

ELECTRONIC EVIDENCE AND ELECTRONIC SIGNATURES

Friday, 15 July 2022
3.00PM to 6.10PM (SGT)
via Zoom

ABOUT

The Centre for Technology, Robotics, Artificial Intelligence & the Law (TRAIL) at the Faculty of Law, National University of Singapore is pleased to announce the official launch of Electronic Evidence and Electronic Signatures (5th ed, University of London Press, 2021). In this latest edition of their well-established practitioner text, editors Stephen Mason and Daniel Seng bring together a team of expert international contributors, including computer scientists, academics, lawyers and archivists, to provide an exhaustive treatment of the law regarding electronic evidence. The range of issues covered by the text has been expanded to discuss contemporary issues such as artificial intelligence (AI) and machine learning and now also includes a chapter on the law of electronic signatures, contributed by Stephen Mason himself as the authoritative voice in the field.

At the launch, the distinguished contributors will present on topics related to the issues discussed in their respective chapters. Among the topics covered are the importance of verification of electronic evidence with the advent of AI, how to authenticate electronic evidence and its relationship with technical security, the application of authentication issues to blockchains and cryptoassets, the treatment of encrypted data in evidence, how to establish the competence, knowledge and qualifications of witnesses giving evidence as to the trustworthiness of electronic evidence, practical considerations relating to the collection and examination of electronic evidence and the use and abuse of presumptions relating to electronic evidence. Judges, practitioners, academics and law students with an interest in the law of electronic evidence and/or the law of electronic signatures are warmly invited to attend.

PROGRAMME

- 3.00PM** **Welcome and Introduction** - Daniel Seng, Stephen Mason
- 3.05PM** **Competence** - Lynne Townley
- 3.20PM** **AI, Verification and the Implications for Evidence** - Burkhard Schafer
- 3.40PM** **Authentication of Electronic Evidence** - Luciana Duranti
- 4.00PM** **Authentication Issues in relation to Distributed Ledger Technologies and Cryptoassets** - Allison Stanfield
- 4.20PM** **Q&A for AI, Verification and Authentication** - Moderated by David Tan
- 4.40PM** **BREAK**
- 4.50PM** **Encrypted Data** - Jessica Shurson
- 5.10PM** **Proof** - Nigel Wilson
- 5.30PM** **Presumptions** - Stephen Mason, Daniel Seng
- 5.50PM** **Q&A** - Moderated by David Tan
- 6.10PM** **END**

REGISTRATION

Register at bit.ly/3z1Y6qE or scan the QR code. Registration closes on **14 July 2022**

Enquiry: Ifraim at trail@nus.edu.sg



Public CPD Points: 2.5
Area: Civil Procedure
Training Level: Foundation

Participants who wish to obtain CPD Points are reminded that they must comply strictly with the Attendance Policy set out in the CPD Guidelines. For this activity, this includes logging in at the start of the webinar and logging out at the conclusion of the webinar in the manner required by the organiser, and not being away from the entire activity for more than 15 minutes. Participants who do not comply with the Attendance Policy will not be able to obtain CPD Points for attending the activity. Please refer to <https://www.silecpdcentre.sg> for more information.

TOPICS

COMPETENCE

Ms Lynne Townley

The importance of the issue of competency of witnesses regarding the trustworthiness (or not) of digital data cannot be overstated. During the planning of this edition, the extent of the devastation caused by what has become known as the Post Office litigation scandal, where hundreds of sub-postmasters and sub-postmistresses in the UK were wrongly convicted over a period of over 20 years due to defects in the Post Office's computer system, was just becoming known. Tragically, expert evidence identifying systemic shortcomings had been discounted by the Post Office's own investigators. What approach then should courts take when scrutinising the competency of witnesses in cases involving electronic evidence?

AI, VERIFICATION AND THE IMPLICATIONS FOR EVIDENCE

Professor Burkhard Schafer

When DNA evidence was introduced in criminal proceedings, it triggered debate over whether quantification of match probabilities by expert witnesses unduly encroached into the territory of the jury. This presentation discusses whether a similar discussion should be started in the field of digital evidence. As programs with autonomous reasoning capacities are integrated into our lives, statements about the reliability and correct working of these systems have increased in legal importance, as the Post Office litigation scandal shows. What role, if any, should formal verification and similar proofs play in this environment, proofs that guarantee some relevant property of a computer program - typically that it will always behave (or not behave) in a certain manner?

