

# Postgraduate Diploma in IT Forensics

Week 7 of Module 5: Collecting Digital Evidence & Presentation in Court

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# 1 Prologue

## 1.1 Help

- Blue means "I am a link; please click me."

## 1.2 Contact info

- Personal email
  - [hayson.tse](mailto:hayson.tse)

## 1.3 Copyright

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## 1.4 Disclaimer

- All materials come from the public domain. There are no government or trade secrets.
- Newspaper clippings may or may not contain the complete sets of allegations in relation to a case.
- A person who has been reported by newspaper clippings as being arrested or charged is presumed innocent until he is convicted or even until his appeal against conviction is dismissed.

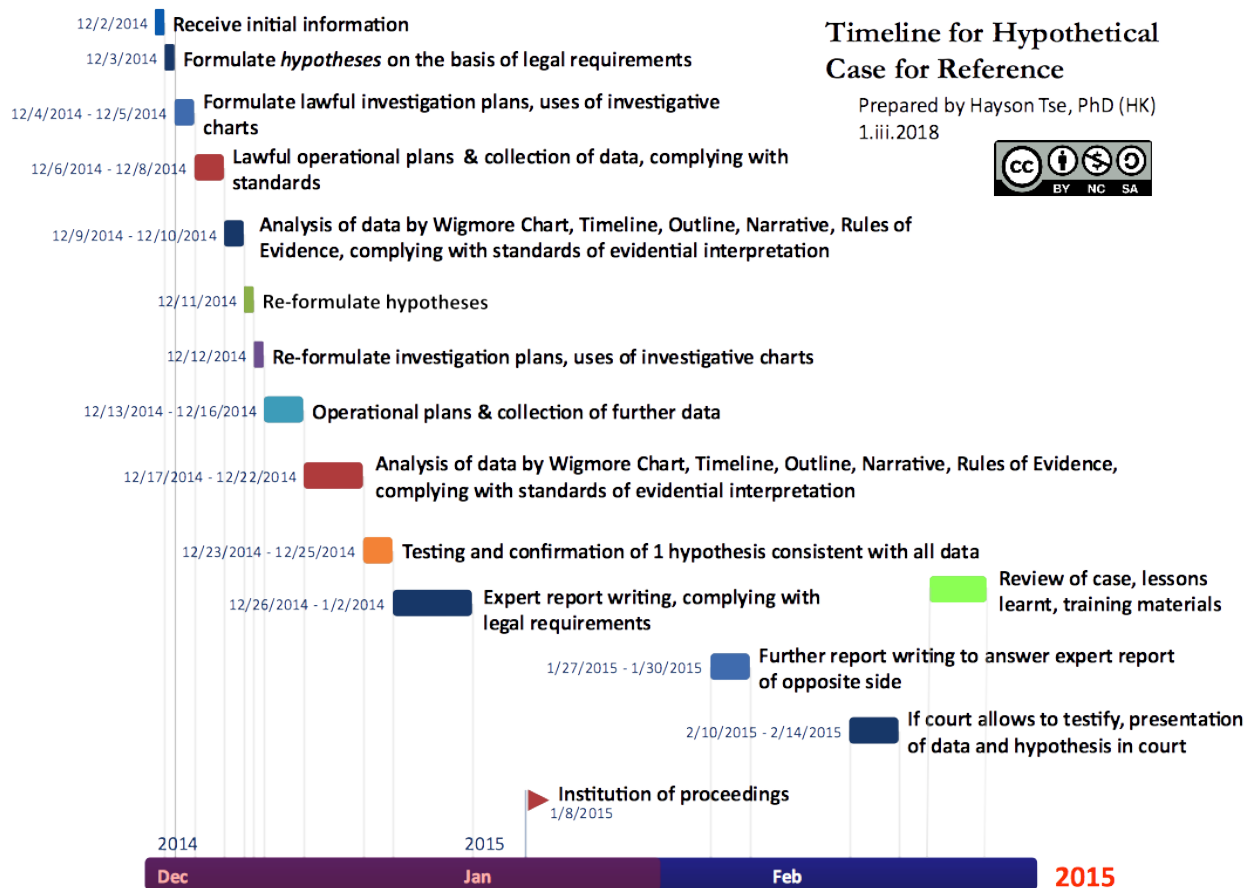
## 1.5 Classroom regulations

- [HKU SPACE Handbook](#)
- No reservation of seats.
- No eating or drinking.
- Turn off all mobile phones and pagers.
- No smoking at all HKU SPACE learning centres and the University campus.
- *No video / audio recording, unless with the permission of the Programme Director / Manager*
- The Programme Direction / Manager may impose any conditions when granting the permission.
- No unattended personal belongings.

## 1.6 Important dates

- Assignment: 2 May 2019
- EXAMINATION: 6 June 2019

## 1.7 Overview of your work cycle



## 2 Admissibility

### 2.1 Expert was also the officer in charge

- Expert was in charge of the investigation of the prosecution of the criminal case
- His evidence was inadmissible because of bias
- *The Queen v. Kai Tai Construction Engineering Company Limited* HCMA 1123/1995

## 3 Disclosure

### 3.1 Classic cases

- *Brian Alfred Hall v. HKSAR* (2009) 12 HKCFAR 562
- *HKSAR v. Lee Ming Tee (No. 2)* (2003) 6 HKCFAR 336

### 3.2 Exceptions to disclosure

- Legal professional privilege
- Public interest immunity

## 4 Cases on Disclosure

### 4.1 *Ch'ng Poh*

- Appeal (15 January 1996): *The Queen v. Ch'ng Poh* CACC 333/1994

“122. In our view, the tapes should properly be considered as unused material. Undoubtedly they should have been disclosed to the defence at a much earlier date. It is a matter of importance that the disclosure of the tapes was not made known to Keith J during the trial as he was in a far better position than this court to evaluate the effect of the late disclosure and make an order which would provide for the interests of all parties. The decision not to make an application while not necessarily fatal does have a significant bearing on the outcome of this application, we must still consider whether in these circumstances it is expedient or in the interests of justice that the application should be acceded to.”

“123. Having regard to the material on the tapes, Mr Aiken has made good his submission that nothing new of importance has been revealed and that the material is exclusively peripheral to the main issue before the jury whether the appellant was a party to the conspiracy in the first charge.”

“124. The tapes ought to have been disclosed timeously to the defence. They were not disclosed until late. Defence counsel chose not to raise this late disclosure with the judge to obtain his ruling upon the matter. This late disclosure was an irregularity in the trial but for the above reasons it would not have made any difference to the outcome and in all the circumstances it was not a material irregularity.”

### 4.2 *HKSAR v. A*

- Appeal (16 September 2015): *HKSAR v. A* CACC 400 of 2013 (English)
- Appeal (16 September 2015): *HKSAR v. A* [2016] 5 HKLRD 406; CACC 400 of 2013 (Chinese)

“22. In *HKSAR v. Lee Ming Tee and The Securities and Futures Commission* (2003) 6 HKCFAR 336, the Court of Final Appeal stated clearly that it was the prosecution’s duty to disclose to the defence relevant material (including information) which may undermine its case or advance the defence case. The stringent and firm obligation of disclosure will maintain the criminal trial as the appropriate

forum for determining the truth or falsity of criminal allegations.”

“23. In *HKSAR v. Shum Leung* (transliteration) (CACC632/2002), the Court of Appeal ruled that, as the prosecution did not disclose certain material evidence, the conviction in that case was unsatisfactory, with the result that the appeal was allowed and the conviction quashed.”

“26. In our view, the Department of Justice and the police need to look further into the way the police handled those telecommunications records in the present case in order to prevent similar incidents from happening in the future.”

“27. Mr Cheung also submitted that there was direct and clear guidance with regard to the exercising of due diligence on the prosecutor’s part to disclose relevant material in The Statement of Prosecution Policy and Practice – Code for Prosecutors issued by the Department of Justice in 2009, but the guidance was shortened in the Prosecution Code 2013 published in 2013. We are not required to discuss the contents of these two Codes, but we hope the Department of Justice will review the relevant contents to find out whether any improvement is needed.”

### 4.3 *HKSAR v. Ip Tsz Yau*

- First trial (28 May 2015): *HKSAR v. Ip Tsz Yau* DCCC 70 of 2015 (Reasons for Verdict)
- Appeal (26 January 2017): *HKSAR v. Ip Tsz Yau* [2017] 1 HKLRD 1261

“34. The duty of disclosure by the prosecution is, of course, a continuing one. We also find it strange that when it became apparent what the defence case was, and that there were 5 other officers present at the scene who could have shed light on the defence allegations, prosecuting counsel himself (not Mr Sean) did not call for their notebooks and arrange for copies to be passed to the defence. It remains part of prosecuting counsel’s duty to satisfy himself that all relevant disclosure has been made. It is somewhat surprising, therefore, that the ‘Notes for Prosecuting Counsel/Solicitors’, which encompass 8 pages of instructions accompanying the ‘Brief’ to prosecute, make no reference to the important role of a prosecuting counsel/solicitor in respect of the ongoing duty of disclosure of unused material. In fairness to prosecuting counsel in the present case, who was prosecuting on fiat, and from whom we have also not heard, it seems clear from our enquiries that the notebooks were evidently not seen by, nor passed to, him and were, in any event, written in a language which he would not immediately have understood. That, however, cannot abrogate the vital duty upon the prosecution to make necessary and timely disclosure.”

