

Britons "Have Had Enough of Experts"

Michael Gove, 3-6-2016

Keir Monteith QC, Garden Court Chambers

21 March 2019



GARDEN COURT CHAMBERS



@GardenCtCrime

TIME TO TAKE BACK CONTROL

Keir Monteith QC, 21-3-2019



GARDEN COURT CHAMBERS

@GardenCtCrime

What this session will cover:

- Why experts are vital;
- The danger of police 'experts';
- And how to get rid of them...



Recent case law



Tactics



Cuts to forensic science threaten justice

<https://www.theguardian.com/science/2017/jan/06/forensic-science-cuts-pose-risk-justice-regulator-warns>

<https://www.gov.uk/government/news/continuing-cuts-to-forensic-science-threaten-criminal-justice>

<https://www.dundee.ac.uk/leverhulme/news/2018/article/the-house-of-lords-science-and-technology-committee-forensic-science-inquiry.php>

<https://parliamentlive.tv/Event/Index/56ccb6e-b0af-4ccc-97d7-a7895c3a0df3#player-tabs>



Get an expert report early-on

A 42-year-old man has been cleared of six counts of sexual assault following a report from a cell-site expert. The defendant was represented by Sam Parham and Yvonne Kramo of Garden Court Chambers. (September 2015)

<https://www.gardencourtchambers.co.uk/cell-site-evidence-proves-mans-innocence/>



Get an expert report before it's too late ...!

65. Finally, and most importantly, Mr Blaxland placed heavy reliance on the evidence relating to the appellant's mobile phone. Two phones were taken from the appellant on his arrest. For reasons which escape us they do not seem to have been interrogated by either the investigating officers or the defence team. We can understand why cell site evidence in relation to the use of the phones may have been of limited value given the close proximity of the masts, the various scenes, and the homes of those involved. However, given the attachment of young and old to their mobile phones, we cannot understand why someone from either the investigating team or the defence team did not think to examine the phones attributable to the appellant. An analysis of mobile phone evidence played a part in the investigation: see the schedule of calls between the co-accused to which we have already referred.

R v SAM HALLAM [2012] EWCA Crim 1158



Police experts

R v Calland [2017] EWCA 2308 (Crim)

para 36... If the prosecution wished to follow that line, they could and should have obtained appropriate expert evidence so that the jury might permissibly have drawn a proper inference. The judge, in our view rightly, foresaw the danger that if the case were presented as the prosecution would wish it to be, the jury would be drawn into making a speculative assumption for which there was no evidential foundation.