AUTHENTICATION OF ELECTRONIC EVIDENCE

Professor Luciana Duranti

This presentation will talk about evidentiary authentication by discussing the concept of authenticity through time. It will introduce the concepts of identity and integrity, accuracy and reliability, and will show how authentication in the digital world will be increasingly based on circumstantial evidence—such as the system(s) in which a record has been stored through time—rather than on the electronic material submitted as evidence itself. In fact, we cannot preserve such material, but only our ability to re-produce or re-create it, and we need to distinguish between stored and manifested evidence and assess both separately. Ultimately, authentication might have to be an inference based on security.

AUTHENTICATION ISSUES IN RELATION TO DISTRIBUTED LEDGER TECHNOLOGIES AND CRYPTOASSETS

Dr Allison Stanfield

Distributed Ledger Technology (DLT) is used in blockchains using cryptographic algorithms as a method of authentication, most notably in cryptocurrencies. Non-fungible tokens (NFTs) and other blockchain-based tokens, are designed to verify ownership of a crypto asset. Where there are assets of value and money, there is crime and so thefts of crypto assets and money laundering have prospered. Where there is ownership of intangible property, there will be infringements of such ownership. Courts are now faced with accepting evidence from law enforcement, looking to prosecute such crimes, and private litigants seeking to prove intellectual property violations. Authentication issues in relation to these relatively new technologies will be examined in this presentation.

ENCRYPTED DATA

Ms Jessica Shurson

Any discussion about electronic evidence in the digital era must reference encryption. Criminal investigations may be frustrated by encryption, especially when encryption obscures the communications of criminal offenders. This presentation will discuss the encryption workarounds available to law enforcement, primarily under the laws of the United Kingdom and United States. The primary focus of the presentation is on compelled disclosure—that is, the state's legal authority to compel a person to decrypt data that they control, usually present on a device such as a phone or computer. The presentation will also consider a state's capability to compel the assistance of third parties, such as service providers, to decrypt data.

PROOF

Dr Nigel Wilson

Proof of electronic evidence requires careful consideration and updated training. This presentation discusses the proof of electronic evidence, emphasising the challenges associated with proving a fact with electronic evidence, the need for accreditation and training of digital forensic experts, together with the validation of the technologies, systems and methodologies used and the need for the correct handling, preservation and analysis of electronic evidence in investigation processes to ensure reliability of proof. It also discusses how the probative value of the evidence can be affected and its reliability compromised when critical procedures or measures are not followed and how technological solutions can enhance the efficiency, accuracy and forensic reliability of such investigations.

PRESUMPTIONS

Mr Stephen Mason and Associate Professor Daniel Seng

While there is general concern amongst judges, lawyers and legal scholars that evidence in electronic form is not to be easily trusted, there is a presumption in England and Wales and in Singapore (s 116A, Evidence Act) that when a computer is in order at the material time, the evidence that the computer produces may be trusted. Unfortunately, this has been widely misapplied, leading to miscarriage of justice in the Post Office litigation. This session explores the scope of the presumption, explains why it has been misunderstood, and argues for a careful review and even reform to ensure that the law continues to take into account the dynamic and constantly developing changes in technology.



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SPEAKERS



Ms Lynne Townley
University of London

Ms Lynne Townley is a barrister, fee-paid judge and lecturer in Bar Vocational Studies at City Law School, University of London. Prior to taking up her current academic role, Lynne held several posts in the Crown Prosecution Service, including as an Advocacy Manager with responsibility for prosecution advocacy at Isleworth, Harrow, Wood Green, and Blackfriars Crown Courts in Greater London and as a Senior Policy Advisor to the Director of Public Prosecutions. Lynne was also appointed to the Ombudsman Panel of the Financial Ombudsman Service and chaired the Association of Women Barristers, an organisation representing women practising at the Bar in England, from 2018 - 2021. Lynne is also a published author, with an interest in honour crime and related practices.



Professor Burkhard Schafer
University of Edinburgh

Professor Burkhard Schafer holds the personal chair in computational legal theory at the School of Law of the University of Edinburgh, where he co-founded the SCRIPT Centre for IT and IP law and the Joseph Bell Centre for Forensic Statistics and Legal Reasoning. His main field of research is the interface between computer technology, science and the law, in particular questions of formalization of legal reasoning, legal compliance by design, and legal expert systems. Burkhard has published more than 120 papers in the fields of legal expert system design, the semantic web and legal responses to new technologies from a comparative perspective. Burkhard holds appointments as a member of the Centre for Advanced Studies in Cyber Security and Privacy CASP at the School of Informatics at Edinburgh, the Rechtsinformatik (Legal informatics) working group of the German Gesellschaft fuer Informatik. He is also a Senior Visiting Research Fellow at the Centre for Social Innovation Research at the University of New Brunswick.