“35. We wish to remind prosecuting authorities of the adjuration from the Court of Final Appeal in *HKSAR v. Lee Ming Tee and Securities and Futures Commission*, at

para's 161-162:"

"161. The prosecution's duty is to disclose to the defence material (including information) in its possession or control. That will ordinarily include materials that have been gathered by the investigating agency (the police) and it is the responsibility of the prosecution to make the investigating agency aware of the need to make available all relevant materials. In this sense, the prosecutor's duty is to disclose to the defence all relevant material in its possession or control and in the possession or control of the investigating agency."

"162. In order to ensure that all disclosable material is provided to the defence, prosecuting counsel should instruct investigating officers and, where appropriate, witnesses to bring to counsel's attention any material that may be disclosable. In other words, disclosable material known to a witness, including an expert witness, should be channelled through prosecuting counsel who should take appropriate steps to facilitate that happening."

"36. We have been shown, in the course of argument, the typed list of used and un-used material considered by the Department of Justice necessary to be given to the defence at the time of transfer of this case from the Magistrate's Court to the District Court. Such a list is normally prepared by the Department of Justice, reviewed by Government counsel and attached to the material which is to be disclosed. Needless to say, the list in this case does not include the notebooks of the 5 other officers, which, even without appreciating what the defence might be, ought to have been disclosed to the defence before trial. Even if it had not been disclosed at that stage, it was obviously incumbent on the prosecution, in the continuing exercise of their duty, to disclose the material once it became clear that it was potentially relevant to the issues before the court. . ."

"36. . . It would not, we think, have taken much effort to realise, since there were 5 other officers present at the scene in question, the events in relation to which were being hotly contested, that their notes of what took place were potentially relevant and, therefore, disclosable to the defence. Unfortunately, they were not disclosed."

- Second trial (18 August 2017): [HKSAR v. Ip Tsz Yau](#) DCCC 70/2016 (Reasons for Verdict in Chinese)

#### 4.4 *HKSAR v. Wun Shu Fai*

- Appeal (16 March 2017): *HKSAR v. Wun Shu Fai* [2017] 2 HKLRD 896; CACC 48/2015

“74. It is necessary that the principles of disclosure, articulated in the Department of Justice’s ‘Prosecution’s Code’ are underpinned and given effect by a simple system in which prosecuting counsel give directions to investigating police officers in respect of areas of potential unused material, requiring confirmation as to whether or not such material does or does not exist. Such directions and responses ought to be in writing and retained. Thereby, an ‘audit trail’ is created, permitting counsel prosecuting the case to be fully informed of the steps taken to identify, retain and disclose unused material. Also, the issue of full and proper disclosure by the prosecution is a matter that, in appropriate cases, judges may wish to raise and examine in some detail in pre-trial reviews.”

“76. It is to be noted that the Code of Practice, re-issued in 2015, was promulgated pursuant to section 23 of the Criminal Procedure and Investigations Act, 1996. Sections 21 and 27 of the Act provide, broadly speaking, that the common law rules as to disclosure and criminal investigations respectively shall not apply after the Act and the Code are brought into force. In Hong Kong, we have no such legislation.”

“77. In the judgment of the Divisional Court in *R (Ebrahim) v Feltham Magistrates’ Court* ([2001] 1 WLR 1293) Brooke LJ observed the provisions of the Code “preserve and amplify common law rules which were described by the judges before the Code came into force.” (paragraph 12). That case was concerned with the duty of investigators to ascertain, obtain and retain CCTV, if relevant to a criminal investigation.” (brackets added)

“78. It is to be noted that the Code of Practice was issued under Part II of the Act, namely in respect of ‘Criminal Investigations’. Paragraph 2.1 defines ‘material’ as including ‘information and objects, which is obtained or inspected in the course of a criminal investigation and which may be relevant to the investigation.’ Paragraph 4.4 provides ‘Where information which may be relevant is obtained, it must be recorded at the time it is obtained or as soon as practicable after that time.’ Obviously, those provisions resonate with the common law requirement that investigators ascertain, obtain and retain information as well as objects. It was a requirement that a record was made which was adequate to disclose the circumstances leading to the meetings between police officers and the two accomplices and the nub of what was said between them.... That requirement did not dictate the making of witness statements or verbatim transcripts of what had been said. It may be that in his review of the disclosure guidelines, given the fact that Code preserves and amplifies the common law rules, the DPP will find the Code a useful point of reference.”

#### **4.5 *Nutanix Hong Kong Limited and 4 ors.***

- *Competition Commission v. Nutanix Hong Kong Limited and 4 others* [2018] HKCT 1

“76. . . documents fall outside even the generous ambit of disclosure as explained in *HKSAR v. Lee Ming Tee*, supra, and *SFC v. Wong Yuen Yee*, supra. It is to be noted that in *Lee Ming Tee*, Sir Anthony Mason NPJ said (at §§148, 161), after referring to the judgment of Lord Hope in *R v. Brown (Winston)* [1998] AC 367, 377D, that the duty of disclosure related to materials ‘gathered by the investigating agency’. In the seminal case of *R v. Ward* [1993] 2 All ER 577, 601j, the English Court of Appeal also referred in this context to ‘all the material evidence which the prosecution have gathered’. In *Wong Yuen Yee*, the Court also stated (at §82) that the required disclosure ‘should ordinarily include the information and documents [the SFC] has obtained from the investigation of the transactions that are eventually relied upon and complained of’.”

“77. . . internal documents generated within the [regulatory authorities] do not constitute materials gathered or obtained by it in the investigation. I think that would generally be the case. This is perhaps why the Prosecution Code published by the Department of Justice of Hong Kong states (at §12.6): “Internal records and materials generated by the prosecution in the preparation of the case may not be disclosable” (italics added). Likewise, the practice of the European Commission, as stated in Commission Notice on the rules for access to the Commission file in cases pursuant to Articles 81 and 82 of the EC Treaty, Articles 53, 54 and 57 of the EEA Agreement and Council Regulation (EC) No 139/2004, is that:”

“Internal documents can be neither incriminating nor exculpatory. They do not constitute part of the evidence on which the Commission can rely in its assessment of a case. Thus, the parties will not be granted access to internal documents in the Commission file. Given their lack of evidential value, this restriction on access to internal documents does not prejudice the proper exercise of the parties’ right of defence.” (footnotes omitted)

“Examples of internal documents given in the footnote are:-”

“drafts, opinions, memos or notes from the Commission departments or other public authorities concerned”.

“78. The same approach is adopted by the Competition and Markets Authority of the UK, allowing the authority to exclude “internal documents” from access by a relevant party: see rule 6(2) of the Competition Act 1998 (Competition and Markets Authority’s Rules) Order 2014 (SI 2014/458).”

## 5 Expert evidence

### 5.1 A case study: handing writing

- *Wang's wife v. Wang's father*
- Main issue at trial: the genuineness or falsity of the signature of a man so named as "Wang Teh Huei" on four documents
- Mr Teddy Wang Teh Huei was kidnapped on 10 April 1990 and had never been seen since.
- On 22 September 1999, upon the application of Wang's father, a High Court Judge granted leave to swear to his belief that Wang's death had occurred on or since 10 April 1990.

### 5.2 Introduction

- Wang's father applied to have a will executed by Wang on 15 March 1968 admitted to probate as Mr Wang's last will (the 1968 will).
- Wang's wife opposed and applied to have four home-made documents purportedly dated 12 March 1990 be admitted as the last will of Wang.
- The purported signatures of Wang were written with fountain pen in liquid ink in four home-made documents (the 1990 documents).
- Wang's father said they are forgery.
- Wang's father also said the purported signatures of Tse are forgery.
- The judgement of trial (date: 21 November 2002)
- [English available here](#)
- [Chinese available here](#)
- 172-day trial which took place over the 14-month period between 6 August 2001 and 15 October 2002
- Court of appeal: *Wang Din Shin v. Nina Kung* CACV 460/2002
- Court of Final Appeal: *Nina Kung v. Wang Din Shin* (2005) 8 HKCFAR 387

### 5.3 Burden and standard of proof

"4. As the propounder of "the 1990 documents," the Wife had the burden to prove - on a balance of probability - that Wang had duly executed them so that the court could pronounce them, as his last will in solemn form. If she failed, the Father succeeded, as the due execution of "the 1968 Will" was not disputed."