Instruct a barrister

GARDEN COURT BARRISTERS ARE BEST

<https://www.gardencourtchambers.co.uk/barrister-list/>

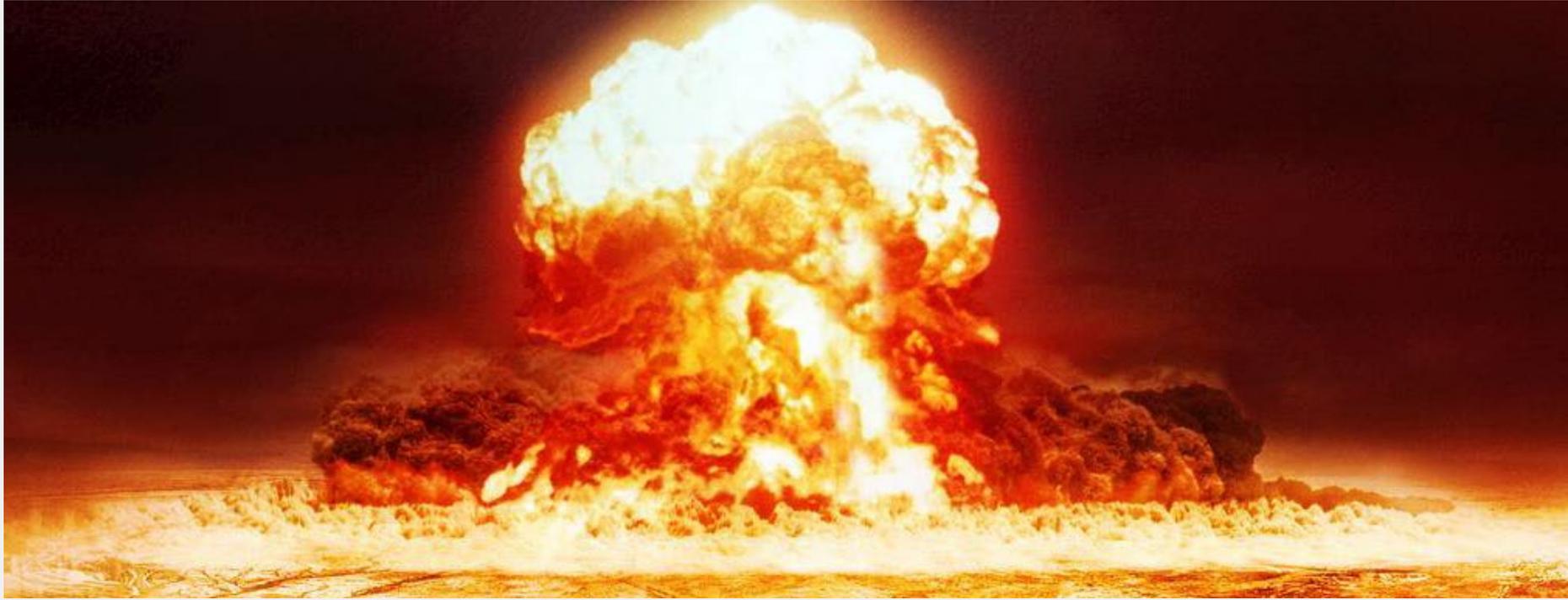


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Face to face meeting





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Thank you

020 7993 7600

| info@gclaw.co.uk

| [@gardencourtlaw](https://www.instagram.com/gardencourtlaw)



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With services provided by some of the most experienced scientists in Europe, our clients can be safe in the knowledge that they are accessing an unrivalled source of expertise

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Forensic Evidence in cases of Terrorism and Serious Crime

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Forensic Equity 
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Person charged with acts of terrorism
CONSPIRACY TO POSSESS EXPLOSIVES FOR AN UNLAWFUL
PURPOSE, contrary to section 1(1) of the Criminal Law Act 1977.

The defendant was first identified by a police officer from CCTV
(analysis was then undertaken to link them to other locations)
The defendant maintains that it is not him captured in the imagery

Having made the identification the police executed a warrant at the
defendants home and seized a number of items including three (3)
computers and two (2) mobile phones.

The police have provided evidence to suggest that the defendant was
communicating via Snap chat, Telegram, Whatsapp, with others regarding
the conspiracy to commit an act of Terrorism

Also seized from an address linked to the defendant were a number of
chemicals.

The defendant does not deny possession of the same but instead claims
that he had legitimate and legal uses for them.

Breaking down each aspect of the prosecution case to seek to
effect a successful defence >

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CCTV, imagery analysis and facial mapping

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John Kennedy

Senior Forensic Scientist

specialising in CCTV, imagery analysis and facial mapping

- An internationally acclaimed expert in digital forensics and arguably the UK's leading authority in forensic imagery.
- John has been instructed in some of the world's most complex and high-profile cases and is renowned for his expertise in the analysis and presentation of CCTV related evidence in Court proceedings.
- These cases have included charges of burglary, possession of an offensive weapon, abduction, ABH, GBH, manslaughter, murder and terrorism

Committee memberships

- Member of the International Association of Chiefs of Police (IACP).
- Member of Advisory Panel for Inside Justice.

Notable cases

- Assassination of Rafic HARIRI, the former Prime Minister of Lebanon
- Cases of terrorism in Northern Ireland
- Boko Haram



Image 2



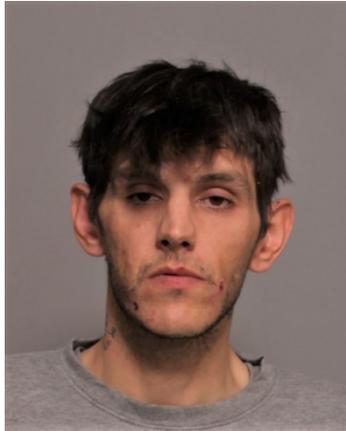
Source: Crime Scene Imagery - Quorn Road

Image 4



Source: Crime Scene Imagery - Quorn Road

Image 1



Source: Custody Suite Image

Image 3



Source: Crime Scene Imagery - Quorn Road

Image 5



Source: Crime Scene Imagery - Quorn Road



Image 2



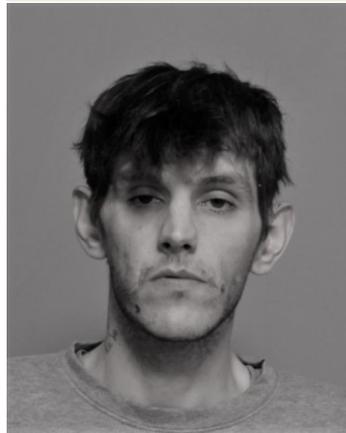
Source: Crime Scene Imagery - Crow's Nest (external)

