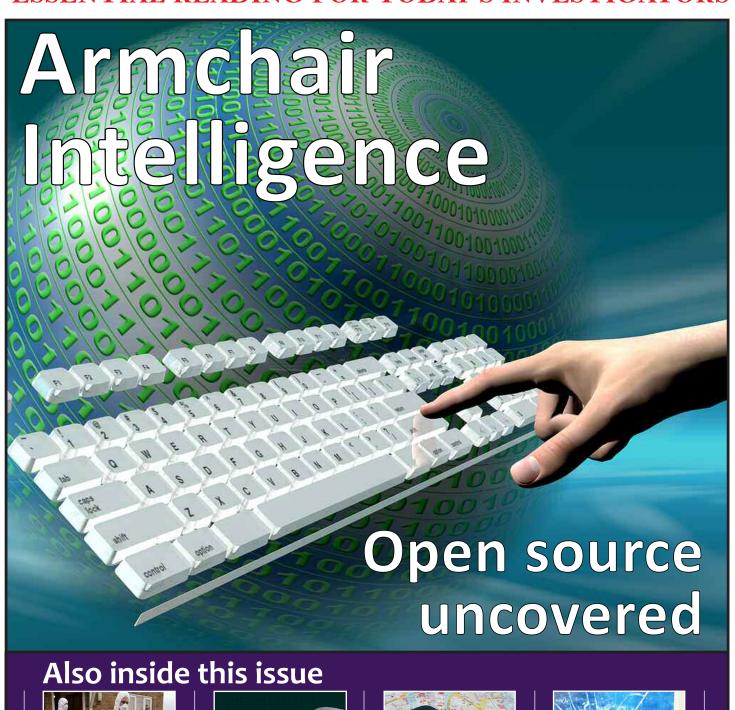
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**ESSENTIAL READING FOR TODAY'S INVESTIGATORS** 





Forensics 24 hour forensic cover



DNA Solving a 45 year old crime



Cell Site Analysis Locating victims or suspects



Volume crime interviewing proceedures



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Investigator and to the start of a busy few months for us with a whole host of conferences covering covert policing, mobile phone forensics, CCTV and interviewing being announced. We hope to see you at our events and thank you all for your continued support.

This latest issue brought home to me the changing nature of the investigation process and how technology and science are now playing an increasingly important role in current cases.

SIOs are now routinely enlisting the help of experts in DNA and cell site analysis, CCTV and open source intelligence to provide them with fresh ideas and new impetus to help them solve often complex investigations.

This work is being developed further in areas such as the East Midlands who are combining their collective might and collaborating on investigations with a view to improving efficiency at a time of finite resources.

The success of the East Midlands Collaboration
Programme and the innovative work of the
Hertfordshire, Bedfordshire and Cambridgeshire
Major Crime Unit provides an important blueprint for
other forces who will no doubt be considering the
benefits of pooling investigative resources in these
cash strapped times.

The fact that the investigative landscape is changing and evolving all the time is both exciting as well as challenging and we hope we can help disseminate best practice and provide a valuable forum to facilitate debate and showcase new ideas in the coming months.

If you have any ideas for best practice features to showcase excellence in your force then I'd be pleased to hear from you.

Carol Jenkins



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wealth of vital intelligence. Investigative tool that can provide a wealth of vital intelligence. Investigator Neil Smith explains how he carries out his investigations without leaving the comfort of his armchair.

As a former police officer working as a private investigator on insurance claims 15 years ago - the majority of my job centred on conducting covert surveillance and interviewing claimants. At this stage - the internet still hadn't really taken off in the UK as we were hampered by a slow connection speed on our dial-up modems.

However, I had done a course with an investigator from the USA who had shown me the potential for the internet to be used within my enquiries and over the next few years I spent more time looking on the internet for information on the claimants I was investigating to see if there was anything

that might help with our enquiry.

Now 15 years later I haven't left the office to make enquiries for about nine years and spend my whole day mostly researching insurance claimants on the internet to see if I can locate any information which might help decide if a claim is genuine or not.

I use what is termed Open source Intelligence (OSINT) which is often defined as: "any unclassified information, in any medium, that is generally available to the public, even if its distribution is limited or only available upon payment".

PEN SOURCE

This is basically any publicly available information but if you thought doing a 'Desktop Internet Enquiry' was just typing a few words into Google then you could well be missing so much more.

# **Databases**

We are not just talking about reports in online newspapers, or company details held by Companies House or property details held by the Land Registry there are literally thousands of different databases on the internet, the vast majority of which are free to access.

And then there are the Social Networking sites such as Facebook, which can contain a wealth of information, if you know how to use it properly. Just because someone has



their account set to 'friends' only, doesn't mean that you can't legally access some of their content or their photographs.

Yes everything starts with a search engine and Google is the best one out there for general searching of a claimant's name and address but make sure you use the advanced search



techniques to limit the amount of returned positive hits.

Searching Google Images may well be useful in getting a



current photograph of the claimant essential for any investigator carrying out surveillance or an interview.

In 2007 when John Darwin the missing canoeist returned from his 'grave' with no apparent memory, it was a mother at home using Google Images who located the

damning photograph of Darwin and his wife Anne in Panama buying a property the previous summer.



John Darwin

Neither the police investigating the incident nor the press reporting on it had done this most basic of searches, which was the first crucial step in the eventual conviction of the Darwins for what was an insurance fraud.

### **Useful websites**

As stated there are many thousands of useful databases online which can be used and on the website I use as part of my training, www.uk-osint.net there are over 400 mostly UK based ones. Some, such as Companies House and Land Registry you no doubt have heard of and most likely already use. Others you would not have or not really understand why you would want to use them. These include:

www.duedil.com – provides Companies House information, with company and directorship searches and even allows you to download a copy of the latest company accounts for free, so no need for you to provide all of your staff with expensive accounts.

www.voa.gov.uk – the valuation office contains a database showing all the residential and business properties in England and Wales. I was once asked by an insurer to investigate a suspicious fire at a residential address. Upon investigation, it was established that this property was partregistered for business use for a slightly dangerous occupation which had not been declared when taking out the policy, which the insurer was then able to use to lessen their liability afterwards.

www.traceiq.co.uk - is so much more than a



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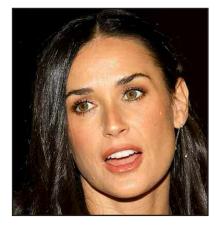
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# **HOW TO ENTER**

Simply name the three famous actresses shown below and email your answers to: competition@the-investigator.co.uk







Picture 1

Picture 2

Picture 3

Terms & Conditions: The closing date for the competition is 31 October 2012. The winner will be drawn at random on 1 November 2012 and the winner will be notified by email. There is no cash alternative available. The editor's decision is final. Email addresses will not be used by any third parties. Only one entry per person.

glorified electoral roll site, with not only occupation and cohabitant details, but phone numbers, directorships and plenty more.

Sites like www.gmc-uk.org (the General Medical Council) and www.lawsociety.org.uk (The Law Society) allow you to check the status of doctors and solicitors.

In 2010 I was asked to investigate a suspicious death claim. Not one of the usual ones where someone had gone abroad to a country where a death certificate can be bought for about £10, but one from the UK. It involved a person who was in financial difficulty and was trying to clear their mortgage by their husband claiming on her life insurance policy.

Admittedly it was not the most professional insurance fraud, with a grandparent's death certificate having been altered but something I was able to add to the enquiry was the fact that the individuals Facebook account was still being regularly updated with photographs.

Obviously not everyone has social networking accounts, which is why when doing online research we don't just search for the subject but also for the people closest to them. You may not have a Facebook account but I bet there are photographs of you on there. Think about all those parties or family events you've attended in the last few years where people have been taking pictures with their mobile phones; do you know where they have ended up?

# International

The other great advantage of doing online research is that from your desk you can make enquiries anywhere in the world. Just about every database or website that we may use to investigate UK claims and claimants is usually repeated across the world, be it;



www.opencorporates.com – which provides lots of free company information from around the world.

www.consilium.europa.eu – the Public Register of Authentic Identity and Travel Documents Online (PARDO) gives examples of passport and identity documents that are issued by all the countries in the EU.

www.infobel.com – gives you links to worldwide telephone directories, meaning some checks on people and telephone numbers from foreign countries can be done freely and quickly.

There are plenty more, it is really just a matter of knowing how to search and where to look. If you are doing investigations, then doing proper research on the internet can offer a very cost effective first step.

Neil Smith of Data locator 2202 www.datalocator2202.com is a retired police officer who has worked as an investigator on many cases over the last 16 years and has trained many hundreds of police officers, investigators and journalists on Using the Internet as an Investigative Tool. As part of his training Neil operates www.uk-osint.net where the favourite's page has over 400 links to useful websites, including those mentioned here.



As forensic evidence continues to play an integral part in criminal investigations – the race is on for investigators to preserve a crime scene and to extract vital evidence that is not contaminated or compromised in any way.

This demand for a rapid response has been recognised by one provider Key Forensic Services who has established its own cadre of forensics experts that are available to investigators 24 hours a day, seven days a week.

Between them the team has attended more than 400 crime scenes and they are leading the way in a number of forensic disciplines such as fire scene investigation, blood pattern analysis, footwear and marks and traces. Paul Whitehouse, Marketing Manager from Key Forensics explained that the success of the team relies on their individual expertise and their ability to work seamlessly with investigation teams on a rolling basis.

"We pride ourselves on the calibre of our people and of the experience they all bring. Although many of them are experts in individual forensic disciplines – they are all multi-skilled and so are able to provide expert advice on a range of evidence types," said Mr Whitehouse.

### 24-hour business

Investigators are provided with one telephone number that is answered by Key Forensic staff who will put them in touch with the relevant expert whatever time of day or night they are calling.

"We recognise that crime is a 24 hour business and that it's vital for us to provide a service that properly reflects the needs of all our customers," continued Mr Whitehouse. "Our team of scientists was set up to provide a one stop shop of expertise and advice to investigators on a rolling basis."