"5. . . .The Father did not have the burden to prove Wang did not." (CFA)

"7. If the Father wished to establish that "the 1990 documents" were forged, he had to adduce strong and cogent evidence, as the standard of proof should commensurate with the gravity of the allegation and the seriousness of the consequences. . . ." (CFA)

## 5.4 Plaintiff's allegation of simulated forgery

"9.1 The plaintiff's case is that the signatures of Wang on each of the four questioned 1990 Documents were simulated forgeries. There are basically two main ways of forging a signature. The first one is by way of simulation (the other one is by way of superimposition tracing (and the other kind of tracing is projection tracing) which shall be considered when Tse's signatures are considered later on)." (trial)

"12.1 The plaintiff alleged that the four purported signatures of Tse Ping Yim are forgery reproduced by the other method, i.e. superimposition tracing . . . The basic technique of superimposition tracing is to copy the signature by following the lines or strokes of a genuine signature." (trial)

"9.2 Simulation will involve the forger studying one or more genuine signatures of the person whose signature he wants to forge. He may then practise writing out the signature free hand until he is confident enough to produce the signature on the forged document. The forgery is produced by the forger writing out the signature free hand. At the time of writing, he may or may not have the model or reference signature(s) besides him for his easy reference. Further he may or may not have a model underneath the paper to help him and guide him through the simulations." (trial)

## 5.5 Expert witnesses

- Plaintiff's three handwriting experts: 2 civilians and 1 Government Chemist
- Defendant's three handwriting experts: 3 civilians (from Mainland) who compiled 1 joint report (Only Professor Jia gave evidence)

"569. . . .For Mr Wang Snr they were:"

"(i) Gus Lesnevich, an American handwriting expert. He was in the witness box for 7 days."

"(ii) David Tsui, a Chinese handwriting expert based in Canada. He was in the witness box for 19 days; and"

"(iii) Mr Patrick Cheng, an independent expert from the Hong Kong Government Laboratory. He was in the witness box for 10 days." (CFA)

"578. Mrs Nina Wang commissioned a report from three eminent Chinese writing experts. It appears that all three were in court but, in the outcome, only one,

Professor Jia, gave evidence. His evidence in chief lasted 17 days and he was cross-examined for 17.5 days." (CFA)

## **5.6 Plaintiff's case**

"1.8 The plaintiff's two handwriting experts (Mr Gus Lesnevich and Mr David Tsui) both opined that the signatures of both the deceased and the purported witness Mr Tse on the 1990 Will were forged. . . . [Government Chemist] opined that the purported signatures of Mr Tse were forged and that the purported signatures of the deceased on the 1990 Will 'might not have been written by him'." (trial)

## **5.7 Defendant's case**

"1.10 . . . opined that both the signatures of the deceased and the witness Mr Tse on the 1990 documents were all genuine." (trial)

"1.11 . . . two experts both asserted that the ink-dating methods performed by the plaintiff's expert were not reliable. One of the defendant's experts also expressed the view that the samples extracted from the questioned documents were contaminated during the process of examination." (trial)

"1.12 In respect of Mr Tse's signatures, the defendant produced a statutory declaration of Mr Tse dated 6 September 1999 and his affirmation dated 9 September 1999 to the effect that he was asked by the deceased to sign his name on certain documents in the evening on 12 March 1990 inside the deceased's office. Since then Mr Tse passed away on 6 December 1999." (trial)

## **5.8 Principles and basis**

- Principles and basis of examining and evaluating handwriting and signature evidence

"7.1 Both sides agree that in comparing handwriting and signature between the known and the questioned ones, one has to note both similarities and differences." (trial)

"7.2 However the defence complained that the plaintiff's experts (Mr Gus R. Lesnevich ("GL"), Mr Cheng Yau Sang, Patrick ("Cheng") and Mr Tsui Chee Keung, David ("Tsui") have over-emphasised on similarities in comparing handwritings and on differences when comparing signatures. The plaintiff, on the contrary, complained that experts for the defence ignored those significant similarities in comparing handwritings and those significant differences in comparing signatures." (trial)

## 5.9 Summary of trial

“579. At trial, Yam J accepted the evidence of the three experts called by Mr Wang Snr and rejected that of Professor Jia and the opinion in the Joint Report.” (CFA)

## 5.10 The defence expert at trial

“9.11 . . . The report and Prof. Jia’s evidence were to the effect that the four questioned signatures of Wang were genuine signatures of him although in his evidence, it appears that most of the points of similarity set out in the report had not been relied on. In fact, Counsel for the plaintiff submitted that none of these points of similarity set out in his report had been relied on. Prof. Jia gave me the impression that *he was actually trying to alienate himself from that report of which he is one of the three authors*. He kept on apologizing under cross-examination that the report was not accurate in choosing the sample signatures for comparison. It gave me the impression that *the report was produced in haste* which was filed and served at the last possible moment. That partly explains why it took Mr Lee, Leading Counsel for the defence, 17 days in the examination-in-chief of Prof. Jia instead of producing the two reports for the defence and tendering him for cross-examination. I shall say something about the length of this trial at the end of my judgment.”

“9.57 In conclusion, the macro analysis pointed towards forgery as contended by all three experts of the plaintiff rather than genuineness as *argued illogically and evasively* by the defendant’s experts and in particular Prof. Jia. *Their opinion and arguments, upon analysis, would only destroy their credibility and independence* which will be seen to even more severe extent in the micro analysis in the next chapter.”

“11.1 There is no dispute that no tremors are found in any of the sample signatures of Wang right from 1958 all the way up to 1985. It is also common ground that in the four questioned signatures, there are tremors found at various places.”

“11.3 The plaintiff’s case is that the four questioned signatures were written more slowly than the samples and the tremors were the consequence of slow writing. Tremors, unless explained, are of course a well-known feature indicative of forgery, because it is often the case that when the forger has to take on board other people’s writing habit, consequently he will have to write unnaturally since he must abandon his own habit. Thus Counsel for the plaintiff submitted that all these tremors are signs of forgery rather than anything else.”

“11.4 The defendant’s experts likewise first considered whether the tremors were caused by forgery but they ruled against it because they considered that the strokes of the characters were normally written, and there were ‘no pauses in or rewriting of strokes, or rigid or awkward stroke movements’. Thus according to them the possibility of simulated forgery could be eliminated. Further, Prof. Jia

took the point that if there should be tremors associated with forgeries, the tremors should be found at the more difficult strokes and not on the easy strokes such as the long vertical or horizontal strokes.”

“11.5 The three defendant’s experts also entrusted their instructing entity in the Mainland to make investigation as to why there were tremors in these four signatures. After investigation, they were told by their instructing entity that on 10 March 1990, Wang fell from a horseback, leading to injuries to various positions of his head and arm etc. It was also said that the instructing entity also sent them the hospital bill and also the photographs of the shirts and underwear stained with large patch of blood worn by Wang at the time of the injury. The three experts thus considered that there was a direct relationship between the tremors and the injury. For the same reason they also formed the opinion that the questioned signatures were written after Wang sustained his injury in March 1990.”

“11.8 Further the fact that this view was put forward *without any sound basis* would indicate that these three handwriting experts retained by the defendant were prepared to *go out of the way of giving an opinion favourable to the defendant*. I have no doubt as to the high credentials and ability of the three of them especially when Prof. Jia and Xu are both textbook writers. But regrettably I have to say that *I doubt only their reliability and credibility*. In my view they are very powerful **hired guns** which I shall consider more fully in Section III herein on ink-dating when I consider the role of an expert and the criteria of accepting or rejecting scientific evidence.”

## 5.11 The findings by the lower courts

- 21 November 2002

“5. The trial judge held that both the Wang signatures and the Tse signatures on the 1990 documents were forgeries. In the Court of Appeal, Yeung JA upheld both findings. Yuen JA agreed with the finding that the Wang signatures were not genuine, but was not satisfied to the required standard of proof that the Tse signatures had been proved to have been forged. Waung J disagreed with the trial judge and held that both the Wang signatures as well as the Tse signatures were genuine.” (CFA)

## 5.12 Arrest

- Date of judgement (trial): 21 November 2002
- Police arrested the wife on [12 December 2002](#) (on police bail 5 million)
- [28 January 2005](#): appeared in court, prosecuted with forging documents and perverting the course of justice

### 5.13 The Court of Final Appeal

- available [here](#)
- First date of hearing: 11 July 2005
- Date of judgement: 16 September 2005
- Burden and standard of proof

“194. The conclusions reached in relation to the applicable principles so far discussed may be summarised as follows:”

“(a) The appellant (wife), as proponent of the 1990 Will, bears the legal or persuasive burden to prove its execution by Mr Wang on the balance of probabilities. She has to satisfy the court at the end of the day that it is more likely than not that the 1990 Will was in fact signed by Mr Wang.” (brackets added)

“(b) The respondent(father) has positively pleaded forgery in circumstances necessarily implying the existence of a broader conspiracy. He has the evidential burden of adducing evidence probative of such forgery which is to be assessed applying the Re H standard and the Lee Ming Tee principle when considering the probabilities and deciding the probative value to ascribe to such evidence.” (brackets added)

“17. What an expert observes by examining the signature in question and comparing it with known and accepted signatures of the writer are matters of fact. On the other hand, the drawing of a conclusion based on the facts which he has observed is a matter of opinion. His opinion is admissible as evidence, subject to one qualification. That is, his opinion need not be accepted by the judge or jury if they are not convinced by the reasons in support of such opinion. The judge or jury can come to their own conclusions, based on the facts and their own reasoning.”