Image 4



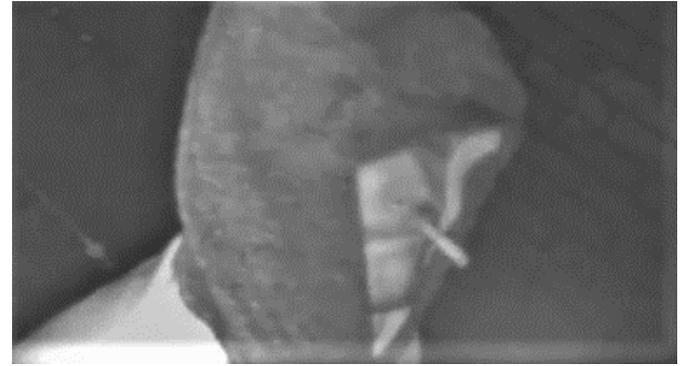
Source: Crime Scene Imagery - Crow's Nest (internal)

Image 1



Source: Custody Suite Image

Image 3



Source: Crime Scene Imagery - Crow's Nest (external)

Image 5



Source: Crime Scene Imagery - Crow's Nest (internal)

Image 2



Source: Crime Scene Imagery - Crow's Nest (internal)

Image 1



Source: Custody Suite Image

Image 3



Source: Crime Scene Imagery - Crow's Nest (internal)

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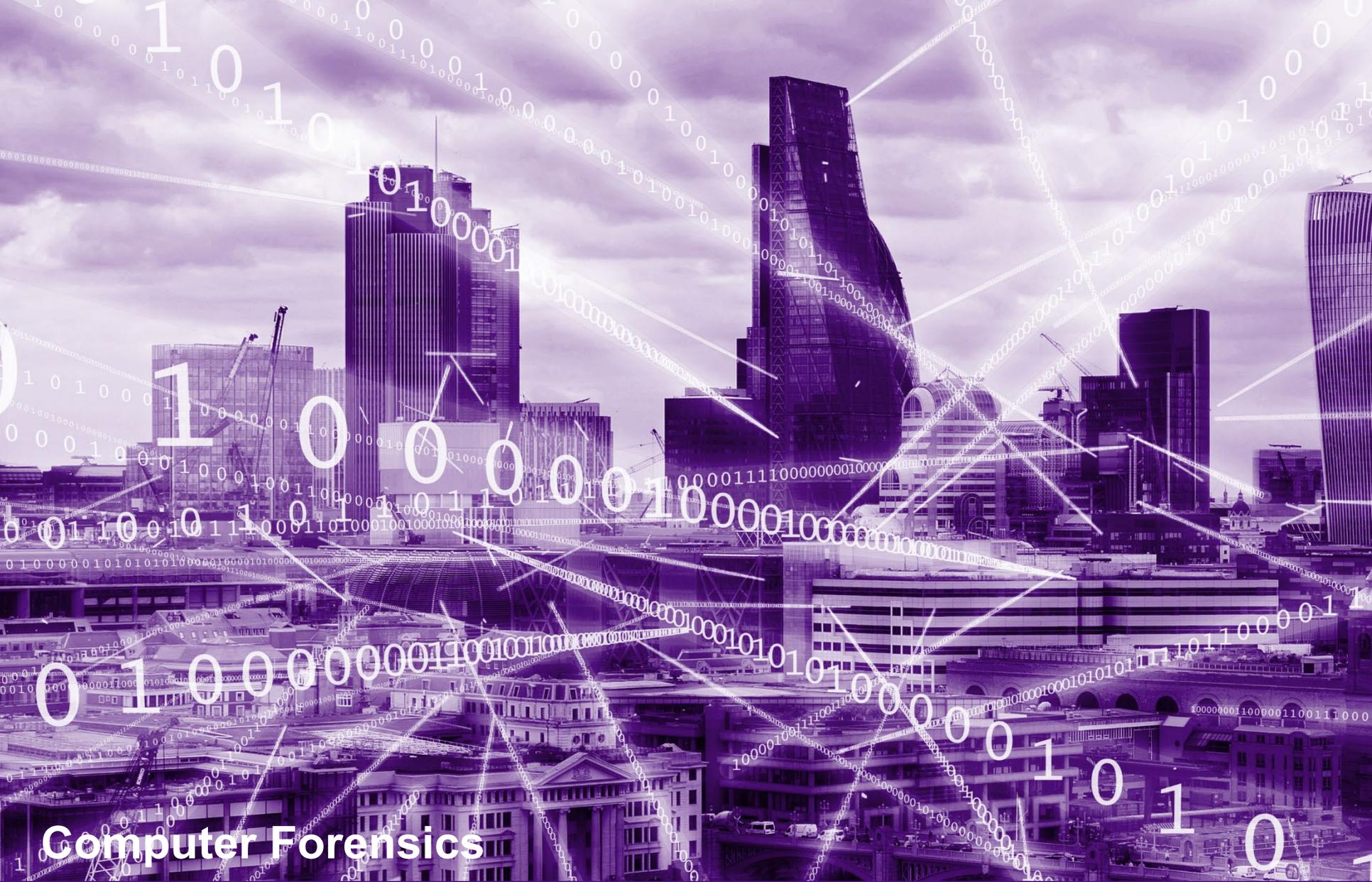
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Computer Forensics

