Technology: A Double Edged Sword?

Johann Hofmann writes that only a fraction of digital evidence can be analysed

The UK police force is under more strain than ever before. The news that the Home Office is expected to cut police funding by 1.4%, on top of the 2.3% reduction from December, estimated at around £4m, highlights this. Yet as funding decreases crime rates continue to rise. The latest figures from the Office for National Statistics (ONS) estimated 6.6 million incidents of crime in the year ending September 2015, with a 6% increase in police recorded crime compared with the previous year.

One of the biggest challenges facing the police forces right now is the limited resource available to tackle the growing number of incidents. The country’s police force is plagued with the overwhelming volume of evidence they have to analyse each and every day. This is made even more tricky by the amount of evidence that is now in digital format and widely shared online. Where crime used to be monitored by a police officer patrolling the streets, investigations now need to take place behind computer screens. The role of a police officer has changed dramatically over the years and many still struggle to adapt to new technologies.

Managing the task with manual processes is simply not possible; the police force is in desperate need for alternative ways to handle a growing number of evidence presented in each and every caseload.

Digital video content has experienced an explosive growth in the last decade. With a wide range of digital entertainment available to us today, our viewing habits have shifted from TVs to mobile devices such as laptops, tablets and smartphones.
The total video viewing time for UK consumers is on average 212 minutes a day, compared to a global average of 204 minutes and a European average of 173 minutes.

While most households enjoy watching light-hearted video clips on YouTube or a movie night in with on-demand video service, criminals are taking advantage of video sharing technology to spread child sexual abuse content.

More Evidence Than Ever Before
The digital world has created lots of exciting new opportunities, but also made it much more accessible for criminals to operate. Illegal drugs are available for sale on the dark net and child sexual exploitation material can easily be shared and viewed in just a few clicks.

The NetClean Report which surveyed 368 police officers worldwide, highlighted a worrying fact that there is more child sexual abuse material in circulation than ever before. Of those surveyed, 8 in 10 police officers say that the quantity of images and videos that show child sexual abuse has increased during the last three years.

Nearly half (43%) say that violence against children recorded in the images and videos has become more severe. Police officers also added that “more videos, and of young children, are now found. The ratio of video to still images is shifting towards videos.” For most police units, the proportion of videos seized is definitely increasing.

Our survey also points to the view that the rapid increase in video content is spurred by a growing number of smartphone devices with built-in camera and Internet enabled functions.

Click and Snap: Smartphones Spur Video Growth
Mobile phones and videos are becoming vital evidence in police investigations. Fifteen years ago, the computer was locked to a desk. Today, most devices are mobile and nearly all smartphones have video recording functions.

Criminals can easily film, produce and distribute videos on the Internet and the dark web, resulting in far more self-produced video material being circulated than ever before. As one police officer in the NetClean Report commented, he had “experienced more ‘hands on’ offenders who are creating images and videos themselves.”

The sorting of digital evidence in the form of videos and images is an extremely labour intensive process. While the volume of video content has grown exponentially, the manpower to analyse this content effectively has sadly not improved at the same rate. Only a fraction of the video seized – whether it’s video produced by a surveillance camera or personal smartphone – is analysed, leaving pertinent content that could potentially lead to a breakthrough untouched.

Rather than relying on manual processes, investigators are increasingly turning to technology for help. Police officers can now use advanced intelligence tools to speed up forensic investigations. Advanced analytics allow investigators to comb through many hours of footage found on any video recording devices, surveillance cameras, police-worn body cameras or even witnesses’ personal smartphones faster than ever before.

Digital forensic investigators from around the world agree that video is continuing to play a large role in child sexual abuse and other criminal cases. While still images remain a critical part of investigations, video can often provide greater details and a more holistic view of the situation at hand.

Technological advancements, especially those with the capabilities to sift through reams of video footage are giving back valuable time to police officers – allowing them to focus their efforts on solving crimes and increase their presence on the streets. No longer do they need to be bound to an office, nor spend hours and hours manually searching through video footage to solve a case.

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