“18. However, an expert has 2 advantages over the judge and jury. First, he has the scientific techniques or means to find out facts which a judge or jury may not be equipped to do. Secondly, an expert has the necessary experience and expertise. This can help him look for the relevant facts and come to a reasoned conclusion. . .”

“19. However, at the end of the day, it is for the judge or jury to form their own independent judgment with the assistance of the expert. After all, they are the tribunals of fact. The duty of expert witnesses is, as Lord President Cooper said in *Davie v. Edinburgh Magistrates* [1953] SC 34 at 40: ‘to furnish the Judge with the necessary scientific criteria for testing the accuracy of their conclusions, so as to enable the Judge or jury to form their own independent judgment by the

application of these criteria to the facts proved in evidence.’

“20. Given the nature of expert evidence, one has to approach such evidence with caution. While the factual part of the evidence of an expert is verifiable and is reliable or unreliable as any other piece of factual evidence, the opinion part of an expert’s evidence is totally different. Handwriting analysis is not an exact science and the opinion of a handwriting expert, however objective it is, is inherently less precise than a conclusion based on the results of a scientific analysis. The acceptability of an expert’s opinion depends very much on how sound and convincing the reasons for his opinion are.”

“83. In my view, the fundamental problem is that in the absence of positive evidence from any of the experts, there is simply no evidential basis for the judge’s finding that there was retouching or unnatural writing in the Wang signatures. Without such finding, there is nothing to counter the unchallenged evidence that the Wang signatures were written naturally and with a free flowing style which are significant features pointing towards genuineness. It would seem that the whole exercise is an example of the judge having concluded that the signatures were forgeries was looking for material to support that conclusion, adopting counsel’s written submissions almost verbatim in the process.”

“. . . [The Judge] concluded in paragraph 11.18: ‘On the other hand, the very minor nature of the tremors found in the strokes of the questioned signatures would tally with the kind of tremors caused by psychological cause, such as being anxious or exciting, which would probably be the sort of psychological condition only of either the forger or Wang himself. Consequently the medical evidence cannot support the contention that these tremors were caused by Wang only. Since I found for those reasons in the last chapter that the four questioned signatures are forged signatures of Wang, I would also find that probably the tremors were caused at least partly by the psychological condition of the forger rather than Wang himself. They are also tremors of the forger when he tried to slowly simulate the signature of Wang according to his two models.’ ”

“87. I must confess I do not understand the logic of this conclusion. It is tantamount to saying that ‘because I have found these signatures to be forgeries, I now hold that these tremors are signs of forgery.’ This approach is blatantly wrong.”

“119. Furthermore, three of the documents . . . were written on flimsy paper. While the Tse’s signatures were written in ball pen ink, the Wang signatures were written with a calligraphic pen with a broad nib. . . . such instrument would reduce the writing speed and increase the difficulty in writing, not to mention simulation. As a result of the use of such pen and paper, there were scratches and cuts in the paper. It can be strongly argued that a forger would have exercised

greater care. Why would he or she risk damaging the paper as it did by using such writing instrument and paper? The least he or she would do was to do it in such a way so as to minimize the risk of being exposed and not to draw attention to any inadequacies in the forgery.”

“120. In my view, these matters tend to show the inherent improbabilities of a forgery. The judge had not fully appreciated their relevance and importance.”

“121. It can be seen from the above discussions that in relation to the handwriting evidence, the judge had fallen into several errors. First, . . . Secondly, . . . Thirdly, . . . Fourthly, . . . Fifthly, . . . The majority of the Court of Appeal had not corrected these errors. As a result of these errors, the conclusion of the judge and the majority of the Court of Appeal that the Wang signatures were forgeries was fundamentally flawed and cannot stand.”

“122. It is necessary to consider all the handwriting evidence in the round in a consolidated evaluation. . . . Bearing also in mind the inherent probabilities pointing away from a conclusion of forgery, I must say that all the handwriting evidence when considered together is quite inconclusive. It cannot be said with any degree of confidence that a finding of genuineness is any more likely than a finding of forgery or vice versa.”

“124. The professor is a handwriting expert trained in the Mainland. I need not repeat his qualifications and experience. Suffice it to say, he is a well-known expert in this field. The judge is of course entitled to accept or reject the professor’s opinion. *This depends on how sound and convincing the reasons given by Professor Jia are in support of his conclusions.* However, the judge described him as a **hired gun**. Furthermore, the judge had twice in his judgment remarked that the professor was **dishonest**. These are very harsh comments and serious accusations to make on and against an expert, unless there are very good grounds to do so. **In my view, there are none.**”

“445. As previously indicated, an extraordinarily large portion of Yam J’s judgment consisted of passages copied verbatim from the written submissions of the parties without acknowledgment. At the hearing before this Court, the appellant produced marked up copies of the judgment colouring in blue those parts copied from the appellant’s submissions and in pink those taken from the respondent’s submissions. The vast part of the judgment rejecting the evidence given on ink-dating by Mr Spekin as a witness for the respondent was in blue. . . .”

“. . . Waung J estimated that not less than 50% of the rest of the judgment was in pink, and that in the handwriting section”the copying was something like 95% or

more". Those estimates have not been challenged. The appellant complains that this clearly demonstrates that Yam J did not exercise independent judicial judgment in deciding the case against her and that, distasteful though the suggestion was, at the very least, she was entitled to a re-trial."

"455. It is therefore my view that the extent of the copying in such circumstances gives rise to doubts as to whether Yam J did bring an independent mind to bear on his judicial decision-making, this being a ground of complaint which the Court of Appeal did not sufficiently acknowledge."

"456. The point is, however, academic. . . .Moreover, in this Court, the complaint is academic for the additional reason that the appeal succeeds on substantive grounds."

"649. The Court therefore unanimously allows the appeal, sets aside the orders made in the courts below and orders that the will of Mr Wang Teh Huei dated 12 March 1990 contained in the document marked by Yam J as 'Document A' be admitted to probate as his last will. . . ."

#### **5.14 Name cleared**

- On [2 December 2005](#) 8-year battle
- Prosecutors dropped charges that Nina Kung falsified the will and attempted to pervert the course of justice.
- [3 April 2007](#), Nina Kung passed away

#### **5.15 What are the lessons learnt for experts?**

Graphical image removed

### **6 Expert reports - RHC**

#### **6.1 Rules of the High Court (Chapter 4A)**

- [available here](#)
- Summary re experts:-
  - Overriding duty to Court and declaration of duty to Court
  - Statement of truth
  - Code of conduct (Appendix D)
  - Form of expert report

#### **6.2 Order 38 Evidence, Rule 35A Expert witness's overriding duty to Court**

- O.38, r.35A

- (comparable to sections, subsections)

“(1) It is the duty of an expert witness to help the Court on the matters within his expertise.”

“(2) The duty under paragraph (1) overrides any obligation to the person from whom the expert witness has received instructions or by whom he is paid.”

- O.38, r.37A
- An expert report disclosed under these rules must be verified by a statement of truth in accordance with Order 41A.

### **6.3 Order 38 Evidence, Rule 37B Duty to provide expert witness with copy of *code of conduct***

- O.38, r.37B

“(1) A party who instructs an expert witness shall as soon as practicable provide the expert witness with a copy of the *code of conduct* set out in Appendix D.”

“(2) Where the Court has under rule 4A(1) ordered that 2 or more parties shall appoint a single joint expert witness, paragraph (1) applies to each of the parties.”

“(3) If the instruction is in writing, it must be accompanied by a copy of the *code of conduct* set out in Appendix D.”

### **6.4 Order 38 Evidence, Rule 37C Expert witness’s declaration of duty to Court**

- O.38, r.37C

“(1) An expert *report* disclosed under these rules is *not admissible* in evidence *unless* the report contains a declaration by the expert witness that-”

“(a) he has read the code of conduct set out in Appendix D and agrees to be bound by it;”

“(b) he understands his duty to the Court; and”

“(c) he has complied with and will continue to comply with that duty.”

- O.38, r.37C

“(2) *Oral expert evidence is not admissible unless* the expert witness has declared, whether orally or in writing or otherwise, that-”

“(a) he has read the code of conduct set out in Appendix D and agrees to be bound by it;”

“(b) he understands his duty to the Court; and”

“(c) he has complied with and will continue to comply with that duty.”

“(3) Paragraph (1) does not apply to a report that was disclosed under rule 37 before the commencement of this rule.”

## **6.5 Order 41A rule 5 Form of statement of truth of duty to Court**

- O.41A, r.5

“(1) The form of the statement of truth verifying a document *other than* a witness statement or expert report is as follows-”

“[I believe] [the (plaintiff or as may be) believes] that the facts stated in this [name document being verified] are true..”

“(2) The form of the statement of truth verifying a witness statement or is as follows -”

“I believe that the facts stated in this [name document being verified] are true and (if applicable) the opinion expressed in it is honestly held.”.

## **6.6 App D Code of conduct for expert witnesses**

- Application of the code

“1. This code of conduct applies to an expert who has been instructed to give or prepare evidence for the purpose of proceedings in the Court.”

- General duty to Court

"2. An expert witness has an overriding duty to help the Court impartially and independently on matters relevant to the expert's area of expertise."