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Simon Biles

Senior Digital Forensic Analyst

specialising in computers, networks and information security

- A highly experienced digital forensic analyst and information security specialist with over 20 years' experience in working with Microsoft, UNIX and assorted LAN, WAN and mobile networking products.
- Leading defence expert, having successfully analysed and reported on some of the most serious, high profile and complex multi-layered cases. These have included charges of possessing indecent images, fraud and terrorism.

Committee memberships

- Certified as a Lead Auditor for ISO 17799.

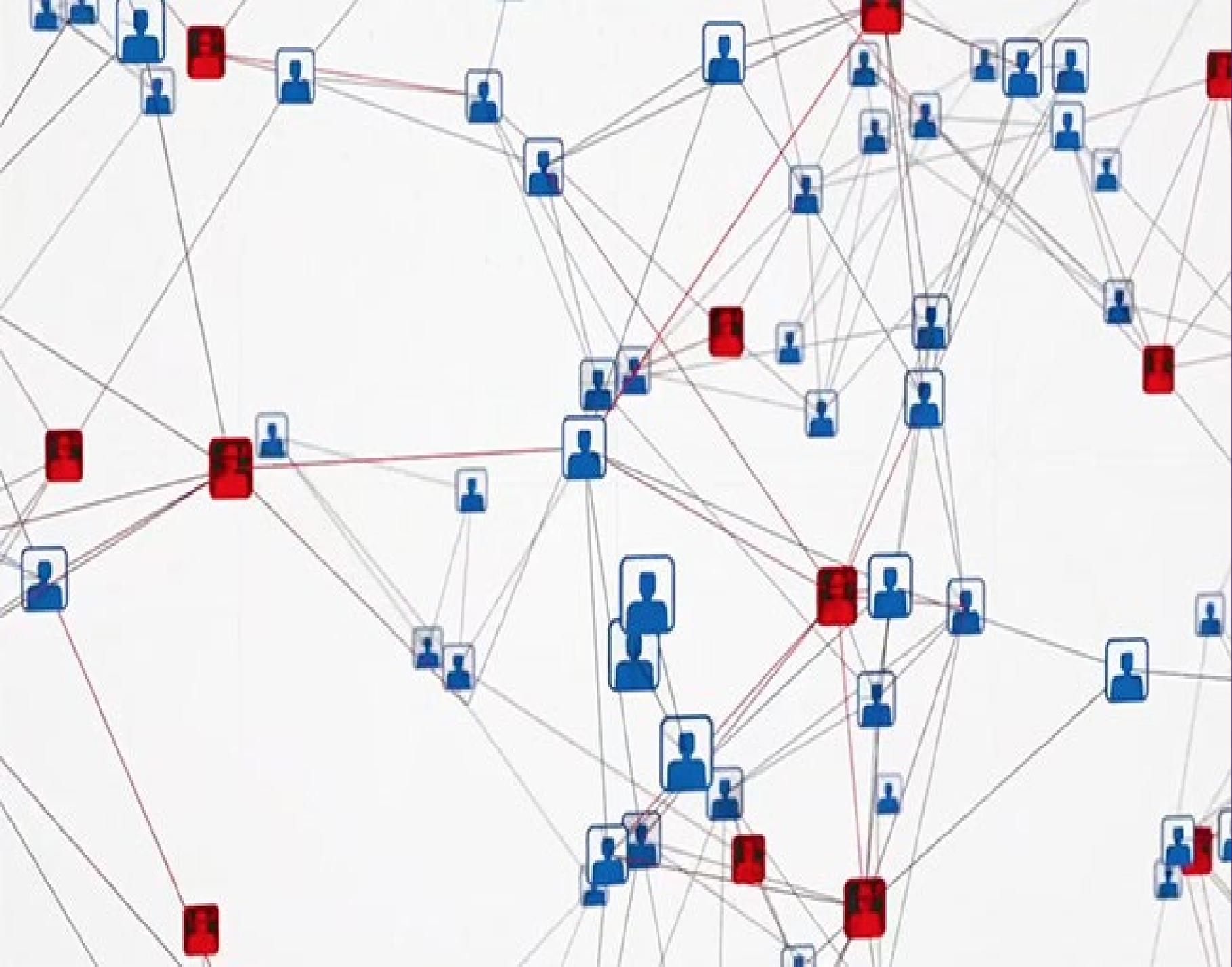
Notable cases

- R v K – Major Fraud
- R v A – Multiple charges of terrorism



Prosecution Identified Evidence

- Communications – instant messaging & e-mail
- Images – memes & photographs
- Web History - searches
- Files – e.g. “The Anarchists Cookbook”





Communications

- Instant messenger applications
 - Telegram
 - Signal
 - WhatsApp
 - Snapchat
 - “AlRawi” (ISIS Produced)
- Encrypted in transit
- Not necessarily encrypted at rest

Terrorists' love for Telegram, explained

It's become ISIS's "app of choice."

By Rebecca Tan | @rebeccanaps | rebecca.tan@vox.com | Jun 30, 2017, 8:40am EDT

Under the Radar

Islamic State issues regular tech tutorials intended to keep followers' communications out of reach of government surveillance. This guide, circulated in January 2015, ranks the encryption of chat apps.

'Safest'	'Safe'	'Moderately safe'	'Unsafe'		
 SilentCircle	 Telegram	 CoverMe	 Viber	 WeChat	 GroupMe
 Redphone	 Wickr	 BBM	 WhatsApp	 Nimbuzz	 MessageMe
 OSTel	 Threema	 iMessage	 LINE	 Hike	 Imo.im
 ChatSecure	 Surespot	 FaceTime	 Tango	 Chat ON	 TalkRay
 Signal (formerly Textsecure)		 Hangouts	 ooVoo	 Kik	 IM+
		 Facebook Messenger	 Kakao Talk	 Voxer	

Telegram app is 'mouthpiece' for terror, Sajid Javid says as jihadi admits encouraging attack on Prince George

Theresa May will single out messaging app Telegram and call it a 'home to criminals and terrorists'



Telegram

Secret Chats

Send Files

Groups (200 Members)

Broadcasts (100 Members)

No Ads

Non-Commercial



Telegram
Messenger

**/data/app/
APK File**
(dex/java file)

**/sdcard/Telegram
Telegram Files**

1. Telegram Audio
2. Telegram Documents
3. Telegram Images
4. Telegram Video

