

Title: Law on Display The Digital Transformation of Legal Persuasion and Judgment

Authors: Neal Feigenson and Christina Spiesel

Date and place of publication: New York, 2011

Publisher: New York University Press

ISBN: 978 0 8147 2845 1 (paperback)

This book should be on the bookshelf of every practicing lawyer (as well as that of Gregory P. Joseph, *Modern Visual Evidence* (Law Journal Press)). Richard Susskind will be well to become aware of these important texts, so he can put his comments about the use of 'electronic presentation of evidence' into a proper, more rounded context in his excellent book.¹

Technology surrounds us, and even lawyers have taken to use IT technology faster than they took up the use of typewriters – both for their own purposes, and to present evidence in legal proceedings.

However, what most lawyers do not understand is that when using the apparently simplest form of technology in court – that of a presentation – complex issues of persuasion (amongst other things) are in play. This also includes, even more importantly, other topics, such as the use of multi-media displays and moving graphics (as set out in Dr Damian Schofield and Stephen Mason, 'Using graphical technology to present evidence' in *Electronic Evidence* (3rd edn, LexisNexis Butterworths, 2012)).

To illustrate the need for lawyers to be aware of the complex issues facing the introduction of information technology in the court, the authors consider the 1929 oil painting by René Magritte, *La Trahison des images* 'Ceci n'est pas une pipe' (1929), *The Treachery of Images* 'This is not a pipe', now in the Los Angeles County Museum of Art. Leaving aside the discussions around existentialism and irrationalism in the arts,² the

authors indicate that it is a picture (p 11) – more particularly, a painting using oil paint. The point is made that Magritte makes two statements: he has painted an image (or a representation) of a pipe used for smoking tobacco, and the words *Ceci n'est pas une pipe* underneath the image. The authors use this painting to make a number of important points (pp 11 – 13) about what we see, what we think we see, and what we think we understand: they illustrate the gap between images and words. As the text indicates, there is a significant gap between the increasing use of images in courts and the words that accompany the images – the visual image is taking over from the verbal (p 14), and lawyers should be aware of this.

The spread of digital evidence is such that it has significant consequences for human cognition, and the observations made by the authors bear citing in the interests of those that are subject to legal proceedings and the responsibilities that lawyers owe their clients (p 29):

'Lawyers are part of the broader culture. They are human beings subject to the same kinds of experiences and pressures as their audiences. Because the exercise of their profession involves them in the exercise of power, however, they need to understand the verbal and visual tools they deploy to accomplish their aims and what the effects of those tools might be. Lawyers also need to understand what their adversaries are doing. They cannot, for instance, comfortably retain a naïvely realistic approach to pictures when doing so will adversely affect their clients and the quality of justice that the legal system provides.'

The authors emphasise the same point (at p 31) made by Professor Ho,³ that the finder of fact acts as a moral agent, and central to this is that the findings by a court must be justifiable, and meet the demands of rationality and ethics.

In demonstrating the issues surrounding images from videotapes as evidence (Chapter 2), the authors demonstrate the need for lawyers to become more visually and media literate by analysing the case of

³ Hock Lai Ho, *A Philosophy of Evidence Law Justice in the Search for Truth* (Oxford University Press, 2008), 64 – 65.

¹ Richard Susskind, *Tomorrow's Lawyers* (Oxford University Press, 2013), 98.

² For which see G.S. Evans, 'This could be a pipe: Foucault, irrationalism and Ceci n'est pas une pipe', *The Cafe Irreal, irreal [re]views*, (August 2005), available at <http://cafeirreal.alicewhittenburg.com/review5.htm> ; Michal Ajvaz, 'An essay about that which isn't a pipe', *The Cafe Irreal, irreal [re]views*, (February 2013), available at <http://cafeirreal.alicewhittenburg.com/review18.htm> .

Scott v. Harris.⁴ The conclusion is that the majority opinion of the justices of the Supreme Court illustrates the 'naïve realist position' that serves to diminish 'our understanding of what those picture can communicate' (p 48). The members of the Supreme Court assumed that the videotape recording was unproblematic and unequivocal, in that it was accepted as showing the 'real' facts, leading the justices to dismiss other possible realities consistent with the visual evidence.

The handling and understanding of other forms of evidence suffer equally as badly at the hands of lawyers: demonstrative evidence tends to be confusing (p 71), and the use of graphical displays or animations in legal proceedings are far from satisfactory (Chapter 3) – especially when failing to deal with the bias of images against the spoken word. As the authors indicate (pp 102-103),

'Lawyers, judges, jurors, and the public need instead to concentrate on how juxtaposition, sequencing, interaction, animation, and other aspects of digital displays represent and explain reality, without being somehow frustrated that there is no way to get a the truth that does not depend on these features.'