"3. An expert witness's paramount duty is to the Court and not to the person from whom the expert has received instructions or by whom he is paid."

"4. An expert witness is not an advocate for a party."

- *Declaration of duty to Court*

"5. A report by an expert witness is *not admissible* in evidence *unless* the report contains a declaration by the expert witness that-

"(a) he has read this code of conduct and agrees to be bound by it;"

"(b) he understands his duty to the Court; and"

"(c) he has complied with and will continue to comply with that duty."

- *Declaration of duty to Court*

"6. *Oral expert evidence is not admissible unless* an expert witness has declared in writing, whether in a report or otherwise in relation to the proceedings, that-

"(a) he has read this code of conduct and agrees to be bound by it;"

"(b) he understands his duty to the Court; and"

"(c) he has complied with and will continue to comply with that duty."

- *Expert report to be verified*

"7. A report by an expert witness must be *verified by a statement of truth* in accordance with Order 41A of the Rules of the High Court (Cap 4 sub. leg. A)."

- *Form of expert reports*

"8. A report by an expert witness must (in the body of the report or in an annexure) specify-"

"(a) the person's qualifications as an expert;"

"(b) the facts, matters and assumptions on which the opinions in the report are based (a letter of instructions may be annexed);"

"(c) the reasons for each opinion expressed;"

- *Form of expert reports*

"(d) if applicable, that a particular question or issue falls outside his field of expertise;"

"(e) any literature or other materials utilized in support of the opinions; and"

"8. (f) any examinations, tests or other investigations on which he has relied, and the identity and details of the qualifications of the person who carried them out."

"9. If an expert witness who prepares a report believes that it may be incomplete or inaccurate without some qualification, that qualification must be stated in the report."

"10. If an expert witness considers that his opinion is not a concluded opinion because of insufficient research or insufficient data or for any other reason, this must be stated when the opinion is expressed."

"11. An expert witness who, after communicating an opinion to the party instructing him (or that party's legal representative), changes his opinion on a material matter shall forthwith provide the party (or that

party's legal representative) with a supplementary report to that effect which must contain such of the information referred to in section 8(b), (c), (d), (e) and (f) as is appropriate."

## **7 Contents**

### **7.1 Casey**

- Eoghan Casey, Digital Evidence and Computer Crime, Forensic Science, Computers and the Internet, 3rd edition.



### **7.2 Types of expert interpretation**

- Technical/factual interpretation.
- Investigative interpretation.
- Evaluative interpretation.

### **7.3 Technical/factual interpretation**

- It's amphetamine.
- Petrol was detected in the sample of fire debris.
- The blood sample contains 95 mg % alcohol.
- The database says the profile matches Burt.
- The gun is subject to control by firearms legislation.
- The stain is blood.
- The paint has a blue top coat.

### **7.4 Investigative interpretation**

- The fire was probably started deliberately.
- In my opinion the pattern and distribution of the blood spots suggests that the assault began in the living room and continued into the kitchen.

- The blue paint came from a 1963 Hillman Imp.
- The tyre deflated as a result of the impact.

## 7.5 Evaluative interpretation

- My findings are far more likely if the amphetamine came from the suspect's stock than if they had come from some other stock.
- My glass findings provide support for the view that the suspect broke the window rather than he poked his head through the broken pane afterwards.
- My observations are equally as likely if Ms X's or Mr Y's versions of events were true.
- The pattern and distribution of the blood spots are far more likely if
- Mr X had assaulted Mr Y than if he had been standing close to the assault when someone else did.

## 7.6 Types of expert reports

- Preliminary summary of findings (Threshold Assessment).
- Full investigative report.

## 7.7 Threshold Assessment

- Purpose : immediate investigative direction
  - Review initial evidence of crime-related behaviour
  - Review crime scene characteristics for a particular crime
  - Review crime scene characteristics for a series of potentially related crimes
- Common format
  - Abstract: Summary of conclusions
  - Summary of examinations performed
    - \* Examination of computers, log files, etc.
    - \* Victim statements, employee interviews, etc.
  - Detailed case background
  - Victim / target assessment
  - Equivocal analysis of others' work
    - \* Missed information or incorrect information
  - Crime scene characteristics
    - \* May include offender characteristics
  - Investigative suggestions

## 7.8 Practitioners' Tip

“Careful use of language is needed to present digital evidence and associated conclusions as precisely as possible. Imprecise use of language in an expert report can give decision makers the wrong impression or create conclusion. Therefore, digital investigators should carefully consider the level of certainty in their conclusions and should qualify their findings and conclusions appropriately.”

“In Forensic Science, certainty is a word that is used with great care. We cannot be certain of what occurred at a crime scene when we only have a limited amount of information. Therefore, we can generally only present possibilities based on the limited amount of information.”

## 7.9 Any difference amongst

- “two things are the same”
- “is consistent with”
- “is compatible with”

## 7.10 Practitioners’ Tip

“Many digital investigators use the terminology ‘is consistent with’ inappropriately to mean that an item of digital evidence might have been due to a certain action or event. For many people, to say that something is consistent with something else means that the two things are identical, without any differences. To avoid confusion, digital investigators are encouraged only to state that something is consistent with something else if the two things are the same and to otherwise use the terminology ‘is compatible with’.”

## 7.11 Summary

- Evidence that is “consistent with” a crime does not constitute proof of the crime to the required standard

# 8 Casey Anthony

## 8.1 Consistent with

- [Casey Anthony CSI: A Triumph of High-Tech Forensics?](#)
- Evidence that is “consistent with” a crime does not constitute proof

“In the Anthony case, the prosecution has attempted to show that the evidence they’ve gathered is “consistent with” their theory of how Caylee was killed. Prosecutors allege that Anthony conducted Internet searches for making chloroform, used the homemade chemical to knock her daughter out, put duct tape over Caylee’s mouth and nose and then dumped the body in the woods. Many of the experts in the case so far have testified that the evidence they’ve seen is “consistent” with these assertions.”

“But consistency is not as powerful in court as presenting evidence that points directly to the identity of a killer, explains Adina Schwartz, an expert in evidence law and science and a professor of law and philosophy at the John Jay College of

Criminal Justice, City University of New York. "What does 'consistent with' mean? It means 'could be,'" she says. That uncertainty will create room for the defense to make its case."

- Identifying human hairs isn't an exact science

"According to the prosecution's narrative, Anthony stored the body of her daughter in the trunk of her car after subduing the girl with chloroform."

"Investigators discovered hairs in the trunk, which they tested for DNA. This would be the part of the TV plot where we'd learn who owned the hairs. In reality, DNA testing only narrowed the identity. Because the hairs they found contained no roots or tissue, investigators could test only for mitochondrial DNA, which is passed down through female ancestors. This means the hairs could belong to as many as five people: Casey, her mother, grandmother and brother, and finally Caylee."

"They cannot say with scientific certainty that it's Caylee's, although it's suggestive that it's Caylee's," Lawrence Kobilinsky, a DNA expert and head of the forensic sciences department at John Jay College, says of the hairs."

"The hairs in the trunk had dark bands near the base, which prosecution experts testified indicate a decomposing body. Kobilinsky says the bands can also be caused by air pockets. "There are people that claim they can tell a difference, and so this may become an issue at trial," he says. "But this calls for subjective determination." In other words, two experts examining the same hair could have two opinions: that the darkening was caused by either decomposition or air pockets."

- The new science of odour analysis is controversial

"One of the most disputed pieces of evidence is the result of a new odor-analysis technique developed by Arpad Vass, a forensics anthropologist at Oak Ridge National Laboratory in Tennessee. He claims that his research on cadavers at the University of Tennessee's "body farm" (an outdoor research lab where donated bodies are allowed to decay to study human decomposition) yielded a database of 400 chemical vapors he calls "decomposition odor analysis." Vass testified that the air in Anthony's trunk contained definitive signs of decomposition."

"Prosecutors have also tried to show that the trunk contained unusual levels of chloroform, the chemical they allege Anthony used to kill her daughter. Tests conducted on the air in the trunk by the FBI laboratory and by Vass's odor-analysis

technique long after Caylee's disappearance indicated high levels of chloroform."

- Even evidence of flesh-eating insects isn't proof of a dead body

"To bolster the idea that Anthony's car trunk once contained a decomposing body, forensics entomologist Neal Haskell testified about insects found in garbage in the trunk. Insects are common in murder cases where a body is found outside."

"But without a body in the trunk, Haskell's testimony focused on insects that commonly swarm decomposing bodies. Haskell explained that the chemical composition of a decomposing body changes, and the insects attracted to the corpse will also change, allowing him to create a possible timeline for how long a body (though he could not prove it was a human body) may have been in the trunk, in this case three to five days."

- Human remains don't tell the whole story

"When investigators found Caylee's remains in December 2008, six months after the girl was last seen, it wasn't a pretty sight. Her body had decomposed in a wooded area 20 ft. (6 m) off the road and less than a mile from her grandparents' home. Although investigators found 350 pieces of evidence at the crime scene, they could collect only a handful of bones."