**/data/data/.org.telegram.messenger
Cache Database (cache4.db)**

1. User activities
2. Contact information
3. Messages Exchange
4. Sharing location/files
5. Delete chat

Satrya, Gandeva & Daely, Philip & Arief, Muhammad. (2016).
Digital Forensic Analysis of Telegram Messenger on Android Devices.
1-7. 10.1109/ICTS.2016.7910263.

The joy of Telegram ...

“... under the Documents folder, you will find the tgdata.db database, which contains all information about contacts, conversations, exchanged files, etc.

Here some of the tables of interest are messages_v29, which contains the list of all messages exchanged, conversations_v29, which contains the list of active conversations as showed in the “Chats” screen of the app, and encrypted_cids_v29, which contains the conversation ids of the secret chats.”

“... an interesting ‘feature’ ... is that deleted chats are not actually deleted from the database. This because when a SQLite record is being deleted, for performance reasons it is not actually wiped/purged from the database immediately, but marked as free and eventually overwritten later on when that storage space is needed ... which means that deleted records are not immediately purged out of the database and therefore can be recovered ...”

“Telegram messages from secret chats are stored in clear in the messages_v29 table, like all the other messages.”

Looking for the insider: Forensic Artifacts on iOS Messaging App, Pasquale Stirparo

The joy of WhatsApp ...

- Quite similar to Telegram ...

“The main database is ChatStorage.sqlite, where it is saved the actual content of the messages exchanged. Among the tables of interest, one of the most important is ZWAMESSAGE, which contains, among others, the messages exchanged, their timestamp, the name of the user involved in the chat. Other tables worth to be analyzed are ZWACHATSESSION, ZWAGROUPMEMBER, ZWAGROUPINFO and ZWAMEDIAITEM, which stores references to the multimedia files exchanged, indication of the users involved, timestamps, and the path where the file has been stored.”

The joy of SnapChat ...

`/cache/stories/received/thumbnail` contains thumbnails of pictures taken by the user on the device. The `/sdcard` path contains the full-sized images. These remain even after the time limit has expired and the recipient can no longer access them. The files in both of these locations may not have proper file extensions.