The sense of the failure to understand what you see is considered in relation to fMRI scans. It is often implied that the scan is an image of the reality of the brain and how it works. It is not. As the authors rightly point out (p 125), the images at best 'report relative brain activity levels in different areas that may be generally (and, given the state of neuroscientific and psychological knowledge, more or less tentatively) associated with certain mental functions.' The fundamental point is that such images are dependant upon the output of 'an exceptionally complicated aggregation of equipment, scientific knowledge, laboratory practices, and computing power, each of which mediates the information (neuron firings) that the pictures purport to represent.' The authors might also have pointed out that when something goes wrong, such as people dying from using such equipment, the software is invariably at fault, although is the last thing to be considered as a cause of the problem.⁵

⁴ 127 S.Ct. 1769 (2007), 433 F. 3d 807, reversed.

⁵ Stephen Mason, *Electronic Evidence* (3rd edn, LexisNexis Butterworths, 2012), 175.

In summary, the authors have highlighted a significant lacunae in the education of lawyers and judges – failure to resolve the lack of understanding of the images and types of images introduced into legal proceedings could have seriously adverse effects on the legal system.

Contents:

Chapter 1 The Digital Visual Revolution

Chapter 2 The Rhetoric of the Real: Videotape as Evidence

Chapter 3 Teaching the Case

Chapter 4 Picturing Scientific Evidence

Chapter 5 Multimedia Arguments

Chapter 6 Into the Screen: Toward Virtual Judgment

Chapter 7 Ethics and Justice in the Digital Visual Age

Title: **Cloud Storage Forensics**

Authors: **Darren Quick, Ben Martini and Kim-Kwang Raymond Choo**

Date of publication: **2014**

Publisher: **Syngress, an imprint of Elsevier**

ISBN: **978 0 12 419970 5** (paperback)

This Digital forensics is complex, and digital forensics dealing with the gathering of evidence in digital format from 'cloud' providers is even more complex. As this text makes clear, digital forensic investigation in the cloud computing environment is in the early stages, partly because of the recent prevalence of cloud computing.

The authors set out to discuss an evidence-based cloud forensic framework. They undertake this task by using three cloud storage services and one private cloud storage service as case studies. The authors illustrate how their proposed framework can be used to undertake research into the remnants of data on both cloud storage servers and client devices when a user uses a variety of methods to store, upload, and obtain access to data in the cloud.

The authors demonstrate that there are a significant number of technical and legal issues that need to be addressed. From the legal point of view, it would have

been of interest to have legal comments by a suitably qualified lawyer (by that is meant a lawyer that is aware of the issues and is familiar with the global nature of the problem) – and although mutual legal assistance was mentioned throughout the text, it will be of interest to know why there was no discussion of the Belgian *Yahoo!* case over the issue of jurisdiction, the decisions of which have been translated and published in this journal. The Danish case of U 2012.2614 H decided by the Højesteret (Supreme Court) on 10 May 2012 also deals with jurisdiction and forensic evidence. If examples of case law are to be mentioned, then arguably it is important to know what decisions judges are making across the world, given the internet is global in scope.

The book is aimed at information Security professionals, digital forensic and e-discovery/e-disclosure researchers and practitioners, law enforcement agencies, and an academic audience among postgraduate and undergraduate students studying digital forensics and e-discovery.

Contents

- Introduction
- Cloud Forensic Frameworks
- Public Cloud Storage Services
- Cloud Computing and Digital Forensics
- Challenges, Including Legal
- Contributions: Framework and the Analysis
- Private Cloud Storage Services
- Conclusion and Future Work

This is a book the lawyer ought to have on their shelf – or in their reading machine – if only because it will alert them to the complex issues surrounding the topic, all of which affect the quality and nature of the evidence.

Title: *Plugged in: Guidebook to Software and the Law*

Authors: Daniel B. Garrie and Francis M. Allegra

Date of publication: 2013

Publisher: Thomson Reuters Westlaw

ISBN: 978 0 314 61223 6 (paperback)

The authors, a prominent federal judge and a computer specialist, litigator and an electronic discovery expert, have written a detailed text for lawyers and judges that aims to make highly technical concepts relating to hardware and software understandable. The publisher describes the book as follows:

Begins with a detailed description of how hardware and software interact.

Explains how software functions on the Internet and in the Cloud, as well as in mobile technology and forensics.

Discusses how the courts, focusing on important recent cases and other developments involving patents, copyright, and government contracts, are treating software.

Provides valuable insights into how lawyers and judges can educate decision makers in cases involving software, including how best to use experts and their reports, white papers, and technical advisors.

The description is very accurate. With the inclusion of evidence from software written by human beings in the vast majority of cases that now become before courts across the globe, such a text is a useful guide for a lawyer in the United States of America to have on their book shelves as a reference text.