Key Forensic has gone from strength to strength since it started in 2005. Based in

Coventry, many of it's staff have worked for on average ten to thirty years on some of the highest profile criminal cases in the country.



# **Expertise**

Forensic Scientist Steve Harrington has attended more than a hundred crime scenes during the past 15 years. He is an expert in body fluid, body pattern analysis, DNA and fibres and has worked on a number of major cases including recent a double murder in Kazakhstan.

His main advice to investigators is to call on the expertise of a forensic scientist from the outset to avoid any vital information being lost or disturbed.

"Having been involved in cases where I haven't been called out until later – has really highlighted to me the benefits of becoming involved as soon as a crime has been committed," he said.

The role of the forensic scientist depends on the nature of the case and the requirements of the investigation team. They might know what evidence they require from the outset or could be looking to the scientist for advice on what the best objects are to target for evidential purposes.

"You might attend a crime scene having been asked to look at the blood but you can often come away recovering fibres and a whole host of other evidence you think is relevant to the crime," explained Mr Harrington.

Blood pattern analysis can often reveal vital information about the nature of the crime and whether or not any wound was self-inflicted or carried out by an assailant.

"I had one case where a defendant said that a person had been injured in the lounge but on close inspection I didn't find any blood pattern to support this. As a result, I formed the opinion that the crime occurred elsewhere in the house."

Mr Harrington said that fibre evidence is becoming more and more useful as a way of proving contact between individuals but that it was often challenging recovering such evidence in sometimes cramped conditions. His job doesn't end at the scene - he might often be required to provide additional evidence or expert comment years after a crime is committed.

"Turning up at the scene is just the start. I might be required to give evidence in court or brief an investigation team months or years after I attended the original scene. This is where experience is vital as you only build up your expertise by attending numerous scenes that each time can often test your skills and expertise to the limit."

### Fire forensics

One growing area of forensic expertise has been in the area of fire and arson. Dan Matthews is one of two experts working for Key Forensic in this area.

He admits his job can be challenging but fascinating because offenders might have deliberately started a fire to conceal a crime or for some other motive.

"My main task is to look for the cause and origin of the fire. This can vary from accidental causes to deliberate attempts by someone to commit a criminal act," said Mr Matthews.



One of the tell-tale signs is if the forensic expert can prove the origin of the fire was started in more than one place as this almost always invariably points to arson.

Mr Matthews, who has been a forensic scientist for 14 years, explains that it can often be a real challenge to preserve the integrity of the scene and evidence when significant damage has occurred to a property.

The fact that fire fighters have attended the scene first can also be a challenge as their main role is to extinguish the fire and make sure it doesn't re-ignite. This can sometimes compromise valuable evidence but is a necessary part of fire fighting.

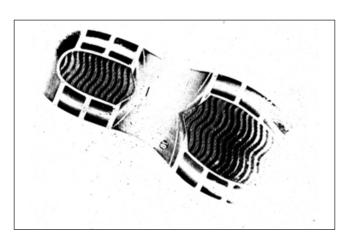
"Fire fighters will sometimes flip off the trip switches as a precautionary measure to ensure the fire doesn't re-ignite and make the scene safe, but if these are left on they can be useful in helping us pin point areas of origin," he said.

"They might also pile up furniture from a room in a field or garden and it can sometimes be challenging trying to reconstruct where the furniture was originally placed."

Mr Matthews also takes time to build up as much background as he can from the investigator to get an indication of whether the information those who were present at the scene actually matches up to the forensic picture the scientist has pieced together.

### Marks and traces

His colleague Adrian Downey is an expert in marks and traces and has been involved in some innovative work in this area over the past 30 years.



He explains that footwear impressions can provide "conclusive evidence to link an individual to a scene" and so the evidence can be quite compelling.

Even though there are hundreds of different styles of footwear made by hundreds of manufacturers, Mr Downey explained that vital evidence can be gained from the unique tread on the footwear. This is down to the fact that we all wear our footwear differently and so this can affect the look of the sole and provide a unique imprint.

"As soon as you walk around in a shoe its sole begins to acquire wear and damage marks with the potential to create a unique imprint," he said.

Mr Downey has attended numerous major crime scenes where he has managed to identify footwear impressions in blood and dust that can prove a suspect was present at a scene.

He has used an electro-static lifting technique to obtain footwear marks that are invisible to the human eye because they are so feint.

"A suspect might insist that they haven't been at the scene and it can often be straight forward to use footwear marks to prove they were at the scene. Where it can prove complicated is if they admit they were at the scene but deny committing the crime, in which case it may still be important to check their account of their movements by tracking their footwear impressions at the scene.

Other evidence such as marks on coins can link different counterfeit coin as having a common source of production. Fragments of glass that might be present on clothing could indicate if a suspect has been close to a breaking window. Paint evidence might indicate if someone has been knocked over by a car and accelerant residue from petrol, paraffin or diesel might indicate how a fire started.

Mr Downey was involved in one case where he wanted to see if a milk stain on a bed was caused by a particular quantity of milk alleged to have been fed to a baby after an injury had occurred to the child. He constructed a series of experiments to estimate how much milk would have produced such a stain.

"The key to becoming a good forensic scientist is to build up experience. All of the cases we get involved in are in some way unique and there is no way that anyone would be able to train you in such cases as the milk stain case.

"However, experience allows you to draw on past cases and it gives you the confidence to try new ideas and work alongside the investigation teams to achieve the ultimate goal – to build up enough evidence to prove or otherwise that a crime has been committed or a particular individual has committed a crime"

For more information go to www.keyforensic.co.uk

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The Investigator is hosting an exciting conference aimed at SIOs and investigators who want to develop their skills in Investigative Decision Making.

The conference will look at the fact that public scrutiny of major crime investigations has never been higher and SIOs are now finding themselves increasingly accountable for every action and decision they take.

Advancements in forensic science, technology and the proliferation of experts has meant there a now far greater expectations placed on SIOs about what an investigation should reveal. This is turn emphasises the importance of sound decision making.

The conference will feature best practice case studies and cutting edge research that will explore the following areas:

- What factors influence decision making?
- How can SIOs and investigators in general make more effective decisions?
- What inferential processes do SIOs engage in during the 'golden hour' and throughout an investigation?
- What factors negatively and positively impacts decision making?

£145 per delegate

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- The place of decision logs in investigative decision-making exclusive research, Prof Thomas Ormerod and Dr Coral Dando, Department of Psychology, Lancaster University
- Decision making in Operation Topez, a child death investigation Det Supt Peter Jones, Gwent Police
- Inferential decision making during the golden hour of a homicide investigation, Dr Michelle Wright, Senior Lecturer in Forensic Pyschology, Manchester Metropolitan University,
- Decision making in historic cases Operation Highfields the murder of Sally McGrath Det Supt Jeff Hill and Chief Inso George Barr, Cambridgeshire Constabulary
- 'To Video or Not to Video: A Senior Investigating Officer's Decisions Concerning Significant Witnesses' Andy Gowans, Northumbria Police

# **BOOKING DETAILS**

Costs:

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- Conference runs from 9.45am till 4.30pm (Registration starts at 9am)
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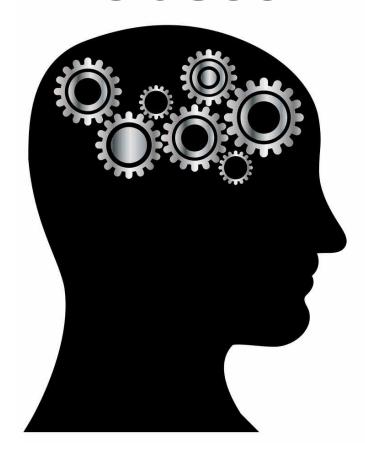


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# Thought **Process**



When interviewing in volume crime cases interviewers need to develop their skills in an overlooked component of the PEACE interview framework - the evaluation element. Gary Shaw reports on this vital area of the interview process.

Evaluation should be seen as an integral part of an interview process, just as much as any of the other phases that make up the structured approach to interviewing victims/witnesses or suspects.

This evaluation should take place on an

ongoing basis as the dynamics of the investigation and interviews unfold. There may be little point in carrying on regardless with a plan that requires reviewing when new sources of investigative material are obtained.

# This evaluation process can be divided into the need to evaluate:

- The nature of the information obtained from the interview
- The whole investigation in the light of the information obtained
- The interviewer's performance

## Evaluate the nature of information obtained

Taking the time to consider exactly what the interviewee has said or not said is essential before determining what the next appropriate course of action should be. This can be achieved by reviewing the notes that were taken, discussing the process with other colleagues or by listening or viewing the interview record.

Often this review can be accomplished by posing a series of questions and evaluating the answers.

- Were the initial aims and objectives as outlined within the interview plan achieved?
- Were these revised during the interview? If so, why?
- Place the points needed to prove the offence(s) in question been covered?
- <a>?</a>What new information has been provided?
- Ils this consistent with other investigative material that has already been obtained?
- Has this identified any inconsistencies or gaps that need to be resolved?
- Are there further enquiries that have to be made before the investigation proceeds?
- Should a further interview be conducted with the interviewee at this stage?
- Does a further interview need to take place at a later time?

This will also assist if others need to be briefed regarding the interview contents, whether it is to other enquiry team officers or decision makers.

# Evaluation within the context of the whole investigation

The previous questions will assist the interviewer to assess what impact the interview has had on the investigation and what action is then required. This will assist in considering the following;

- The investigation priorities might have changed as a result of this interview.
- The offence that the victim is describing may not actually be the one that was reported. For example the robbery may now be a theft and an assault.
- The person suspected of assault may now appear to have been acting in self-defence.
- The interview may have given you new lines of enquiry to follow, such as the involvement of another person not previously known about.
- Confirmation and the strengthening of the interviewer's previous view of the investigation.
- New material may have been obtained from other sources that requires scrutiny and comparison.

# In the case of interviews with suspects the following questions should be considered

- Should the suspect now be eliminated from the enquiry?
- What evidence exists to support the allegation that the suspect committed the crime?
- Should a further interview be conducted?
- Should the suspect be released in order that further enquiries are conducted prior to a further interview?
- Is there sufficient evidence to charge the suspect with an offence?