The `com.snapchat.android_preferences.xml` file contains the email address used to create an account, and the

Chat	Lists all text chats. Shows the sender, recipient, timestamp in Linux epoch time, and the text of the message.
ContactsOnSnapchat	Shows all users in the user's phonebook who also have Snapchat installed. The <code>isAddedAsFriend</code> column will show a 1 if the user has actually been added as a contact.
Conversation	Has information about each open conversation. Includes the sender and recipient, and the timestamp of the last sent and received snaps in Linux epoch format.
Friends	Similar to <code>ContactsOnSnapchat</code> , but only includes users who have been added as a friend. Includes the timestamp that each user added the other.
ReceivedSnaps	Metadata about received images and videos. Once the image/video is viewed, it appears to be removed from this table at some point. Contains a timestamp for each message, a status, whether or not a snap was screenshot, and the sender.
SentSnaps	Metadata about sent images and videos. Once the image/video is viewed, it appears to be removed from this table at some point. Contains a timestamp for each message, a status, and the recipient.

Membership of a Proscribed Organisation (Terrorism Act 2000)



Communications

- E-mail, classic and ubiquitous
- Facebook / FB Messenger
- Skype / VoIP

Images

- Memes
- Photos
 - Metadata



Exif Toolbox

Properties

- Equip Make: Canon
- Equip Model: Canon EOS 450D
- Orientation: 1
- X Resolution: 72/1
- Y Resolution: 72/1
- Resolution Unit: 2
- Date Time: 2008:09:06 13:23:53
- YCbCr Positioning: 2
- Exposure Time: 0
- F-Number: F/10
- ISO Speed: ISO-400
- Longitude: 36.165597
- Latitude: 69.960251
- DTOrg: 2008:09:06 13:23:53
- DTDigitized: 2008:09:06 13:23:53
- CompConfig: -
- Shutter Speed: 1/196,72
- Aperture: F/9,92
- Exposure Bias: 0/1
- Metering Mode: Pattern
- Flash: reserved
- FocalLength: 30
- Maker Note: -