"Unlike most fictional cases, finding Caylee's remains yielded few definitive answers. The duct tape found on her skull contained no DNA."Duct tape in general is great physical evidence in criminal cases," Kobilinsky says. "There is no way anybody can determine if the duct tape had been put on before, during or after death. There's no way you could do it scientifically or medically.""

## 8.2 Expert Reports

**Table 3.1** A Proposed Scale for Categorizing Levels of Certainty in Digital Evidence

Certainty Level	Description/Indicators	Commensurate Qualification
C0	Evidence contradicts known facts	Erroneous/incorrect
C1	Evidence is highly questionable	Highly uncertain
C2	Only one source of evidence is not protected against tampering	Somewhat uncertain
C3	The source(s) of evidence are more difficult to tamper with but there is not enough evidence to support a firm conclusion or there are unexplained inconsistencies in the available evidence	Possible
C4	(a) Evidence is protected against tampering or (b) evidence is not protected against tampering but multiple, independent sources of evidence agree	Probable
C5	Agreement of evidence from multiple, independent sources that are protected against tampering. However, small uncertainties exist (e.g., temporal error and data loss)	Almost certain
C6	The evidence is tamperproof or has a high statistical confidence	Certain

## 8.3 Sample report structures

- Introduction
- Evidence Summary
- Examination Summary
- File System Examination
- Forensic Analysis and Findings
- Conclusions

## 8.4 Introduction

“Provide an overview of the case, the relevance of the evidential media being examined, who requested the forensic analysis, and what was requested. In addition, the introduction should provide the bona fides of those who performed the work, including a summary of relevant experience and training. A full CV can be provided as an attachment to the report.”

## **8.5 Evidence Summary**

“Describe the items of digital evidence that were analyzed, providing details that uniquely identify such as make, model, and serial number. Also consider including MD5 values, photographs, laboratory submission numbers, details of when and where the evidence was obtained, from whom the evidence was obtained and its condition (note signs of damage or tampering), and processing methods and tools.”

## **8.6 Examination Summary**

“Provide an overview of the critical findings relating to the investigation. Think of this as the executive summary, with any recommendations or conclusions in short form. This section is intended for decision makers who may not have time to read the full report and just need to know the primary results of the forensic analysis. In certain situations, it is advisable to summarize tools used to perform the examination, how important data were recovered (e.g., decryption and undeletion), and how irrelevant files were eliminated (e.g., using NSRL hash sets). Whenever feasible, use the same language in the examination summary as is used in the body of the report to avoid confusion and to help the attentive reader associate the summary with the relevant section in the detailed description.”

## **8.7 File System Examination**

“When dealing with storage media, provide an inventory of files, directories, and recovered data that are relevant to the investigation with important characteristics such as path names, date-time stamps, MD5 values, and physical sector location on disk. Note any unusual absences of data that may be an indication of data destruction, such as mass deletion, reformatting, or wiping.”

## **8.8 Forensic Analysis and Findings**

“Provide a detailed description of the forensic analysis performed and the resulting findings, along with supporting evidence. Any detailed forensic analysis of particular items that requires an extensive description can be provided in a separate subsection. The report should clearly specify the location where each referenced item was found, enabling others to replicate and verify the results in the future. In addition to describing important findings in the report, it can be more clear and compelling to show a photograph, screenshot, or printout of the evidence. Describe and interpret temporal, functional, and relational analysis and other analyses performed such as evaluation of source and digital stratigraphy.”

## **8.9 Conclusions**

“A summary of conclusions should follow logically from previous sections in the report and should reference supporting evidence. It is important not to jump to

conclusions or make statements about innocence or guilt. Conclusions must be objective and be based on fact. Let the evidence speak for itself and avoid being judgmental.”

## **9 Examples**

### **9.1 Dr Armstrong**

- Expert report of Dr Armstrong dated 1 October 2012
  - 5 pages (Report on the distance between two vessels using MARDEP radar data)
  - Introduction
  - Background data
  - Result
  - Comments on accuracy

### **9.2 Accuracy**

“Using the WGS84 model and the Vincenty formula for oblate spheroids it is a relatively simple task to calculate the distance between two locations given by their latitude and longitude on the surface of the earth at sea level . . . As the Hong Kong radar system has multiple radar antennae, the accuracy must be somewhere between 2 metres and 10 metres.”

### **9.3 Dr Armstrong**

- Supplementary expert report of Dr Armstrong dated 16 January 2013
  - 18 pages
  - Introduction (further documents have been made available to me)
  - Estimate of time to sink, Lamma IV
  - Final attitude of Lamma IV
  - Comment on the report by the Government Forensic Scientist
  - Expert’s declaration (read the report) (see section on Duty of Expert)

### **9.4 Comments on Government report**

“ . . . I have read the Statement of . . . There are no obvious disagreements between . . . and my own report, and some of the issues raised by Dr Cheng have helped to clarify some items in my Report, specifically: . . . ”

### **9.5 Dr Armstrong**

- 2nd supplementary expert report of Dr Armstrong dated 25 January 2013
  - 33 pages
  - Introduction (additional photographs, sketches, diagrams)
  - Damage stability and ballast

- Solid ballast
  - Effects of weight increase
  - Watertight subdivisions and damage stability information
- 2nd supplementary expert report of Dr Armstrong dated 25 January 2013
  - Understanding of the term “Aft peak”
  - Regulatory standards and watertight doors
  - Corrosion of aluminium
  - Separation of Sea Smooth from Lamma IV
  - Expert’s declaration
- 3rd supplementary expert report of Dr Armstrong dated 3 March 2013
  - 8 pages
  - Introduction (in response to 4th supplemental witness statement of Wong Wing Chuen)
  - Watertight bulkhead at frame
  - Aft peak bulkhead
  - Aft peak bulkhead on catamarans and multi-hull craft
  - Examples of the location of the aft peak bulkhead
  - Expert’s declaration

## **9.6 Report of Sandra G. Cawn (undated)**

- 13 pages
- Seizure and processing notes
- Seizure notes
- Summary

## **9.7 Report of Sandra G. Cawn**

- dated 19 August 2008
- 25 pages
- Search and seizure
- Seizure and acquisition notes
- Examination synopsis

## **9.8 Report of Peter Davies**

- dated 24 April 2006: 34 pages
- Declaration
- Contents
- List of Figures
- Introduction
- Approach
- Detail of Analysis
- Conclusion
- Appendix

## 9.9 A Digital Forensic Report

- 116 pages
- Declaration
- Qualifications & experience
- Submission of exhibits
- Purpose of examination
- Preliminary inspection on seizure hardware
- Image cloning
- Preliminary inspection
- The BitTorrent File Sharing Network
- The BT program: BitComet
- The capability of internet access of seized computer sets (I conclude . . .)
- Whether the seized computers had created copies of the motion picture in question? (Therefore, I conclude . . .)
- Whether the seized computers had been used to create the .torrent files in question ? (Therefore, I conclude . . .)
- Whereabouts of the torrent files at computer 178-1? (Therefore, I conclude . . .)
- Examination on email/newsgroup messages and Internet activities made by computer set 178-1. (I conclude that . . .)
- Conclusions (give overall conclusions)

## 10 Cross-examination: Principles

### 10.1 Some web info about court appearance

- [here](#)
- [HK Police web: How to be a witness in court](#)

### 10.2 Cross-examination

- Book: Eric Morris, *Techniques in Litigation* (South Africa)
- Get what you can; destroy everything else.
- To elicit facts favourable to your case.
- To elicit facts which may be used to cross-examine other witnesses.
- To show that adverse evidence from the opposing party is unacceptable.
- To show that the witness himself is not worthy of credence.
- To put your case to the witness so that it may be known and commented upon by the witness.

### 10.3 Basic categories of methods of cross-examination

- Compare the evidence with established or clearly demonstrable fact
- Test the evidence for incongruities of fact or more usefully of conduct
- Test the evidence in the light of common sense or reason

- Test the evidence in the light of what the state of mind of the witness was or would have been at the time
- Test the witness on collateral matters

#### **10.4 Errors in cross-examination**

- Repetition of examination-in-chief
- Humour
- Distort witness answer
- Empty rhetoric (every question should have a purpose and designed to achieve a purpose)
- Accepting the answer
- Why (How)
- Verbosity

#### **10.5 Basic assumptions**

- Regard the following assumptions are valid until the case is determined
  - Your opponent is no less capable than yourself, probably more so.
  - Each party in the litigation believes himself to be in the right; your opponent is therefore equipped with ammunition to destroy your case and weapons to advance his own.
  - Someone is waiting to take advantage of any mistake you may take
  - Nothing contained in your instructions can be taken for granted.