# **Evaluate the interviewer's performance** In order to continually improve their

interviewing skills an individual needs to learn from experience. This means that in addition to evaluating the material obtained the interviewer must also evaluate their own performance from beginning to end:

- What did they do well?
- What could they done better?
- What are the identified areas for development?
- Provided the individual acquire these additional skills?

The interviewer should look back at the planning and preparation to establish the impact that had both positively and negatively on the resultant interview.

The conduct and style of questioning should be examined in order that the overall performance can be evaluated to identify further development if necessary.

When interviewers are working with a colleague, feedback should be sought and given on each others interviewing styles.

## **Supervision**

Forces should have a formal evaluation and supervision process where trained supervisors examine interviews, give feedback and advise on how to develop interview skills.

Supervisors have an invaluable role to play in developing interviewing skills of their workforce especially in the early years of their service.

To ensure that effective interviewing techniques are maintained supervisors need to be fully conversant with the adopted techniques and approaches themselves. There seems to be little benefit in requiring an untrained supervisor to give feedback to a trained officer.

Peers and colleagues may also assist in the

evaluation process easing the burden on supervisors where applicable.

The importance of adequate planning and preparation before any interview has been highlighted and the role of the supervisor is an influencing factor at this stage.

Supervisors should actively encourage and allow officers preparation time with the type of offence and circumstances surrounding it dictating the appropriate amount of time to be spent on this.

Whether it is an interview of a victim, witness or suspect, supervisors should ensure that their officers understand the purpose behind the interview.

The interviewing of all categories of individuals is increasingly under more scrutiny at court and supervisors have a responsibility to ensure that interviews are conducted professionally.

Supervisors where possible should play an active part in the planning stage and they should be aware of an officer's strengths and weaknesses gauging their involvement accordingly. For example an individual new to the organisation may require more supervision than a person who has been employed for fifteen years.

Likewise the fifteen year individual who has recently returned to perform an operational

function may need extra support and supervision.

The use of a written interview plan in deciding how to structure an interview will assist both the interviewers and their supervisors.

A supervisor who has other responsibilities may not be present while an officer completes this plan but may be in a position to review it before an interview starts.

Unless the interview is visually or audio recorded it will be the only way that the supervisor will be able to observe the officers behaviour giving appropriate feedback if necessary.

Although checking through a written witness statement may give some indication as to the how the interview was conducted in respect of the detail included within, it still does not show how the questions were posed or how the interviewer conducted themselves.

Investigators have a responsibility for their own self development to ensure that they remain competent and clearly this would be strengthened by appropriate supervision with the leadership, support and intervention that this warrants.

This article featured in issue 6 of The Investigative Interviewer magazine. For subscription details please see below.





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# Former detective Andy Townsend assesses the impact that cell site analysis can have on an investigation.

Since the turn of this century, the sceptics have announced that the criminals will become wise to the use of phone analysis, they will 'drop' their phones or they will use 'dirty' phones that cannot be attributed to them....the criminals will become technically aware and avoid capture through the avoidance of generating telecommunication data. Readers with a sceptical view need read no further as all serious crime and criminal investigations continue to rely on evidence from call data records and with the exponential rise in the use of smartphones and data connections, more so today than ever before.

Should it therefore be recognised that Cell Site Analysis is the modern 'DNA' of evidence? In truth, no. Of course we appreciate that mobile phone call data records are comparatively a new addition to the 'tool box' of the detective but we need to

fully understand how call data records may influence or enhance an investigation, it is not a case of replacing traditional investigative methods with Cell Site Analysis. It is often the case that suspects are identified prior to the phone data becoming available, but not in all cases. Occasionally, a phone of importance may be identified but not attributed to any known person. Regardless, the phone data will show aspects of contact between significant persons and reveal cell locations that handled calls during periods of interest. So how does Cell Site Analysis progress the evidence or intelligence?

The location of masts and the direction and coverage of cell identities may assist investigators in identifying potential events of interest, but these will rely on other information being known or thus to be established, anything less is pure guess work

or an inference. Frequently data is compared to ANPR captures or CCTV images and then the story may begin to unfold. Witness accounts, surveillance records and suspects interviews can all be considered alongside the phone records, which provide an accurate, reliable timeline.

As you will have read, so far there has been nothing remarkable in the introduction of this relatively 'new evidence' and it would be fair to say that evidentially it may be described as supportive or corroborative of circumstances already known to the investigators. If the last comment is accurate, then many a prosecuting counsel may be delighted as the testament of witnesses can be further scrutinised as to their truth or bearing.

So when does the evidence become that of opinion and then provided by an expert? The connection of mobile phone handsets to the Network is subject to the radio frequency coverage of antenna located on cell site masts. The areas of coverage are influenced by many factors; topography, building clutter, mast height and positioning, etc. There is no standard coverage area to any cell site, although this is one of the most commonly asked questions.

A suitably qualified expert would be able to use their knowledge and experience in commenting on potential or likely areas of coverage of any cell site but ultimately would need to rely on radio frequency surveys to provide robust or specific evidence. There is much discussion as to the manner in which surveys ought to be conducted and even whether the person undertaking those surveys should be an expert or not. I am sure that all those who hold differing opinions will continue to disagree on best methodology, however it should be understood that whatever method used should be fit for purpose, i.e. the methodology used should

be relevant and proportionate in order to answer the specific issues accurately.

In the same way that no two serious criminal investigations are the same, then there is not an 'off the shelf' solution as to how cell site analysis should be conducted. It is the investigators who identify the matters that require the opinion of the expert and the parameters of the analysis should be established prior to the work being carried out. It is only at this point that the expert should consider their methodology in order to achieve the appropriate production of a report, including the need to conduct surveys and how such readings should be undertaken.

It is not appropriate that the expert should direct the investigation, but it is essential that those who commission the expert's report are aware of the options available. The style of reporting cannot be determined without fully understanding the parameters that are significant. If a question or a contention is identified, then the expert can provide the most relevant answer.

Too often, reports are served that 'explain' the call activity and general movement of phone(s), but the same reports do not actually address or answer any issue, concept, belief or account. The best expert reports are produced when officers fully understand what Cell Site Analysis is able to achieve and there is a comprehensive awareness of the relevant points that investigators wish to be considered. Questions or contentions that are to be addressed should be clearly identified and any subsequent report produced should be clear and jargon free. Presentation of supporting material, i.e. maps and schedules should be clear and easy to understand for the jury.

It is only after the scope of the work is

understood that the expert needs to decide the best methodology in conducting surveys as these are often of great significance and may be challenged at court. It is our belief that surveys are best conducted by the expert who is able to monitor the measurements as they are captured.

This action will at least allow that expert to identify any anomalies on site, consider additional surveys, conduct further test calls and then be able to provide an educated response to questions asked of them. After all, the surveys are part of the expert's investigation and will be relied upon during the presentation of evidence which must stand up to in-depth scrutiny.

Cell Site Analysis should not be provided as a 'standard', 'off the shelf' or 'one size fits all', product. It is part of the investigation and like all lines of enquiry relies on instructions or actions. The interpretation of call data records is an expert opinion and therefore

must be credible, reliable and relevant. The quality of the evidence produced is therefore influenced by many factors, but there can be no doubt at all, it is only an extension to traditional detective skills. It will often support or refute an account, it may prove or disprove an alibi and it may support or destroy a witness account. When used appropriately Cell Site Analysis is often 'pivotal' in proving both complex and simple cases.

Footprint Investigations are able to offer advice on cases where Cell Site Analysis may assist. Initial consultation is free and suitable solutions will be identified for the investigators to consider. For further assistance please contact; Andy Townsend 01527 467467 or andy@footprintinvestigations.com







An innovative pilot project to speed up the time it takes to examine computers and mobile phones has resulted in a 90 per cent increase in the number of computers examined. The Investigator reports.

The East Midlands Collaboration Programme was established to provide greater joint working with the forces in the region at a time when budgets are finite.

Nottinghamshire, Derbyshire, Northamptonshire, Leicestershire and Lincolnshire are working closer together in a number of investigative areas including spearheading an NPIA-backed eForensics pilots.

The pilot has resulted in a staggering 90 per cent increase in the number of computers examined.

As computer crime has increased and techniques have become more sophisticated, the demand on technology experts in force Hi-Tech Crime Units (HTCUs) to examine electronic devices has grown nationally by 300 per cent over the past seven years.

To help forces deal with this increasing demand, the NPIA developed a more efficient way for forces to manage the number of devices that need to be examined to help ensure police officers get the evidence they need as quickly as possible. The current process for officers to request an examination of a computer or mobile phone varies from force to force. The aim of the six-

month pilot was to speed up the process for all forces by providing one standardised approach.

The agency assisted in establishing a process to help officers across the East Midlands with their requests. The pilot enabled police officers to contact one of the technology experts from the five force HTCUs involved in the pilot (Northamptonshire, Derbyshire, Lincolnshire, Nottinghamshire and Leicestershire) to have their examination requests assessed before being sent to their force HTCU for investigation.

# **Prioritising**

Part of the process involved assessing how best to examine the device by prioritising against several factors including the threat posed by the offender, the seriousness of the crime and risk to the victim. This has resulted in standardised examinations, reviews and investigation across the region which has led to in an increase in performance and capacity.

As a result of the success of this model, the NPIA is working on making it available to all forces. The NPIA recently held an event to inform all forces of the benefits achieved, lessons learned and how NPIA could support forces to implement the new products and processes.

Simon Bramble, head of Police Science and Forensics at the NPIA said: "The pilot has been a great success helping forces increase the amount of electronic devices examined and significantly reducing the time it takes to do this.

"This is another good example of how the NPIA works with the police service to deliver initiatives that provide more for less and help support frontline officers to protect our communities." ACPO lead on eForensics, Deputy Chief Constable Paul Crowther, said: "With the emergence of technology impacting on many crime types, the police service has recognised that all police forces were spending an increasing amount of time, money and staff on interrogating electronic devices and mobiles phones.

"This project has dramatically reduced the time taken over each device and has also made a massive impact into case loads."