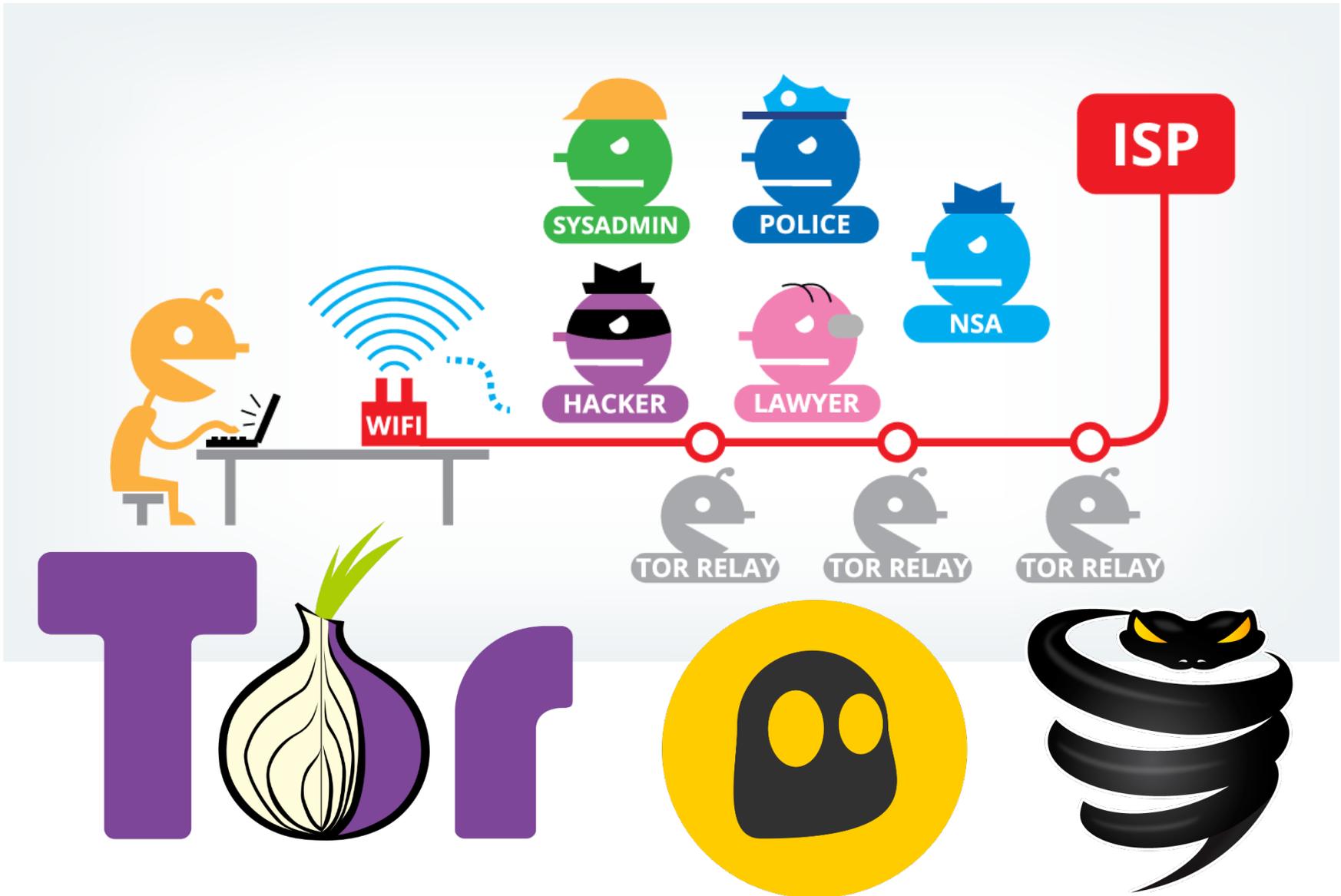
Google

* Other search engines are available, honest !

Web Browser History

- Search term history
- Web page history
- Cached Images & Files

The “Dark Web” & VPNs



UK Guns and Ammo Store

Products Info Login Registration

Guns



Only 3 x P99 and 2 x Glock 19 left, we will get new stock of similar weapons once those are sold.

Desert Eagle IMI, Kal.44



New and unused and unregistered!
Ammo can only be purchased if you also buy the gun.



[\(more photo\)](#)

PTR GREEN G1 SPECIAL EDITION .308 G3

Caliber: .308 Winchester / 7.62x51mm NATO
Capacity: One 20 round magazine included
Barrel: 18" Match Grade Barrel, 1:10 twist rate
Length: 40.5"

Weight: 9.5 pounds

\$890 (0.2208 BTC)

amount



[\(more photo\)](#)

CENTURY ZASTAVA N-PAP M70 AK-47

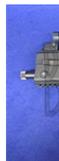
Caliber: 7.62x39mm
Capacity: Two 30 round magazines included
Barrel: 16.25" Hammer Forged Barrel, 1:10" twist

Dimensions: 36" long

Weight: 7.9 pounds

\$590 (0.1464 BTC)

amount



KRISS VECTOR

Caliber: 45 ACP

Capacity: One

Barrel: 5.5"

Length: 16"

Weight: ~5.4



[\(more photo\)](#)

BLUEGRASS ARMORY MOONSHINER BULLPUP .308 WINCHESTER

Caliber: .308 Winchester
Capacity: One magazine included
Barrel: 21" 4140 Chrome Moly steel tapered heavy Barrel, threaded muzzle

Dimensions: 36" long

Weight: ~12.2 pounds



[\(more photo\)](#)

CENTURY ARMS CENTURION 39 AK 7.62X39

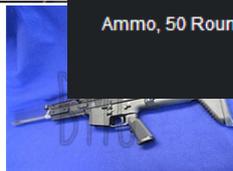
Caliber: 7.62x39MM

Capacity: 2 30 Round Tapco magazines included

Length: 37.25"

Barrel: 16.5", 1:10" Twist

\$820 (0.2307 BTC)



[\(more photo\)](#)

FN SCAR 17S 16.25" 7.62X51

Caliber: 7.62x51mm NATO

Capacity: One 20 round magazine included

Barrel: 16.25" Chrome-Lined Hammer Forged steel

Length: 28" with stock folded, 35.5" with stock collapsed, 38" with stock extended

Weight (unloaded): ~7.9 pounds

Product	Price	Quantity
Desert Eagle IMI, Kal.44	1250 EUR = 0.351 B	<input type="text" value="1"/> X <input type="button" value="Buy now"/>
Ammo, 50 Rounds	45 EUR = 0.013 B	<input type="text" value="1"/> X <input type="button" value="Buy now"/>

Attempting to possess ammunition with intent to endanger
life
(Criminal Attempts Act 1981)