#### **10.6 Cross-examination**

- Eric Morris, *Brian Donovan QC, Cross Examination NSW Bar Practice Course*
- The cross-examiner at work
- What is your case theory?
- What do you want to achieve from this witness?
- The first purpose is to gain beneficial information to your case from the witness - constructive cross-examination
- Reduce the impact of the evidence that the witness has given against your case - destructive cross examination
- *Browne v Dunn* rule (putting case to the witness)

#### **10.7 Think carefully on how to present your case and your argument**

- They are all new to the judge and jury
- Taking the Oath
- Posture and eye contact
- Business attire
- Concise Organisation
- Conversational language

- Varied format
- Illustrations and analogies

## **10.8 Whether or not you are a bad teacher**

- Abrupt Responses
- Rambling answers
- Hesitation
- Constant self-reference
- Anger or aggression
- Arrogance
- Direct all answers to the Judge/Jury
- Do not take the questions personally
- Do not argue with counsel
- Give independent truthful opinion
- Speak clearly, slowly and use simple language
- Pause
- Listen Carefully

## **11 Cross-examiner at work**

### **11.1 What to expect**

- Challenging Credentials
- Limit the Scope of Expertise
- Stress missing credentials
- Contrast Credentials
- Affirm the other expert
- Eliciting Area of Agreement
- Criticising Conduct
- Challenging Impartiality
- Omissions
- Narrowing the basis of your opinion to assumptions of questionable validity
- Taking your position to an illogical extreme
- Identifying the basis of particular assertions and examining the assumptions underlying each element
- Showing errors in calculations
- Ridiculing your status, experience or qualifications
- Demonstrating that your opinion was formed without access to basic information or was based on inaccurate information
- Substituting Information
- Changing Assumption
- Varying the facts
- Degree of Certainty

- Dependence on other testimony

## 11.2 Some advice

- take opposing view seriously
- take time to read a document
- use complete sentence
- sometimes you are forced to answer Yes or No, then what to do?
- a question may include an implicit assumption
- a question may contain partial truth (predicate-conclusion) format
- given explanation first and not "Yes, but . . ."
- He looks for areas you do not have good recollection
- He will focus on those area and asks more and more detailed questions
- The overall purpose is to find areas you are not familiar with so that you will have to acknowledge you are not informed
- The jury or judge will see you as insufficiently prepared, less than thorough and possibly unqualified
- Obtain copies of all relevant documents in advance
- Study in great detail
- Don't merely re-read your notes 5 minutes before court
- Study your notes at least several days in advance
- Do thorough work so that it will stand up to the test in court
- Note also peripheral trivia in your reports when you can, you may be asked about it.
- Do excellent work.
- Ask all questions, use all tests, leave no stone unturned.
- Write exhaustively clear, well-reasoned, centered reports.
- Equally investigate for innocence and for guilt
- Do not be angry when the opposing counsel baits you and insults you
- No one likes or respects an angry person - Kiss your credibility good-bye if you become angry
- Be calm, breathe deeply, take time to think, coach them in qualified, scientific language (but understandable to jury)

## 12 Casey Anthony

### 12.1 Detective Sandra Osborne

*Graphical image removed*

### 12.2 Examination-in-chief

(Continuing from last lecture)

Q: What sort of information can be retrieved using CELLEBRITE?

A: I can retrieve a contact list, I can retrieve text messages, sometimes call histories, incoming calls, outgoing calls, picture files, video files, audio files, voice messages, whatever the phone offers.

Q: Is your ability to do any or all of those things hampered by the phone itself, in any way?

A: Sometimes it is, yes.

Q: How about anything to do with the service provider to the phone, does that affect your ability to extract data?

A: It can. There are several ways that extraction of data from a cell phone can be hampered. The manufacturer of the phone itself could, could not allow that information to be pulled out, if you will, by a third party tool. Sometimes the data port on the phone, where you plug the phone in to charge it, or transfer data from it could be disabled by the, by the carrier, sometimes our software is just not engineered to gather that information from that particular make and model of phone. So there are several different ways that we could be hampered and we're not able to retrieve all of the data on the phone.

Q: Does CELLEBRITE update their software, or whatever program that they provide to law enforcement agencies over time?

A: Periodically, we do get updates from CELLEBRITE, yes.

Q: When you received this phone, was it for the purpose of attempting to determine whether or not an individual by the name of Zenaida Fernandez Gonzalez could be located?

A: That's correct, it was.

Q: What information, if any, were you able to obtain from that phone in the initial use of the tool that you had mentioned?

A: The initial data extracted from that Nokia cell phone was simply the contact list and several music files.

Q: Do you have an opinion as to why that was the only information that could be retrieved from the phone?

A: I believe at that time the limitations of my CELLEBRITE hardware device, that I was us-

ing to extract the data, was not capable of fully extracting the data available on that particular phone.

Q: What is a SIM Card?

A: It is a unique identifier, that little chip card that goes inside the back of some cellular phones that allows the phone to connect to the network.

Q: What is a keyword search?

A: ENCASE has, the software that we use, ENCASE, has various functionalities that enable us to search gobs and mounds of data, which are typical of hard drives today. The keyword search is the functionality of ENCASE that allows me to basically ask ENCASE, like if I plug in the word NASCAR, and say, hey, search every bit of this hard drive for the word NASCAR, it will literally go through every bit on that hard drive looking for, if you will, that word of NASCAR. I can instruct ENCASE to only search one file, or one folder, or one section of the drive, if I like.

Q: Were any of the user accounts on the computer, password protected?

A: There was one on the HP, the OWNER user account was password protected. It required a logon user password.

Q: Were you able to determine what that password was, from your evaluation of the, of the unit itself?

A: Yes, I was.

Q: And what was that password?

A: RICO23, R-I-C-O and the numbers 2 and 3.

Q: Are you able to determine through the process of your evaluation, when that password was set?

A: Yes. (consults notes.) (continues to search through notes.) I apologize, there's a lot of information in this report. (resumes search) I believe it was set earlier in the year in 2008, if I recall correctly. (resumes search) I was just trying to verify that. I believe it was earlier in the year, maybe March of 2008, I believe.

Q: All right. Let's skip over that.

A: Ok.

Q: The internet history on the HP, how do you evaluate that?

A: That's a complicated question. In what sense? The internet history temporary files that I referred to earlier?

Q: Are they two different things?

A: The internet history is a record of the, the web site that you visited and the temporary internet files are the actual content of the page that you visited. So, there's a little bit of a difference. The way I would have evaluated the internet history, I would have copied those files out from ENCASE and examined them, and in this case I examined them with another software tool called NET ANALYSIS, which basically puts all of the temporary internet files, the history files, and the cookie files, into a spreadsheet that I can manipulate and look at, however I want to look at them, either by, I can sort the page by date, or look at them in basically in any way I want to look at them, and that's what I did in this case. I would have exported the history out into NET ANALYSIS and examined it through NET ANALYSIS.

Q: Is NET ANALYSIS another forensic tool available to you?

A: Yes.

Q: Is it one that is commonly used in the computer forensic field?

A: It is, yes.

Q: Has it been determined to be a reliable tool for the evaluation of data?

A: It is, yes, and it has been.

Q: Can you tell, either in the temporary internet files, or in the cookies, or any other internet history, which user, meaning, you said there were two users on the computer, which user is making the search?

A: Yes, the internet history database is ...

OBJECTION Baez: "Assumes facts not in evidence. I believe the witness testified to two user profiles, not users."

COURT: OVERRULED

(Counsel should repeat the question again, just in case the witness forgets)

A: The temporary internet file's database will record which user account is logged in, and active, at the time the search was conducted, so that is what it is recording, as opposed to an individual user sitting at the keyboard which, obviously, it couldn't know, it can only know what user account is active at the time the search is conducted.

Q: But, the temporary internet files record what user account is being accessed at the time? • A: That's correct.

Q: Is that also true with the internet history?

A: Yes.

Q: How about any of the cookies that appear?

A: That's correct.

Linda Drain BURDICK: "Thank you your Honour, I have no other questions for the witness."

### 12.3 Cross-examination

THE COURT: "Cross Examination?"

Q: Good morning, ma'am.

A: Sir.

Q: It's Sergeant Osborne, correct?

A: Detective.

Q: Oh, detective. Ok. I'm sorry. Detective Osborne, I just want to clear up a couple of

things with the user's profiles on the computer, ok? There are two profiles on this computer, correct?

A: User created profiles, yes.

Q: And that doesn't mean that only two people are using this computer, correct?

A: Correct.

Q: And, in fact, the, there are various searches on both profiles are there not? There's types of searches?

A: Internet searches?

Q: Yes.

A: I would assume so, yes, I found searches.

Q: And the, there could be multiple users using one profile, correct?

A: Correct.

Q: And a password only means something if (1) that person's not told anyone what the password is right?

A: Correct.

Q: And (2), the computer is turned OFF after that password is utilized, and computer activity is done?

A: Ok.

Q: All right. Is that a yes, or ...

A: Yes.

Q: So, if I'm, if I have a password protected area, which is the OWNER portion of the profile, not the CASEY profile, right?

A: Yes.

Q: If I'm using the OWNER profile and I've logged in, and the computer stays on, and I guess just goes to sleep or whatever, I don't have to re-log the password, do I?

A: It depends on the setting on the computer. If the computer hibernates or sleeps, or in some form or fashion resets itself, the password can be set to reset itself after a minute, or 30 minutes, or 5 hours, or all day. It depends on the setting on the computer.

Q: But you don't know, or can't testify as to any of that information, can you?

A: I didn't ascertain that on this computer, no sir.

Q: So, as far as you know, someone could use, type in the password, leave it on, and anyone else can come use the computer, and not have to enter in a password?

A: As far as I know, that's correct.