The authors indicate, in the introduction on page xi, that their aim is to educate lawyers and judges about the basic technical concepts. They also illustrate the conundrum: how much detail to include? The book goes into the technical topics in fantastic detail and using easy-to-understand language. However, at a guess, the vast majority of lawyers and judges will not have the time or the inclination to read this text to inform themselves. There is too much, including a great deal of very interesting history – all very well and good for background knowledge, but it is arguable that the authors have provided such a detailed text that perhaps it will not quite achieve their purpose. Lawyers and judges with no or little knowledge of the subject might read a shorter text. Regardless of this observation, as it presently stands, the book (which bears repeating: it should be on the book shelves of lawyers) will help a lawyer grasp a particular issue when they might need more information.

This is not going to be a book that a lawyer or judge will take on the railway journey from San Francisco to Washington DC (or maybe it might be – the journey is deliciously long enough). However, it is a book that sets out, lucidly, what lawyers ought to know.

Now all the authors need to discuss is hearsay and the weaknesses of software – a continuation of the book to look forward to.

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- Chapter 1. Hardware
- Chapter 2. Software
- Chapter 3. The Internet
- Appendix 3A. Internet Tracking Technologies
- Appendix 3B. Voice Over Internet Protocol
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- Chapter 7. A Procedural Framework for Educating
 - Decisionmakers About Software
- Chapter 8. Patents
 - Appendix 8A. Arrivalstar Order
- Chapter 9. Copyright Protection for Software
- Chapter 10. Federal Procurement and Software
- Glossary

Title: **Expert Evidence: Law, Practice, Procedure and Advocacy**

Authors: **Dr Freckelton, QC and Hugh Selby**

Date and place of publication: **Australia, 2013**

Edition: **Thomson Reuters**

Publisher: **New York University Press**

ISBN: **9780455231624**

The particular chapter reviewed:

Chapter: **101 Digital Evidence**

Author: **Dr Bradley Schwartz**

This chapter can be obtained individually in electronic format at:

<http://www.thomsonreuters.com.au/digital-evidence-expert-evidence/productdetail/121864>

This chapter sets out the usual topics that must be covered when considering digital evidence:

- Introduction
- Foundations of Digital Evidence
- Perspectives on Digital Information
- Digital Forensic Practices
- Digital Evidence Sub-Disciplines
- Challenges to Digital Evidence
- Validation, Errors and Reliability
- Professionalism
- Future

Dr Schwartz takes the reader through the various technical issues relating to the entire range of digital forensics in a clear and concise manner. The glossary will help any lawyer to understand words and phrases they fail to comprehend. It is refreshing to note that the case of Julie Amero, from the United States, is discussed. The precise technical and legal analysis will help lawyers more fully understand the critical failure in this case, and the need for lawyers to understand the topic more fully.⁶

Of significant interest is the comment by Dr Schwartz at paragraph 100.1000 relating to the 'reliability' of computers. The text reads:

Currently the courts have taken an optimistic view of the reliability of computers and the information contained within. Such a stance is understandable given that in the early days of computing, the actions of computers were generally deterministic, based on the information given to the computer, and the operations which the computer was configured to perform. In 2012 however, computers, and the ecosystem in which they exist, are now sufficiently complex that the

⁶ For which see Stephen Mason, editor, *International Electronic Evidence* (British Institute of International and Comparative Law, 2008), pp xxxvi – lxxv.

presumption of reliability will face challenges. While information does not randomly blink into existence, it is commonplace for faults to occur due to the complex and unobserved interactions between IT components. More problematic is the commonplace occurrence of computer break-ins and infections by malicious software (which in the majority of cases acts as an agent of a human actor).

This is a significant issue that is rarely considered by lawyers and judges. In England & Wales, the Law Commission formulated the common law presumption as follows: 'In the absence of evidence to the contrary, the courts will presume that mechanical instruments were in order at the material time.' *Evidence in Criminal Proceedings: Hearsay and Related Topics* (Law Com no 245, 1997), 13.13.

Words such as 'reliable', 'in order', 'accurate', 'properly set or calibrated' or 'working properly' have been used by judicial authorities and the language used in legislation in the context of digital data. However, there is no authoritative guidance in relation to the meaning of any of these words. It is possible to refer to system reliability, interpreted broadly, as a measure of how a system matches the expectations of the user, but this view is problematic, because the expectations may be mistaken and can change arbitrarily, sometimes based on the user's experience.

This observation by Dr Schwartz is most welcome, and his chapter a useful introduction for any lawyer intent on grasping the need to understand digital evidence – for the vast majority of cases brought before the courts include such evidence, and there is no excuse for lawyers to refrain from ensuring they remain competent by maintaining their level of knowledge in our changing world.