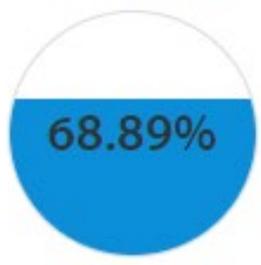
AMOUNT TRANSACTED
0.01213923 BTC

FEES
0.00006744 BTC

RECEIVED
less than a minute ago

CONFIRMATIONS 
0/6

Confidence 



Miner Preference



Size	254 bytes
Lock Time	567993
Version	1
Relayed By:	69.164.199.119:8333

[API Call](#) [API Docs](#)

Details

1 Input Consumed

0.01220667 BTC from
 1FoWyxwPXuj4C6abqwhjDWdz6D4PZgYRjA (output)



3 Outputs Created

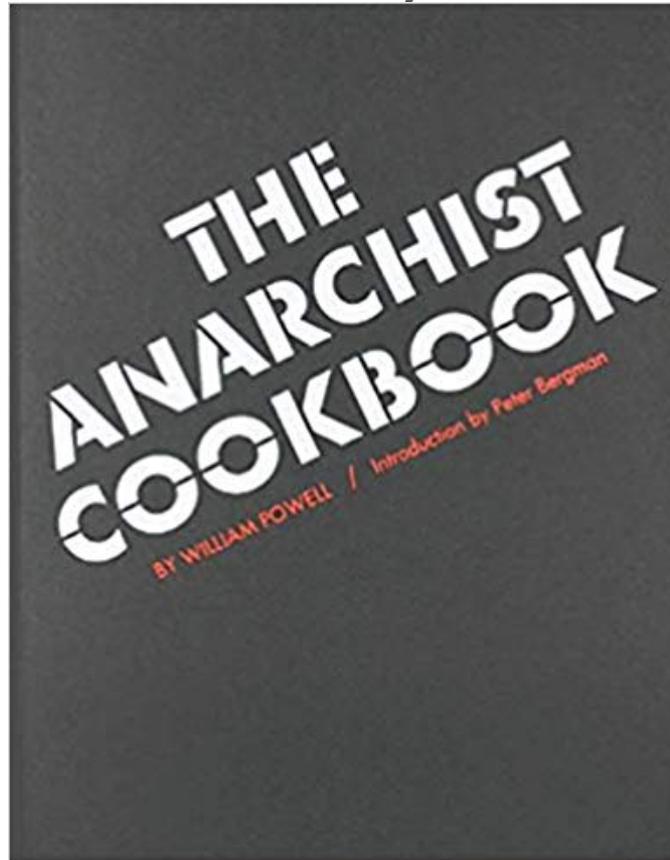
- 0.0 BTC Null Data Transaction
- 0.01213383 BTC to
 1FoWyxwPXuj4C6abqwhjDWdz6D4PZgYRjA (unspent)
- 0.0000054 BTC to
 3L9fwioehLN5yKu1DE8ctaPbgGVtDKHaB (unspent)

Estimated Value Sent : 0.0000054 BTC ([more](#))

Files & File Sharing

- Simple
- Peer-to-Peer
- Encryption

Possessing a document containing terrorist information (Terrorism Act 2000)



<https://amzn.to/2TKtwyq>

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Ammunition, explosives and blast analysis

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Adrian Wilkinson MBE

Senior Forensic Explosives Engineer

specialising in ammunition, explosives and blast analysis

- An internationally recognised and leading forensic explosives engineer.
- Adrian's 30+ years of experience, particularly those in conflict or immediate post-conflict environments, have given him an unrivalled level of expertise in explosive engineering from the perspective of ammunition and explosive safety, blast analysis, ammunition accident investigations, sanctions investigations and integrated war crimes investigations.

Committee memberships

- Chartered Engineer and Fellow of the Institute of Explosive Engineers

Notable cases

- UN Sanctions Committee Investigator for Sudan, Yemen and Libya
- Explosions in maritime environment



Expert analysis of cases involving explosions and explosives

Issues

- Forensic Explosive Laboratory provide expert evidence to CPS on presence and type of explosives and explosive devices only.
- FEL very reluctant to comment on probable or potential blast effects in cases of possession. Analysis of low level blast effects useful for mitigation (Explosion Consequence Analysis).
- Explosive Substances Act 1883 requires proof that possession is not for “lawful object”. Pyrotechnic substances can be used in fireworks.
- Classification of low explosive substances may be a ‘grey’ area.
- Viability of recovered improvised explosive devices can be challenged.

Expert analysis of cases involving explosions and explosives

Areas for defence exploitation

- Low explosive substances under the Explosive Substances 1883 can often also be categorised as pyrotechnic substances under the Explosives Act 2014.
- Change charge to MSER 2014?

Forensic Equity

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With services provided by some of the most experienced scientists in Europe, our clients can be safe in the knowledge that they are accessing an unrivalled source of expertise

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