DCC East Midlands Peter Goodman, said: "The East Midlands is at the forefront of innovation. This is another example of how the five forces are working together to increase effectiveness and efficiency in order to maintain a quality police service in light of stringent budget cuts.

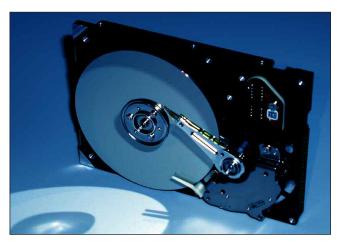
"We are determined to work with the NPIA to make this important investigation technique available to all forces to protect communities across the country."

# **Forensic First**

The East Midlands Collaboration Programme is also collaborating in its forensic capability with the announcement that they will work closer in this area.

From April this year, the three forces began collaborating on analysis, identification and crime scene investigation. This work will not only provide real time forensics, but will save the three forces in excess of £9.5 million over a four year period. Leicestershire and Northamptonshire are also working together, with a view to becoming an overall five-force collaboration at a later date.

Derbyshire Chief Constable Mick Creedon, who holds the crime portfolio for the region, said: "This is a pioneering area of work which is already beginning to show its value. In addition to saving money, it provides us with



greater efficiency and resilience.

"New and innovative approaches to technology have been implemented which will speed up processes, allowing the forces to bring offenders to justice more quickly preventing them from committing other crimes." An example of the benefits can be seen in the very first job the unit received as a collaborative service which was hugely complex and involved the discovery of body

parts in Derbyshire and Nottinghamshire.

Crime Scene Investigators worked closely with the Forensic Case Management Unit to co-ordinate the recovery of the body parts and subsequent identification utilising specialists and DNA testing. The new structures allowed much closer working and liaison across the two forces to bring the case to an early conclusion.

Minister for Crime and Security, James Brokenshire MP says: "This bureau is an excellent example of what can be achieved when police forces work together to deliver improved services at reduced costs. It will save millions of pounds, with a faster and more efficient service to support the investigation of crime and the conviction of criminals for the people of Derbyshire, Lincolnshire and Nottinghamshire."

# **Systems Technology Consultants Ltd Digital Forensic Investigators**





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Investigators from Avon and Somerset and Gloucestershire disrupted an organised crime group supplying cocaine across the South West resulting in the seizure of £1M worth of Class A drugs. The Investigator reports.

The plot reads like the storyline from a Hollywood action movie – a well known racing car driver turning to drug dealing to finance his high-rolling lifestyle.

Laurence Kilby was one of a gang of men who were convicted at Bristol Crown Court recently bringing a complex investigation involving two trials and 16 defendants to an end.

The operation has seen Avon and Somerset's Serious Crime Group working closely with Gloucestershire Constabulary to disrupt an organised crime group supplying cocaine across the South West.

Officers working on investigations codenames 'Operation Kestrel' and 'Operation Berlin' also worked with Thames Valley Police and the MET bring 13 offenders to justice.

Following the final trial, Brian Barrett, 48, was sentenced to ten years. Jonathan Tanner, 45, was sentenced to 18 months. Scott Everest, 39, was sentenced to seven years.

In June, Laurence Kilby, 40, was sentenced to 18 years, Timothy John Taylor, 40, was sentenced to four years, seven months and William James Garnier, 31 was sentenced to six years, eight months.

Laurence Kilby was also sentenced to 10 months to run concurrently for theft from the Help for Heroes charity.

David Alexander Chapman, 29, was sentenced to nine years and Vladan Vudovich, 43, was sentenced to 18 years. Mark Poole, 47, was sentenced to nine years, four months and Richard Jones, 42, was sentenced to 15 years.





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Darren Weetch, 38, was previously sentenced to one year, four months, Garri Burrell, 46, was sentenced to six and a half years imprisonment and Jon Tomlin, 28, was sentenced to four and a half years.

DI Stephen Coghlan from Avon and Somerset's Serious Crime Group said:

"This is an important investigation that demonstrates our commitment to tackling serious and organised crime across our force area and beyond."

"Working together with our colleagues at Gloucestershire Police this operation has put 13 people behind bars, some of whom have received substantial custodial sentences which together total more than a hundred years.

Large quantities of high purity cocaine has been recovered and two significant criminal networks dismantled".

"Drugs have a devastating impact on our communities and, as we have seen in this case, those that deal them often live privileged lifestyles at the expense of the more vulnerable members of society".

"We will now look to ensure these individuals do not benefit in any way from their crimes by the recovery of assets."

During the investigations three kilograms of the cocaine were intercepted as they were being ferried between London and Cheltenham in October 2010 with a further one kilogram package intercepted in Cheltenham in February 2011.

The undercover operation culminated in a day of coordinated warrants in July last year when over a hundred officers raided addresses in Cheltenham, Staverton, Bristol and London and discovered a further two

and a half kilograms of cocaine with a value running into hundreds of thousands of pounds.

The criminal enterprise had a vital link in Cheltenham. Cocaine was being sourced by Kilby in London from an East European criminal gang including Vujovic, collected and transported through Gloucestershire by Chapman and Garnier, then supplied on to an organised crime group in Bristol headed by Jones.

DI Steve Bean said: "The three men from Cheltenham were the key link between the two groups in the process. Kilby would broker the deals, then use Chapman and Garnier as couriers to transport the drugs.

"Ironically, Garnier also ran a legitimate courier business and had converted his delivery van to contain a secret compartment in which to stash the drugs.

"Kilby was the main man. He portrayed himself as a well-connected socialite and businessman, whilst indulging his ambition as a minor league racing driver.

"Despite a privileged background, the reality was that his lifestyle was funded by the illgotten gains of drug dealing.

He continually lied and blamed others in an attempt to distance himself from the conspiracy.

"He displayed an air of arrogance and thought he could get away with it because he didn't get his hands dirty.

"Through painstaking examination of telephony records we were able to identify the full extent of his involvement and deliver compelling evidence to convict all of these defendants."

# ...complex evidence simplified



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# A criminal network has been rumbled by Greater Manchester Police for their part in a million pound conspiracy to sell on cars stolen during burglaries. The Investigator reports.

Ashley Halstead and Timothy Ellor are among 19 people who were involved in an enterprise that sold cars that had been stolen during burglaries, and then made to appear legitimate, to unsuspecting buyers via online market places.

Sentencing at Manchester Minshull Street Crown Court, Judge Bernard Lever sentenced Halstead to four years in prison, while Ellor was given a jail term of two years and four months.

Once they had a stolen car, the group found legitimate registration numbers that belonged to other cars in the same model. The stolen car was then "cloned" to take on

the identity of the legitimate one. Not only were the number plates changed, but the registration number was also used to help upload an advert onto online market places such as Auto Trader, and was made available to prospective buyers for HPI checks.

Further changes were made to the vehicle identification number to ensure that it would be very difficult for a customer to identify a forgery. To assist their deception, the group used stolen V5 vehicle registration documents, stolen road tax discs, personal details of innocent people, fraudulent MOT certificates, fabricated receipts of previous sales of the cars and bogus vehicle history check documents; all of which tried to

demonstrate a legitimate history of the car.

The criminal network operated in three tiers; there were those who managed the list of cars, those who posed as sellers, and those who allowed the cars to be sold at their addresses.

Greater Manchester Police's investigation, Operation Fennel, traced more than 60 cars, of a total value of £571,718, that had been stolen and cloned in this way. Of these, 39 had been sold to innocent buyers, who paid a total of £280,000.

Two victims were Abbie Jones and her husband Ben East, who had a Land Rover Freelander. Abbie suffers neck and muscle pain and therefore required a car with a high driving position.

During the evening of Wednesday 30 March 2011, offenders broke into their house in Didsbury via the patio door and stole the keys to the car and a laptop and drove off in the Land Rover.

The same car was eventually sold to Adrian Bland, a farmer who, with his family, lives in a remote part of the Cumbrian countryside and therefore required a 4x4 car.

On Thursday 14 April 2011, Adrian saw a Land Rover Freelander advertised on the Auto Trader website.

He called the number given and that day Adrian and his wife travelled to a house on Canon Street in Rochdale to view the car.

The Bland family checked the car, had a test drive and agreed on a price. The seller insisted on cash.

Adrian went back to the address, this time with the money, on Monday 18 April 2011. He was handed the V5 vehicle registration

document, which corresponded with the Rochdale address. The vehicle identification number matched the chassis number in the windscreen. The car was later seized from the Bland family by Cumbria Police, and was identified as stolen from Didsbury.



Ashley Halstead

Inquiries were carried out by Greater Manchester Police as part of Operation Fennel, which at the time had launched a proactive investigation into the conspiracy.



Timothy Ellor

The documents that were handed to Adrian were examined.

During an identification parade, the Blands identified the defendant James Cliffe as the seller.

Analysis by the DVLA showed that the tax disc had not been attributed to any car, and was part of a batch that had been stolen from a Post Office in Manchester.

On 11 May 2011, 25 addresses in Tameside and Rochdale were targeted as part of the operation, and the defendants were arrested.

A valuation of all cars involved came £650,000.

Combined with the total monetary impact on

the victims of the burglaries, the overall value of the conspiracy comes to more than £1 million.

Superintendent Neil Evans from Greater Manchester Police said:

"The outcome is the culmination of a sensitive, large-scale and thoroughly planned police operation into an organised criminal network who laundered cash from cars that were stolen after people's homes were broken into. In short, these people made money from burglaries.

"The tragedy here was that for every vehicle involved, there were numerous victims throughout the process."

The Operation Fennel team has come across some tragic stories, such as victims of burglary who felt violated, people whose identities were hijacked, and those who saved up to buy the car that they needed, only to find themselves badly out of pocket.

"We have also worked with online market places such as Auto Trader and will continue to work with these companies in the future.

"We urge prospective buyers of cars to visit the direct.gov.uk website (www.direct.gov.uk/buyerbeware) for general security advice, to always use bankers draft rather than cash, and we also want to make it clear that if a price looks too good to be true, there is every chance that it is."