Q: And, you mentioned that you had found, done a keyword search for chloroform, is that correct?

A: That's correct.

Q: That, do you have the date and time that that was run?

A: I believe that was around August the 20th, I don't know that I did the exact date, but it was around August 20th, or shortly thereafter, of 2008.

Q: Do you have the date and the time that you believe these searches were run?

A: That would be incorporated in the temporary internet file history which I did not examine. My sergeant examined that, so I can't testify as to that.

Q: Ok, so you have no information on that area?

A: Not that I'm prepared to testify to, no sir.

Q: And, you don't, you don't know if the time settings (of the camera) were correct?

A: No.

Q: In fact, you don't know if this person even bothered setting the time when they purchased the camera?

A: I do not.

Q: And many people are a little, many people, many people find setting the time on things like VCRs and cameras somewhat difficult, do they not?

OBJECTION

THE COURT: "SUSTAINED."

(what if your counsel did not object?)

Q: If you know, ma'am?

OBJECTION

THE COURT: "SUSTAINED. Next question."

Q: Does every camera that you inspect, and every computer, have the exact time set

A: No.

Q: And if Ricardo Morales posted this (a photograph) on his MYSPACE, that would have been from another computer that you did not examine?

A: I have no idea.

Q: Well, if you didn't find this photograph on the computer that you examined, does that mean it was deleted, or how can you explain how it was ...

(witness started to interrupt the question and answer)

A: Just because ...

Q: Let me finish the question for her. Can you explain to us, because I may not be aware of how this photograph wouldn't show up on your inspection, if he posted this on his MYSPACE.

A: There are several reasons why this would not appear on his computer, or I did not find it on his computer, if he posted it on MYSPACE. There are multiple ways you can post on MYSPACE, one of the most common ways would be on someone else's computer, or from a phone, or from some other access other than the computer that I'm examining. Just because I did not find this particular photograph on his computer at the time I examined it, does not mean that it was never there. It just means it was not there at the time I examined it. So if it was deleted and overwritten, then I would not have found it.

“. . . (other questions and answers)”

## **12.4 Sergeant Kevin Stenger**

*Graphical image removed*

## **12.5 Examination-in-chief**

Q: Please tell the members of the jury how you are employed.

A: I am the sergeant of computer crimes for the Orange County Sheriff's Office.

Q: How long have you worked for the Orange County Sheriff's Office?

A: Just about 25 years.

Q: How long have you been in the computer crimes unit? I imagine 25 years ago, that didn't exist.

A: That's correct. The computer crimes unit was formed in 2002, and I was the first sergeant.

Q: As the sergeant in that unit, what are your regular responsibilities?

A: My unit is responsible for the investigation of computer crimes, such as hacking, the possession of child pornography, and the vast majority of our duties are the examination of people's computers, cell phones, and PDAs, or evidence.

Q: What sort of education or background do you have, that qualifies you for the position that you currently hold, with the Orange County Sheriff?

THE COURT: Sergeant, pull your microphone down a little.

(Sergeant Stenger adjusts microphone)

THE COURT: Thank you.

A: I have a graduate certificate in computer forensics and a master's degree in digital forensics from the University of Central Florida.

Q: Do you belong to any other organizations, or any organizations, dealing with the issue of computer forensics?

A: I'm a member of the International Association of Computer Investigative Specialists. I began my training with them in 1996. Since then, I have either attended training, or presented at all of their conferences since that date. I have been a certification coach, a regional manager of certification, and I am currently the division administrator of certification for that organization.

Q: When you refer to certification, being a coach, or some sort of administrative capacity to certification, what is it that you do?

A: I assist other members of our organization, new members of our organization, in training, in obtaining their credentials to become a certified forensic computer examiner.

Q: Have you, yourself, attended many trainings in the area?

A: I have. As I stated, I have attended all the conferences of IACIS [phonetic EYE-AY-SIS] since 1996. In addition, I have attended training through guidance software, both in classes and in conferences, where I have not only attended training, but I have presented training classes. I have also attended training through classes put on by a company called ACCESS DATA, and another company called SIQUEST. I have presented classes for the University of Central Florida, both as a guest lecturer and a subject matter expert.

A: I have testified in both State and Federal court as an expert in computer forensics.

Jose BAEZ: No objections.

THE COURT: Ok, ladies and gentlemen of the jury, Sergeant Stenger will be accepted as an expert witness in the area of forensic computer analysis. You may proceed.

## 12.6 John Bradley

- CEO & Chief Software Architect of SiQuest

*Graphical image removed*

## 12.7 During the trial

“I was called to the stand by the state to testify about a CacheBack report that I had never seen before and the contents of which I had no foreknowledge of,” the release said [a website of Bradley]. “This report was created by OCSD on June 3, 2011! I was only supposed to get up on the stand and say ‘I decoded the file’ and that was it. Instead, I was tediously asked to read directly from the CacheBack report.”

“During my testimony, my attention was directed to an URL at ‘ci-spot.com’ and I was asked to read aloud the visit count for that entry. As I stated in the courtroom, I said ‘According to the report, 84 times.’ Personally speaking, a single ‘chloroform.htm’ with a visit count of 84 seemed odd. But, since I did not have any other details about the investigation, and since I did not investigate the evidence, that’s all I could say.”

## 12.8 The testimony

“Prosecutor Linda Drane Burdick ended Wednesday’s testimony in the Casey Anthony murder trial with expert witness John Dennis Bradley answering that, according to search history, a chloroform website was visited 84 times on the Anthony family home computer.”

- [available here](#) (0:52 minutes)

## 12.9 After testimony before defence closing

- A press release posted to Mr Bradley’s website on 11 July 2011.
- [See here for recitations](#)
- [See news here](#)

“I was called to the stand by the state to testify about a CacheBack report that I had never seen before and the contents of which I had no foreknowledge of, . . . This report was created by OCSD on June 3, 2011! I was only supposed to get up on the stand and say ‘I decoded the file’ and that was it. Instead, I was tediously asked to read directly from the CacheBack report.”

“The finding of 84 visits was used repeatedly during the trial to suggest that

Ms. Anthony had planned to murder her 2-year-old daughter, Caylee, who was found dead in 2008.”

“According to Mr. Bradley, chief software developer of CacheBack, used by the police to verify the computer searches, the term ‘chloroform’ was searched once through Google. The Google search then led to a Web site, sci-spot.com, that was visited only once, Mr. Bradley added. The Web site offered information on the use of chloroform in the 1800s.”

“The Orange County Sheriff’s Office had used the software to validate its finding that Ms. Anthony had searched for information about chloroform 84 times, a conclusion that Mr. Bradley says turned out to be wrong. Mr. Bradley said he immediately alerted a prosecutor, Linda Drane Burdick, and Sgt. Kevin Stenger of the Sheriff’s Office in late June (during the period when the defendant was testifying) through e-mail and by telephone to tell them of his new findings. Mr. Bradley said he conducted a second analysis after discovering discrepancies that were never brought to his attention by prosecutors or the police.” (brackets added)

“Mr. Bradley’s findings were not presented to the jury and the record was never corrected, he said. Prosecutors are required to reveal all information that is exculpatory to the defense.”

“I gave the police everything they needed to present a new report,” Mr. Bradley said. “I did the work myself and copied out the entire database in a spreadsheet to make sure there was no issue of accessibility to the data.”

“Mr. Bradley, chief executive of Siquist, a Canadian company, said he even volunteered to fly to Orlando at his own expense to show them the findings.”

“A former Canadian police sergeant who specializes in computer forensic analysis, Mr. Bradley said he first became suspicious of the data after he testified on June 8. He said he had been called to testify by the prosecution about his CacheBack software. Instead, he was asked repeatedly about the Sheriff’s Office report detailing the 84 search hits on ‘chloroform’, which he had not seen.”

“I had translated the data into something meaningful for the police,” he said. “Then I turned it over to them. The No. 1 principle for them is to validate the data, and they had the tools and resources to do it. They chose not to.”

“Soon after giving testimony, Mr. Bradley learned during the defense portion of the case that the police had written a first report in August 2008 detailing Ms. An-

thony's history of Internet searches. That report used NetAnalysis, a different software."

"Despite his appearance as a witness, Mr. Bradley said he was never told about that first report either by the police, with whom he had been in contact, or the prosecution."

"Of the search results in both reports relating to chloroform, only one hit was found for sci-spot.com. That site was visited once, according to NetAnalysis, and visited 84 times, according to the CacheBack analysis."

"Concerned that the analysis using CacheBack could be wrong and that a woman's life might be at stake, Mr. Bradley went back to the drawing board and redesigned a portion of his software to get a more accurate picture."

"He found both reports were inaccurate (although NetAnalysis came up with the correct result), in part because it appears both types of software had failed to fully decode the entire file, due to its complexity. His more thorough analysis showed that the Web site sci-spot.com was visited only once — not 84 times."

## **13 Epilogue**

### **13.1 Summary**

- Expert also officer in charge of the case
- Cases on disclosure
- Expert evidence: an example in handing writing
- Expert reports - Rules of the High Court
- Contents of expert reports
- Cross-examination
- Examples in Casey Anthony