Professor Luciana Duranti
The University of British Columbia

Professor Luciana Duranti is a Professor of archival theory, diplomatics, and digital records at the School of Information of the University of British Columbia. Luciana has published extensively on the use of archival and diplomatic concepts for understanding the products of new and emerging technologies, the authenticity of digital records, and the trustworthiness of digital systems, both in-house and in an online environment. Luciana holds appointments as Director of the UBC Centre for the International Study of Contemporary Records and Archives, Principal Investigator of the InterPARES research project and Chair of the Canadian Government Standard Board Committee for the 72.34 standard on Electronic Records as Documentary Evidence. Previously, Luciana also guided the development of the US Department of Defense (DOD) 5015.2 standard for digital recordkeeping and contributed to the development of the corresponding European standards, MoReq 1, 2, and 10.



Dr Allison Stanfield
Lantern Legal Pty Ltd

Dr Allison Stanfield has 30 years' experience as a lawyer and businesswoman. With an international clientele, Allison's expertise includes advising on cyber security compliance, privacy and commercial contracts. One of Allison's key clients is EDT, which develops evidence disclosure software for investigators, regulators and justice agencies. As EDT's Chief Legal & Compliance Officer, Allison is responsible for cyber security compliance, privacy and negotiating high value contracts. Allison also works with the team on new innovations, including the ingestion of evidence resulting from investigations into crypto asset infractions. Other clients include software start-ups and app vendors. Previously, Allison worked in mid and top tier law firms and as a court registrar, before setting up e.law, an e.hearing and e.discovery company, which ran Australia's first e.hearing and won an award for innovation. With a PhD in electronic evidence, Allison maintains an interest in all things digital and regularly speaks on the topic of electronic evidence. She is co-editor with Stephen Mason of the Digital Evidence and Electronic Signature Law Review.



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SPEAKERS



Ms Jessica Shurson
Queen Mary University of
London

Ms Jessica Shurson is a PhD researcher at Queen Mary University of London. Prior to her PhD research, Jessica served as a state prosecutor in Memphis, Tennessee, specializing in child abuse and sex crimes prosecution. She holds an LLM in Human Rights Law with Distinction from QMUL, a JD cum laude from the University of Memphis, and a BA in Political Science and Journalism from the University of Minnesota. Following the JD, she clerked for (retired) Chief Justice Janice Holder of the Tennessee Supreme Court. Jessica is also a qualified lawyer in the State of Tennessee, USA.



Dr Nigel Wilson
Australis Chambers

Dr Nigel Wilson is a lawyer, senior executive and teaching professional with nearly 30 years' experience in commercial and regulatory legal practice and litigation. He has held appointments as General Counsel and Head of Governance for government and private corporations and has been a law reform adviser to Australian Governments regarding the Digital Age. Nigel has published nationally and internationally in relation to technology, cybersecurity, evidence, competition, insurance, corporate law and governance, digital forensics and risk management and has been a keynote speaker and presenter in his areas of expertise at academic, professional and judicial conferences, in university and professional development programmes, in boardrooms and diverse workplaces. Nigel has also been on the editorial boards of two international technology law journals.



Mr Stephen Mason
University of London

Mr Stephen Mason is a Visiting Lecturer at the School of Law, University of Tartu, Estonia. He is also an Associate Research Fellow at the Institute of Advanced Legal Studies, School of Advanced Study, University of London, and was a Visiting Professor with the Faculty of Law, NUS. Mr Mason is a recognised authority on electronic signatures and electronic evidence. He is the founder, publisher and joint editor of the Digital Evidence and Electronic Signature Law Review (ISSN 1756-4611) since 2004, which is now an open source publication (ISSN 2054-8508) hosted by the Institute of Advanced Legal Studies in London at <https://journals.sas.ac.uk/deeslr>. In 2007, Stephen brought together a number of scholars across the common law world to produce *Electronic Evidence*, the first practitioner text of its kind to introduce lawyers to the complexities of electronic evidence. Since then, scholars have progressively updated *Electronic Evidence* under Stephen's leadership, editorship and guidance. *Electronic Evidence* is currently in its fifth edition.

SPEAKER &
MODERATOR

**Associate Professor
Daniel Seng**
NUS Law

Associate Professor Daniel Seng is Director of the Centre for Technology, Robotics, Artificial Intelligence & the Law. He teaches and researches on information technology law, intellectual property law and evidence. He is an NUS graduate. He received the Rupert Cross Prize from Oxford in 1994. For his doctorate at Stanford, he used machine learning, natural language processing and big data techniques to conduct empirical research on copyright takedown notices. Daniel had been a partner and head of the technology practice at Messrs Rajah & Tann, Director of Research at the Singapore Academy of Law, non-residential fellow with the Centre for Legal Informatics (CodeX) at Stanford and special consultant with the World Intellectual Property Organization.



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