suggest that some users are leveraging tools to remove watermarks from images themselves, which poses a significant challenge in the detection of synthetic media. The misuse of AI tools for removing digital watermarks highlights the challenges of balancing innovative technologies with their responsible usage.

For those interested to learn more about this technology, the INTERPOL Innovation Centre will be organizing a Virtual Discussion Room (webinar) on Watermarking technologies on 25 June 2025. Please contact your INTERPOL National Central Bureau for registration details.

Sources:

["Processing In-Memory PUF Watermark Embedding with Cellular Memristor Network"; The Hindu; Tech in Asia; Google DeepMind; The Bridge Chronicle; The Verge; "Screen Watermark: A novel approach in detecting digital criminals."](#)

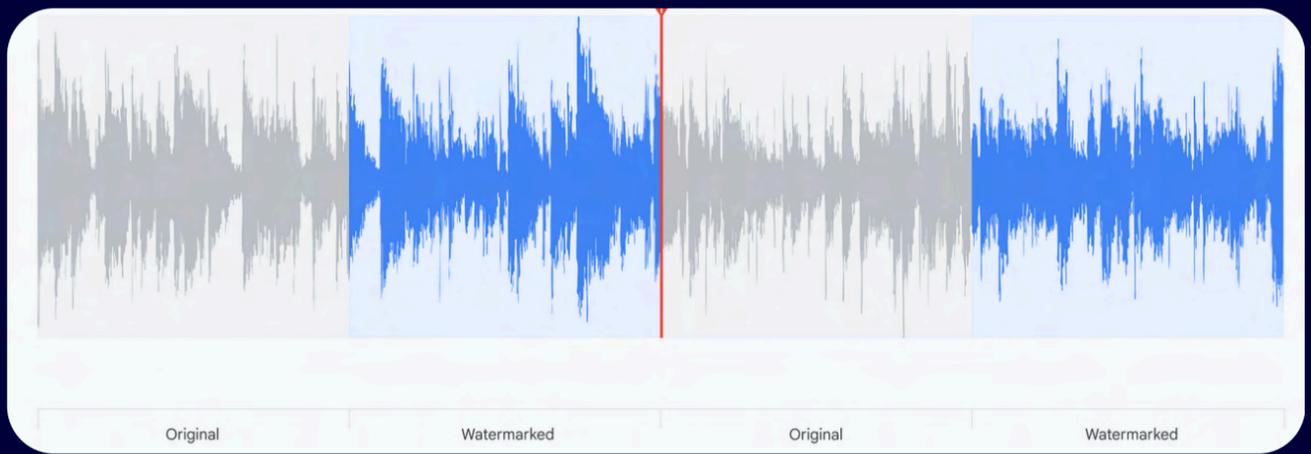


Image: Audio watermarking (Source: [Google DeepMind](#))

SAVE THE DATE: UPCOMING INNOVATION CENTRE WEBINARS

- 3 Apr** AI in DF Series: **Quality Assurance of AI Models in DF**
- 23 Apr** Emerging Technologies Debriefing Series: **Immersive technologies**
- 8 May** Digital Forensics Series: **Car Forensics**
- 14 May** Charting the AI Frontier Series: **Hacking the Mind: Threats and Opportunities of Neurotechnology for Law Enforcement**
- 21 May** Emerging Technologies Debriefing Series: **3D printing guns: solutions and investigation**
- 5 Jun** 3D Scanning/Mapping/Photogrammetry Series: **Introduction to 3D Mapping & Photogrammetry**
- 18 Jun** Data Driven Cities Series – Smart Safety: **Leveraging AI-Driven Mobile Apps for Public Protection**
- 25 Jun** Emerging Technologies Debriefing Series: **Watermarking technologies**

Please contact your INTERPOL National Central Bureau for registration information.



CALL FOR CONTRIBUTIONS

Spotlight your innovations

- ▶ Law enforcement is evolving at an unprecedented pace, fueled by technological innovations and collaborative efforts that redefine policing.
- ▶ The Innovation Snapshots newsletter captures and showcases these transformative advancements and invites you to join the conversation.
- ▶ We welcome stories from law enforcement, industry innovators, and academic researchers that showcase technologies and novel approaches to drive advancement_together.

Submission Guidelines

- Keep contributions to ~400 words.
- Include relevant, high-quality photos with usage rights and credits.
- Maintain a neutral and factual tone.
- Email your contribution to IC-Snapshots@interpol.int and a brief bio of yourself or your organization.



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