Mark Angus, Senior Crown Prosecutor said:

"This has been a complex case. It has involved a huge amount of work by police, CPS and many other agencies to ensure that a large organised crime group responsible for the criminal conversion of stolen vehicles on a substantial scale were convicted and sentenced.

"Police seized hundreds of documents and other items of evidence against the gang and by building a very strong case against each of the defendants, we have been able to prove that they all played a part in this conspiracy.

The strength of the evidence prompted them all to plead guilty in the end."

A spokesperson from Auto Trader said:

"We take fraud very seriously and work directly with the police and relevant authorities to help combat car crime.

Auto Trader has led the way in working with police forces across the UK to stamp out trading stolen vehicles and other related crimes such as car cloning and odometer tampering.

Using a combination of state-of-the-art software and highly trained personnel, we were able to assist Greater Manchester Police in highlighting suspicious car adverts to help them convict this criminal gang.

Auto Trader is a founding member of VSTAG, an industry forum created to combat vehicle-related fraud. Kristian Welch, Consumer Director for HPI said:

"Sadly, the cloning of cars is a common practice used by organised crime groups to hide the identity of stolen vehicles.

However, the success of Operation Fennel demonstrates that by working together we can take positive steps to tackle the problem.

Our Police Liaison team worked closely with Greater Manchester Police throughout their investigation, tracking and tracing the trading of the cloned cars by these criminals and providing witness statements to support evidence we gathered."

# Polygraphs - facts and fiction

Forensic Polygraph Examiner Ken Blackstone talks about the myths and facts associated with polygraph testing that is still used in the US.

The US criminal justice system is still largely ill-informed about the polygraph testing. It is agreed, however that polygraph is 90 per cent 16 psychology and that the psychological factors at play during deception are related to emotion, cognitive activity and or behaviour conditioning.

At least 16 psychological theories directly apply to deception and to predict how many of these factors will apply to a certain individual at a certain time is a feat beyond science.

To identify which of these factors caused a certain response is also impossible but it is not however imperative that we define the cause to prove that there is an effect.

It is quite possible, and acceptable to have a test validated as accurate for its specified purpose without having a complete understanding of the underlying theoretical constructs.

When considering the underlying cause of arousal during polygraph testing, it is useful to think of a continuum of causes, rather than one simple explanation.

Today the term differential salience provides a defensible and comprehendible theoretical framework through which a variety of explanations can be explained. Using salience we can account for psychological responses that occur for a variety of reasons.

# **Psychology**

One of the most misleading myths relating to the polygraph procedure is the term lie detector and the subsequent assumption that there is a physiological response that is unique to lying.

Sorry – there is no Pinocchio response.

Analogue or digital, the polygraph instrument does not detect lies; it records respiration, electrodermal activity, and cardiovascular activity and that recording translates into a monitor of the autonomic nervous system (ANS).

# **Autonomic Nervous System**

Sometimes referred to as the visceral nervous system, the ANS is the part of the peripheral nervous system that acts as a control system, maintaining homeostasis in the body.

These controlling activities (allostasis) are generally automatic, performed without conscious effort or sensation. The term allostasis is derived from the Greek allo meaning "change" and stasis meaning "stable."

Homeostasis comes from the Greek homeo (same) and stasis (stable) thus meaning "remaining stable by staying the same."

Allostasis, which is the process of achieving stability, describes the bodily changes that occur behaviorally and physiologically to

assist in remaining stable. The ANS regulates the body's visceral organs: heart rate, digestion, respiration rate, and salivation, and perspiration, diameter of the pupils, urination and sexual arousal.

Whereas most of the actions of the ANS are completely involuntary, some, such as breathing, work both involuntarily and in tandem with the conscious mind.

It's main components are its sensory system, motor system, comprise of the parasympathetic nervous system (PNS) and sympathetic nervous system (SNS) and the enteric nervous system. The enteric nervous system controls the gastro-intestinal system and communicates with the central nervous system through the parasympathetic and sympathetic branches.

The parasympathetic and sympathetic branches, while complementary, typically function in opposition to each other. The PNS is usually dominant and it serves as a means of conserving energy. The SNS is always active at a basal level (sympathetic tone) and becomes more active, or dominant, in stressful circumstances requiring quick responses, also known as emergency situations.

# **Emergency Situations**

Emergency situations will be either physical or psychological (cognitive, emotional, or behavioral). In an emergency situation a person's sympathetic branch is aroused automatically (sympathetic arousal) and then to regain homeostasis the parasympathetic branch counterbalances this arousal (allostasis). For a loose analogy, one may think of the sympathetic branch as the accelerator and the parasympathetic branch as the brake.

At times when the initial arousal is extreme, the compensation (aka parasympathetic

compensation) will be excessive (parasympathetic overcompensation) and this accounts for what appear to be contradictory or opposite manifestations (high blood pressure and then fainting due to low blood pressure).

# **Deception Criteria**

The notion that bodily changes are indicative of deception has been around for thousands of years and one of the more impressive prescientific observations on the detection of deception and deception criteria was made in the third century BC by Erasistratus (304 BC- 250 BC), the grandson of Aristotle. A royal physician in Syria, Erasistratus is known as the first cardiac arrhythmologist to use the tumultuous rhythm of the heart to conclude that Antiochus, crown prince of the Seleucid court in Syria, was hiding his love for his beautiful stepmother Stratunice. Their marriage and child appear to confirm these early findings (Trovillo, 1939).

The first modern paper on deception criteria "Deception Test Criteria" was written in 1942 by Paul Trovillo, then a forensic psychologist at the Chicago Police Scientific Crime

Detection Laboratory. Trovillo then identified a total of 23 physiological responses as indicative of deception. For the cardiograph he listed 11 responses, for the respiration tracing he listed six responses, and for the electrodermal (GSR) he listed six. He also noted what he called ambiguities in all three channels. (Ansley, 2008)

Today, based on extensive research, there are 10 tracing features (see Table 2) or "response patterns" which are considered as reliable for manual scoring. (The number 11 is often used to separate two forms of suppression in respiration.)

To continue reading this article click HERE

# CCTV CONFERENCE



# THE USE OF CCTV IN HOMICIDE INVESTIGATIONS

17 October 2012 - Leicestershire - UK

The Investigator is hosting a one-day conference on best practice around maximising the use of CCTV evidence in homicide investigations.

The day will be chaired by former ACPO lead on CCTV Graeme Gerrard, Deputy Chief Constable and he will be unveiling previously unreleased research into the use of CCTV in homicide investigations in UK forces.

It will also feature practitioners and other leading experts in the field of CCTV and video analytics who will highlight how CCTV evidence has the potential to enhance a homicide investigation.

This is a 'must attend' conference for all investigators looking for practical advice and sound theory on CCTV in an investigative context.





# Speakers and topics include:

- Exclusive research: Former ACPO lead on CCTV and Deputy Chief Constable Graeme Gerrard will talk in public for the first time about research he conduction around best practice in the use of CCTV in UK homicide investigations.
- Suzanne Pilley Murder investigation: Det Supt Gary Flannagan, Lothian and Borders Police: How CCTV was used to pinpoint the final movements of murdered Edinburgh book keeper Suzanne Pilley
- Operation Cricket: DS Andy Warne, Devon and Cornwall Police Major Investigation
   Team: how CCTV was used to identify the location of a victim and an offender shortly before a murder

off Penzance Harbour

- Met Police: Robin How, Senior Manager Met Police Audio Video Forensic Laboratory: best practice in presenting CCTV and other digital evidence in court
- Use of CCTV in the Rico Gordon fatal shooting, DCI Gareth Bevan and DS Sim Cryer, Avon and Somerset Constabulary: the officers will be speaking about the fact that CCTV was one of the most vital aspects to the success of this case.

## Cost:

£145.00 per delegate

## Information

- Conference runs from 9.20am till 3.30pm (Registration starts at 8.30am)
- Certificates of attendance available
- Accommodation can be booked with the hotel at a special reduced rate (£60 B&B)
- Tea and coffee will be served on your arrival

# How to book delegate places

Email the delegate name(s), email address(s), accounts payable email address, purchase order number and telephone number and invoice address to: info@the-investigator.co.uk

Please note that many police forces/organisations will only pay our invoices if a purchase order number is included, please check with your accounts department.

### Venue address:

Rothley Court Hotel, Westfield Lane, Rothley, Leicestershire, LE7 7LG.

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For details on all of The Investigator's conferences visit: www.the-investigator.co.uk

# Conference speakers required

The Investigator conferences is looking for conference speakers for their Autumn schedule in the following areas:

- Financial Crime
- Covert Policing
- Computer Forensics
- Investigative Interviewing
- CCTV

UK police force case studies, best practice and examples in the use of technology in solving crimes are welcomed.

For further information please contact Carol Jenkins on 0844 660 8707 or email: carol@the-investigator.co.uk





# Cutting edge advances in DNA analysis proved the key to solving the 45-year-old death of a Berkshire teenager. Carol Jenkins reports.

The year of 1966 was best known in footballing terms for when England famously won the World Cup. However, away from the jubilant headlines – a tragic murder was also being reported on.

Nanny Yolande Waddington, 17, had gone out for a drink in a local pub in the Berkshire village of Beenham one evening and was later found strangled.

Despite an extensive investigation by police, her murder remained unsolved – until it was re-opened by Thames Valley Police last year as part of ongoing work by forces to use advances in forensic science to crack previously unsolved murders and other serious crime.

Senior Scientist Roy Green, who has over 30 years' experience in forensic science was tasked taking a fresh look at the case. Mr Green is responsible for co-ordinating and reporting on complex and serious crime cases, cold case reviews and current homicides, and has been involved with a number of high profile cold cases. Roy was the Lead Scientist in the reinvestigation of the murders of Rachel Nickell and Stephen Lawrence and provided forensic advice on London 7/7 bombings.

Mr Green acknowledges that from the outset one of the key challenges was the fact the case was 45 years old and in case this old – there is often a lack of original evidence to forensically analyse.



Nanny Yolande Waddington

"This raises issues about the importance of retaining evidence in unsolved cases like these so that we can apply the latest forensic techniques to see if we can uncover fresh evidence. Our main driver is the fact that there could still be a victim or a victim's family that has been denied justice and that's why our cold case work is so vital."

However, in this case, there was still some original evidence that police had saved. The team used a novel DNA analysis technique, developed by LFC Forensics' own research and development team, to extract DNA from degraded samples of blood found on Yolande's headband and from polyurethane sacking found at one of the scenes.

The recovery of an almost complete DNA profile from the sacking provided powerful as there was only a one-in-a-billion chance that the DNA profile found on the headband Yolande was wearing, belonged to someone other than suspect David Burgess.

David Burgess, 64, was already serving a life sentence for killing nine-year-old girls Jeanette Wigmore and Jacqueline Williams in Beenham in 1967 when he was charged with Yolande's murder.

Mr Green pointed out that originally, blood

grouping tests eliminated Burgess and it was only when scientists carried out a fresh analysis of the material using the latest scientific techniques that they achieved a breakthrough.

When his team, first began revisiting the case, Mr Green spoke of the importance of scientists 'thinking outside of the box' and taking a different approach with the hope of uncovering new evidence.

The challenge for the scientists is once they have obtained positive results is to now try and work out what the results mean in the overall context of the case, says Mr Green.

Steve Allen, Managing Director of LGC Forensics, said: "We always value the opportunity to contribute to investigations where, using the latest technologies, our scientists are able to thoroughly and painstakingly identify important evidence and yield results that otherwise could have been missed."





David Burgess

LGC Forensics has developed an unrivalled reputation for investigation of historic cases as well as for high quality analytical science across the full spectrum of forensic casework. In difficult cases, such as this one, a successful outcome owes much to LGC Forensics' unique approach to investigation strategy and in-depth search methods.

The jury at Reading Crown Court convicted



Murder location

Burgess by a majority verdict of 11 to one following a five-week trial recently.

Yolande's brother, Giles Waddington said:
"Yolande's murder had a traumatic and
irreversible effect on our family life and has
cast a long shadow over nearly five decades."

LGC Forensics has been involved in several high profile cases of this kind in the past. These include re-investigations of the murders of Rachel Nickell and Damilola Taylor, as well as the death of Vikki Thompson.

This year LGC provided crucial forensic evidence in the investigation of the 'Coastal Path' and associated murders, assisted in the re-investigation into the murder of Milly Dowler and provided DNA evidence in the reinvestigation of the 1966 murder of Yolande Waddington.

Its audio-visual team provided key evidence in the Rhys Jones case and, working with its Science and Technology Division, it contributed to the Alexander Litvinenko polonium poisoning case.

LGC Forensics, Queens Road, Teddington, Middlesex, TW11 OLY, UK.

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Gwent Police has become the latest force to adopt digital interviewing technology. Richard Mill of NPIA-approved digital interview experts Business Systems explains how the technology can improve the quality of police interviews and drive up performance.

Those iconic images of tape recorders perched on tables in police interview rooms are now thankfully being confined to the history books as many forces are seeing the performance benefits that can be realised by adopting digital interview technology.

Historically, the audio recording of interviews was introduced in 1986 as part of the Police and Criminal Evidence Act (PACE) 1984 to increase transparency and avoid allegations of mistreatment or coercion of suspects. Later came the introduction of video recordings for storing interviews and evidence in certain cases.

Gisli Gudjonsson, a leading international authority on investigative interviews has long argued that the standard of interviews in the UK is arguably much higher than the rest of the world because the interviews are recorded.

He believes that it not only provides

protection for suspects but can prevent officers falling foul of spurious claims from their interviewees.

#### Limitations

As technology advances and the performance culture is now firmly embedded into operational policing, forces are recognising that tape-based solutions have their limitations. As technology moves on apace — tapes are no longer manufactured and they generate poor sound quality and are not easy to copy, transport, store or playback. Recognising the need for change, the National Policing Improvement Agency (NPIA) devised a best practice framework for digital interview recording solutions and Business Systems in partnership with Damovo was one of three companies to be named an NPIA-preferred supplier.

#### **Cutting edge**

Our Complete Online Digital Evidence System (CODES) is a flexible system that is designed to facilitate the investigative interviewing of suspects, victims and witnesses.

The technology includes voice and/or video recording equipment, including microphones and cameras; an interview management console with either a touch screen or keyboard and server based data storage for quick and easy retrieval of interviews.

Our system is unique in that forces can either replace their tapes with the digital equivalent or go further and introduce a fully networked system that can allow for the sharing of interviews and other data with other criminal justice system partners.

#### **Quality control**

Gwent Police is the latest force to adopt the CODES technology and it is already seeing performance benefits which extend beyond the fact that the quality of recordings is enhanced and it is quicker to search and play back.

DS Martin Vaughan, an ACPO approved interview advisor with the force explained that the technology enables supervisors to quality control interviews and critically review their content which in turn can only improve performance.

"The fact that the interviews are easy to store, play back and you can search them in a matter of seconds means that supervisors are better able to quality control interviews," he said.

"This is vital to ensure interviews are robust enough to withstand potential challenges by the defence and to help put a compelling case to the court."

It has also had a positive effect on the quality of interview and the performance of officers as they now don't have to stop their interviews after 45 minutes to change a tape.

#### **Evidence**

As well as helping professionalise the whole interview process, CODES can enhance the evidence management process as it allows officers to attach key forensic information such as CCTV footage and other images to the interview file.

This ensures a more joined up approach and means that vital evidence can be stored in one location and easily shared with authorised personnel.

CODES complies with current and future Management of Police Information (MoPI) directives, along with the two new (PACE Codes of Practice, E and F. It can also play a vital role in ensuring witnesses are able to present their evidence to a court without appearing in court in line with Special Measures.

#### Witnesses

The visual recording of witness interviews is an important service offered to the

vulnerable who might otherwise feel intimidated by being physically present in court. Many trials are discontinued or fail due to unreliability of witnesses.

The fact that the technology is less intrusive can also ensure witnesses feel more comfortable being interviewed.

There is also a mobile solution that can enable investigators to conduct their interviews in locations away from the police station - again leading to increased victim and witness satisfaction and ultimately enhanced public confidence in the criminal justice system.

Looking to the future, there is no denying the fact that money is finite and chief officers will continue to have to make tough decisions about how they spend dwindling budgets.

However, there is no getting away from the fact that as tapes become obsolete – forces will have no option but to adopt digital interview technologies.

The fact that this new technology can support improved performance and efficiency is a compelling case and one that will not be lost on chief officers who have to balance budgets and achieve more with less.

For more information on CODES go to www.businesssystemsuk.co.uk/codes

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A Victoria Police investigator who has interviewed sex offenders for the past 20 years has combined his experience with existing research to devise an advanced model of questioning sex offenders that has been integrated with the Investigative Interviewing programme delivered to crime squad detectives. Chris O'Connor talks to Carol Jenkins about the key aspects of the model.

Interviewing sex offenders can be problematic for some investigators because it may challenge their own deeply held belief systems and values.

Looking back to the approach adopted to interviewing sex offenders in Australia in the past, Chris O'Connor admits that while investigators have always been aware of the behavioural aspects of sex offenders, they have generally approached the interview process from the perspective of an "outsider looking in".

"The focus was often placed on what we, the police, wanted to achieve from the interview rather than a more middle of the road focus that included the offender's perspective," he explained.

"In the past our big problem was that we were dealing with people who make an art form out of deception and so there is no point walking into the interview room trying to be nice to them with no moral commitment to being nice," he said.

"It's one thing to role play that you are being respectful to somebody and that you have some understanding of where they are coming from but it's another thing to altogether actually do it."

Mr O'Connor said investigators wrongly thought that as long as they acted nicely to the interviewee then they would tell the investigator the information he or she wanted.

"If you are talking to somebody with low self-esteem and regard for themselves who doesn't believe others can see any good in them or see humanity in them then faking it doesn't work."

He describes 'faking it' as "appearing to be sensitive to a person's need but in practice your tone, language and demeanour doesn't reflect this."

"It it is really obvious that you are faking it just to get the result you want and this approach does not work with all offenders."

Mr O'Connor points out that a key aspect for investigators to take on board is that if you are speaking to someone who makes an art form out of being deceptive and hiding aspects of their lives – then it is quite likely that you, the investigator, are the first person to challenge the offender about his thoughts and behaviours.

"Logically, then, they have got to be pretty confident about whether you are genuine or not." he explained.

His advanced model of questioning sex offenders aims to put into practice a person-centred approach that challenges the questioner's own perspectives as they relate to him/her, the offender and the offence.

This person-centred approach requires the interviewer to overcome his or her own moral perspective and to realise that sex offenders are not monsters but, that their behaviour is monstrous.

It also requires investigators to place the emphasis firmly on maximising the quality

of the product – the interview and the evidence that is going to be put before the court - rather than focussing on their views of the offending.

"If you're not using a person-centred approach then there is a danger that you will devalue the victim. Interviewing sex offenders should not be about whether you are shocked or not – it is about achieving justice for victims."

Victoria Police officers wear navy blue uniforms and Mr O'Connor refers to what he describes as the "blue serge."

"You have to take off that blue serge before you walk through the door to the interview room," he said.

"This can sometimes be problematic because the fundamental raison d'être of policing is the concept of 'command and control'. We are judged publicly by our capacity to command and control situations.

However, the concept of 'command and control' has little relevance in an interview room. I think it is this departure from what is instilled in us as police officers that is difficult to implement."

He urged investigators to put on the "humanity uniform" instead. While he admits that interviewing sex offenders is emotive he says that investigators have to be prepared to adopt the person-centred approach.

"What this means is that the investigator is no longer the star of the interview. It is about the sex offender and not the interviewer."

He admits that in the past he has seen officers who believe that they are the "stars of the show."

"I've heard interviewers make comments such as 'I am the one asking the questions not you' and this is entirely the wrong approach. I would say to investigators that you are not the star of the show but you are stage managing the show and that's still very important."

Based on the content of this thesis, Mr O'Connor offers the following advice to investigators interviewing sex offenders:

#### Do your homework!

Research the offender, the crime scene and all the aspects of the offending and the offence/s when you plan and prepare the interview. Talk to other officers who have interviewed him and build up a picture of him and his offending.

#### Create a relationship

There is a psychological tenant that implies it's difficult to tell a lie in a relationship no matter how tenuous that relationship may be. Try to establish some degree of honesty and genuine behaviour.

You may abhor the behaviour of this person but this person is still someone's brother, sister, uncle, grandfather. Take away their offending and they are often functioning members of the community – they are not monsters who live in caves.

The key point is to create an environment that maximises the opportunity for the individual to speak the truth as he/she understands it. If you have your planning and preparation then this should not be as challenging as it sounds. Always remember to identify the key legal requirements you need to achieve from this communication.

It is a conversation, yes; but a conversation with a clear purpose.

Initial impressions are vital to a successful outcome

The manner in which you conduct yourself from the first contact with that person will often determine the quality and type of relationship that will develop.

You should be prepared for the interviewee to be negative, unresponsive, maybe even insulting and objectionable and see past this to continue focussing on the point that they are the stars of the show.

The easiest thing to do with a sex offender is to show disrespect, disdain and distaste – avoid falling into this trap because you may reinforce a preconceived view of police attitudes held by the offender.

#### Open a line of communication

You need to open up a line of communication to enable the sex offender to feel comfortable enough to make an admission. Often a sex offender wants to tell you about his offending but if you don't give him that channel then this is a lost opportunity.

# The vast majority of sex offenders particularly child molesters will make admissions

I have been interviewing sex offenders for the past 20 years and it's my personal experience that it is possible to get admissions from them about their behaviour. You should appreciate that often they may be victims themselves or have suffered some other type of abuse. The number of child molesters who claim they were victims of child sexual assault is most significant and there is now sufficient empirical evidence to support this view.

I've interviewed people who are adamant they are making no comment – and then end up making full admissions.

If you walk into that room expecting no comment that's exactly what you are going

to get. Instead you should walk into the room expecting the person is going to communicate with you.

#### Include a key challenge

This could either be at the start or as the interview progresses.

I've interviewed sex offenders who, based on their history, I expected would say nothing unless confronted by a strong challenge that I knew to be true, they knew to be true and I showed them substantial evidence to support its truth.

Other times offenders insist they are a respectable member of the community and have worked with children all their life. In these cases probe the offender about his comments. Quite often you will identify a line of inquiry you can drill down that gives you some insight into their emotional and cognitive perspectives as well as culpability.

# As the interview progresses – be consistent!

There is a danger that you might start using the person-centred approach and, if not immediately successful, will move to a more coercive style. Keep reminding yourself about the purpose of the interview and the importance of realising justice for both the victim and the offender.

The longer an interview continues the more the tension in the room will be released and the flow of communication should improve. This should help the flow of the interview.

Consider the concerns of the sex offender that might prove a barrier to communication.

You don't find sex offenders sitting down at the local pub with their mates having a beer telling them about their sex offences in a way you might find with a thief or drug user.

Sex offending is a very personal crime. It is unusual for offenders to socially discuss their crimes. It may well be that you are the first person the offender has spoken to about their offending. And, also, who has challenged them about their behaviour.

They will also be concerned about public exposure of their offences. You have to develop strategies and tactics to make this less of a barrier to communication.

The seven masks approach is helpful but should not be seen as a panacea to connecting to sex offenders. I have found an awareness of these masks useful when responding to sex offenders. However, they are loose types of presentations that sex offenders may display to you. It is not uncommon for offenders to display different or multiple masks, depending on the stage of the interview.

## Masks worn by sex offenders:

The Joker

The Know-it-all

The Bully

Slippery

Sleazy

The Angel Face

The Dependent

To read an unedited copy of Chris O'Connor's research click on the below link: http://www.theinvestigator.co.uk/files/OCO NNOR\_THESIS\_FINAL\_Feb\_2011.pdf

This article first appeared in an issue of The Investigative Interviewer, the world's only dedicated interviewing magazine.

For police force intranet subscription queries please contact Dale Hazell on:

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**EvoFIT** composite

Actual







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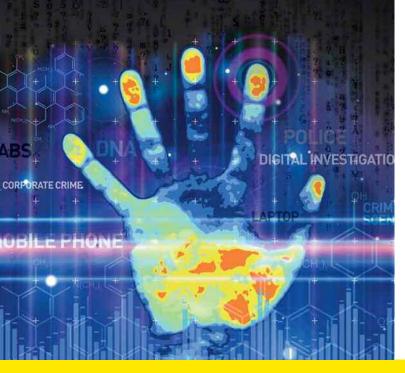
The inaugural Forensics Europe Expo takes place on 24 – 25 April 2013, Olympia, London, sponsored by LGC Forensics, in collaboration with The Forensic Science Society and organised in partnership with The Investigator.

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# Forensic Innovation – past, present and future

Innovation in forensic science is a true phenomenon that has been embraced by law enforcers, academics and industry professionals across the world in a way that could not have been predicted even a decade ago.

Such advancements have transformed the evidential potential that is now available to investigators that has enabled them to secure successful prosecutions – often years after a crime has been committed.

The conference will be a celebration of these advancements, examining them in detail and debating present and future challenges that will occur as a result.

This conference is a UK first – in that it is the first time ever that law enforcers, scientists, academics and industry experts in the field of forensics have been brought together in London in a major show that embraces forensic innovation.

# **Digital Forensics**

The unprecedented proliferation in new technology over the past five years has led to the development of digital forensics as a scientific discipline.

The fact that almost all of us conduct our lives in the 'virtual' world on mobile phone and computers through social networking sites and the internet in general has presented new challenges for law enforcers.

It has also led to an increase in academic courses and research devoted to this exciting new area of science.

This unique event brings together leading law enforcers, academics and industry representatives to debate the current around digital forensics and to look at how this exciting body of work will progress in future years as technology continues to develop and advance.

# 2013 Speakers

Forensics Europe Expo 2013 brings together over 45 internationally recognised speakers to debate, discuss and deliver exceptional insight and analysis to the world of forensic investigations. Our speakers draw upon years of experience from police investigations, counter fraud disciplines, national security intelligence and the criminal justice system to offer delegates their expertise to implement best practice for evaluating forensic evidence and solving physical and electronic crimes. Many of our speakers have consulted and led large-scale investigations including a number of high profile cold-cases and have gone on to receive recognition for their work including OBE's, accreditor for the National DNA database, Commendations from the Criminal Justice System, Crown Court and the Police, Specialist Advisor - Major Crime (one of seven in the country) and members of a Nobel Prize winning team.

#### 2013 SPEAKERS INCLUDE:

Dr Ann Priston, Chair Forensic Science Society Chief Constable Chris Sims, Forensic Science lead, Association of Chief Police Officers and Chief Constable, West Midlands Police Dr John Bond, OBE, Senior Lecturer, Department of Chemistry, University of Leicester Prof Dr Arian C Van Asten, Department Head, Netherlands Forensic Institute Dror, Institute of Cognitive Neuroscience, Department of Science, University College London Joseph A Prahlow, Forensic Pathologist, South Bend Medical Foundation, University of Notre Dame, USA Dr Neil Cohen, Home Office Centre for Applied Science and Technology (CAST) Dr Bart Custers, Project Leader Technology in Policing, Department of Security and Justice, The Netherlands Andrew Beckett, Head of Consulting and Professional Services of Cassidian Cyber Security





08.00 - 08.45: COFFEE/REGISTRATION

08.45 - 09.00: CHAIRMAN'S OPENING REMARKS

Dr Ann Priston, Chair, Forensic Science Society Changing Forensic Landscape

#### **Changing Forensic Landscape**

09.00 - 09.20:

FORENSIC-LED POLICING: CHALLENGES AND OPPORTUNITIES

Chief Constable Chris Sims, Forensic Science lead, Association of Chief Police Officers, West Midlands Police

09.20 - 09.40: APPLYING FORENSIC PRINCIPLES TO THE INVESTIGATION PROCESS

Callum Sutherland, Vice President, Forensic Science Society

09.40 - 10.10: ROUND TABLE

10.10 - 10.40: COFFEE/TEA/EXHIBITION VISIT

# **Crime Scene Investigation/Examination**

10.40 - 11.00:

FACTORS AFFECTING THE QUALITY OF CRIME SCENE INVESTIGATION

Dr John Bond, OBE, Senior Lecturer, Department of Chemistry, **University of Leicester** 

11.00 - 11.20:

CSI: THE HAGUE – REVOLUTIONISING CRIME SCENE INVESTIGATION THROUGH DIGITAL RECONSTRUCTION

Prof Dr Arian C Van Asten, Department Head, **Netherlands Forensic Institute** 

11.20 - 11.40:

RE-EXAMINING A CRIME SCENE TO MAXIMISE THE EVIDENTIAL POTENTIAL IN ARSON INVESTIGATIONS

Andrew Wade, Lead Forensic Scientist, First Forensics

11.40 - 12.10: ROUND TABLE

12.10 - 13.40: LUNCH/EXHIBITION VISIT

### **Law Enforcement Application**

13.40 - 14.00:

USE OF RADIO-NUCLIDES, RADIOGENIC AND STABLE ISOTOPES IN THE INVESTIGATION OF SUSPICIOUS DEATHS

Ray Fysch, Forensic Advisor, Environmental Profiling Unit at **University of Reading** 

14.00 - 14.20:

THE APPLICATION OF ECOLOGY, BOTANY AND MYCOLOGY IN CRIMINAL INVESTIGATION

Dr Patricia Wiltshire, Forensic Botanist and Dr David Hawksworth, MBE, Forensic Mycologist

14.20 - 14.40:

MAXIMISING THE POTENTIAL OF TRACE FIBRE EVIDENCE

Tiernan Coyle, Lead Forensic Scientist, Contact Traces

14.40 - 15.10: ROUND TABLE

15.10 - 15.40: COFFEE/TEA/EXHIBITION VISIT

# Innovative Technology/Research

15.40 - 16.00:

UNLEASHING FORENSIC DNA THROUGH COMPUTER INTELLIGENCE

Dr. Mark Perlin, Cybergenetics

16.00 - 16.20

IDENTIFICATION FROM HAND ANATOMY TO IDENTIFY CHILD ABUSE

Professor Sue Black, Director, Centre for Human Anatomy and Identification, **University of Dundee** 

16.20 - 16.40:

THE INTERACTION BETWEEN FORENSIC TECHNOLOGY AND HUMAN INVESTIGATION

Dr Itiel Dror, Institute of Cognitive Neuroscience, Department of Science, **University College London** 

16.40 - 17.00:

ATTRIBUTION OF CHEMICAL AND BIOLOGICAL AGENTS

Dr Cerys Rees, Capability Lead – CB Analysis and Attribution Detection Department, DSTL, **Porton Down** 

17.00 - 17.30: ROUND TABLE

17.30:

**CLOSE OF DAY ONE** 

# Forensic Innovation Conference Programme - Day Two: THURSDAY 25 APRIL 2013

08.00 - 08.45: COFFEE/REGISTRATION

08.45 - 09.00:

JOINT CHAIRMAN'S OPENING REMARKS

Prof Dr Arian C Van Asten, Department Head, **Netherlands Forensic Institute** and Ric Treble, Scientific Advisor, **LGC Forensics** 

#### **Innovation in Forensic Provision**

09.00 - 09.20:

INNOVATION IN SHARED SERVICES: HAMPSHIRE CONSTABULARY, HAMPSHIRE COUNTY COUNCIL AND THE UNIVERSITY OF PORTSMOUTH – A CASE STUDY

Terry Lowe, Head of Scientific Support, **Hampshire Constabulary** and Dr Paul Smith, Senior Lecturer, Forensic Science, **University of Portsmouth** 

09.20 - 09.40:

HISTORIC OFFENCES: FORENSIC REVIEWS AND WORKING TOGETHER

Cathy Turner OBE and Tracy Alexander, Case Review Specialists, **LGC Forensics** 

09.40 - 10.00:

FORENSIC COLLABORATION IN THE EAST MIDLANDS; ONE YEAR ON

Jo Ashworth - Director of Forensic Services at **East Midlands; Derbyshire, Lincolnshire & Nottinghamshire Forces** 

10.00 - 10.30: ROUND TABLE

10.30-11.00:

COFFEE/TEA/EXHIBITION VISIT

# **Ensuring Reliability/Accuracy of Evidence**

11.00 - 11.30:

COMMERCIALISING FORENSIC SCIENCE FOR THE CRIMINAL JUSTICE SYSTEM; INQUISITORIAL V ADVERSORIAL

Karen Squibb-Williams, Barrister, Senior Policy Advisor, **Crown Prosecution Service** 

11.30 - 12.00:

IT'S CALLED ACCREDITATION, WHO NEEDS IT?

Professor Allan Jamieson, Director, The Forensic Institute

12.00 - 12.30: ROUND TABLE 12.30 - 14.00: LUNCH/EXHIBITION VISIT

#### **DNA**

14.00 - 14.20:

INNOVATION IN DNA EVIDENCE IN THE NETHERLANDS

Prof Dr Ate Kloosterman, DNA Expert, **Netherlands Forensic Institute** 

14.20 - 1440:

FAMILIAL SEARCHING - A RELATIVE SUCCESS?

Martin Bottomley, Head of Greater Manchester Major Crime Review Team and DS Chris Holt, Greater Manchester Police Major Incident Team

14.40 - 15.00:

TRIPLE HOMICIDE – CONNECTING A SUSPECT TO A CRIME BY DNA TESTING OF FAECES

Joseph A Prahlow, Forensic Pathologist, South Bend Medical Foundation, **University of Notre Dame, USA** 

15.00 - 15.30: ROUND TABLE

15.30 - 16.00:

COFFEE/TEA/EXHIBITION VISIT

# **Fingerprints**

16.00 - 16.20:

CURRENT LEGAL CHALLENGES AND PROBLEMS AROUND PRESENTING FINGERPRINT EVIDENCE IN COURT

Allan Bayle, Independent Fingerprint Expert and former Met Police Fingerprint Bureau expert

16.20 - 16.40:

FINGERPRINT EVIDENCE - RELIABLE OR NOT?

Catherine Tweedy, Expert Witness

16.40 - 17.00:

PROFICIENCY TESTING OF FINGERPRINT EXPERTS; CHALLENGES AND BEST PRACTICE

Peter Whent, Expert Witness, Competency Assessment Services

17.00 - 17.30: ROUND TABLE

17.30:

**CLOSE OF CONFERENCE** 

08.00 - 09.15: COFFEE/REGISTRATION

09.15 - 09.30: CHAIRMAN'S OPENING REMARKS

Mark Ploszay, Global Defence and National Security Specialist Evidence Retrieval and Analysis, **IBM** 

## **Evidence Retrival and Analysis**

09.30 - 10.00:

DIGITAL FORENSIC TRIAGE: MAXIMISING RESOURCES AND REDUCING THE FORENSIC BACKLOG

Harry Parsonage, Forensic Triage Specialist -Consultant

10.00 - 10.30:

IDENTIFYING WHICH MOBILE OR DIGITAL DEVICE CREATED AN IMAGE

Dr Richard Leary, MBE, Jill Dando Institute (retired)

10.30 - 11.00: COFFEE/TEA/EXHIBITION VISIT

# Trends and Challenges in Mobile Forensics

11.00 - 11.20:

BIG DATA IN MOBILE DEVICES – TURNING A BURDEN INTO AN INVESTIGATIVE ASSET

Yuval Ben-Moshe, Forensic Technical Director, **Cellebrite** 

11.20 - 11.40:

"MINING THE MOUNTAIN: THE EXPLOSION OF MOBILE FORENSICS DATA".

Paul Baxter, UK and Ireland Manager Sales Manager, **Microsystemation** 

11.40 - 12.00:

MOBILE PHONE FORENSICS – CURRENT CHALLENGES AND TRENDS

Dr Neil Cohen, Home Office Centre for Applied Science and Technology (CAST)

12.00 - 12.30: ROUNDTABLE

12.30 - 14.00:

**LUNCH/EXHIBITION VISIT** 

# Trends and Challenges in Computer Forensics

14.00 - 14.20:

BYPASSING PASSWORDS AND USING RESTORE POINTS WITHIN A VIRTUAL MACHINE

Michael Penhallurick, Visualisation Forensics consultant

14.20 - 14.40:

FORENSIC IMAGE AND MEMORY ACQUISITION FROM THE CLOUD

Liban Mohamud, researcher, **University College, Dublin** 

14.40 - 15.00:

**GOAL-DRVEN COMPUTER FORENSIC INVESTIGATION** 

Benjamin Aziz, Lecturer, School of Computing, University of Portsmouth

15.00 - 15.30: ROUND TABLE

15.30 - 16.00: COFFEE/TEA/EXHIBITION VISIT

#### Research / Innovation

16.00 - 16.30:

A STRUCTURED APPROACH TO FORENSIC EVIDENCE MANAGEMENT

Clive Blackwell, Information Security Group, Royal Holloway, **University of London** 

16.30 - 17.00: PRESENTATION TBC

**Dr Pavel Gladyshev MSc PhD,** University College Dublin, **School of Computer Science and Informatics** 

17.00 - 17.30: ROUND TABLE

17.30:

**CLOSE OF DAY ONE** 

# Digital Forensic Conference Programme - Day Two: THURSDAY 25 APRIL 2013

08.00 - 09.15: COFFEE/REGISTRATION

09.15 - 09.30: CHAIRMAN'S OPENING REMARKS

Deb Leary, OBE, Chief Executive, Forensic Pathways

# Law Enforcement Challenges

09.30 - 09.50:

USING DIGITAL DEVICES AS EVIDENCE IN THE SUZANNE PILLEY HOMICIDE INVESTIGATION DET SUPT

Gary Flannagan, Lothian and Borders Police Major Incident Team

09.50 - 10.10:

USE OF FORENSIC TELEPHONE EVIDENCE IN OPERATION LEYDON

DCI Robbie Slater and DI Mark Kameen, **Merseyside Police Matrix Team** 

10.10 - 10.30:

BEST PRACTICE IN DIGITAL FORENSICS IN THE NETHERLANDS POLICE

Dr Bart Custers, Project Leader Technology in Policing, **Department of Security and Justice, The Netherlands** 

10.30 - 11.00: COFFEE/TEA/EXHIBITION VISIT

# **Cellsite Analysis**

11.00 - 11.30:

USING CELLSITE ANALYSIS TO LOCATE VICTIMS AND OFFENDERS IN CRIMINAL INVESTIGATIONS

Andy Townsend, West Midlands Police (retired)

11.30 - 12.00:

THE PITFALLS OF CELL SITE ANALYSIS

Dr Iain Brodie, Senior Cell Site Expert

12.00 - 12.30: ROUND TABLE 12.30 - 14.00: LUNCH/EXHIBITION VISIT

#### **Network Forensics**

14.00 - 14.30:

COMBATING ADVANCED PERSISTENT THREATS TO NETWORK

Andrew Beckett, Head of Consulting and Professional Services of Cassidian Cyber Security, Cassidian Cyber Security

14.30 - 15.00:

LEGAL ISSUES AND AROUND NETWORK FORENSICS

David Cook, Solicitor, Pannone, LLP

15.00 - 15.30: ROUND TABLE

15.30 - 1600: COFFEE/TEA/EXHIBITION VISIT

### **Open Source Intelligence**

16.00 - 16.30:

ARMCHAIR INTELLIGENCE – USING OPEN SOURCE INTELLIGENCE IN CRIMINAL INVESTIGATIONS

Neil Smith, **Avon and Somerset Police** (retired) Investigative Researcher and Trainer

16.30 - 17.00:

USE OF OPEN SOURCE DATA IN FRAUD IDENTIFICATION

Mike Hodge, Head of Research and Profiling, **Cotswold Group** 

17.00 - 17.30: ROUND TABLE

17.30:

**CLOSE OF CONFERENCE** 



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