

PhDs completed

Name of candidate: **Adrian McCullagh**

University at which the PhD is registered and the awarding institution: Queensland University of Technology

Department or faculty: Information Security Research Centre, Faculty of Information Technology

Title of the degree: PhD

Title of the thesis: The Incorporation of Trust Strategies in Digital Signature Regimes

Brief description:

The aim of this research is to document the differences between a traditional signature and an electronic signature including in particular one form of electronic signature known as a “digital signature”. It will be established that it is a fallacy for legislators to insist upon functional equivalence between electronic/digital signatures and traditional signatures from a legal perspective. Many jurisdictions have not only advocated functional equivalence but in so doing have also approached the legal recognition of signing digital documents from a technology neutral language perspective in their respective electronic signature legislative regimes, whilst at the same time attempting to create some magical certainty for commerce to rely on. In short, there is, as this thesis will show, a clear contradiction concerning technology neutral language in electronic signature regimes and the certainty that commerce requires. Technology neutral language regimes provide no guidance to either the judiciary or commerce in their dealings with enforceable contracts that are evidenced electronically and where the “signature” is in dispute. There are, as will be established in this thesis, too many fundamental differences for functional equivalence to be achieved. This thesis does not attempt to define an electronic signature, as any definition would most likely overtime become outdated as technology advances such concept, but this thesis does describe a

set of elements which if technologically achievable would closely correspond to the traditional concept of a signature as commercially and legally understood.

Supervisors: Professor William Caelli and Professor Peter Little

External marker: Professor Alan Tyree and Professor Bob Blackley Snr, University of Texas A&M

Date of registration of the PhD:

Date of submission of the PhD thesis: July 2001

Date PhD was awarded: 3 February 2001

Name of candidate: **Aashish Srivastava**

URL:

<http://www.buseco.monash.edu.au/blt/research/profiles/profile.html?sid=5865&pid=3809>

University at which the PhD is registered and the awarding institution: Monash University

Department or faculty: Business Law and Taxation

Title of the degree: PhD

Title of the thesis: Is the Pen Mightier than the Electronic Signature? The Australian Businesses' Perspective

Brief description:

Using a qualitative approach, the thesis conducts a comprehensive empirical investigation to identify factors that have contributed to the low acceptance of electronic signatures, in particular, the digital signature in the Australian business community.

Supervisors: Professor Paul von Nessen and Mr Paul Sugden

Date of registration of the PhD: November 2004

Date of submission of the PhD thesis: November 2008

Date PhD was awarded: April 2009

Thesis published: Aashish Srivastava, *Electronic Signatures for B2B Contracts Evidence from Australia* (Springer India, 2013)

PhD RESEARCH

Name of candidate: **George Dimitrov**

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URL: <http://library.netlaw.bg/en/?s=4&i=20>

University at which the PhD is registered and the awarding institution: Katholieke Universiteit Leuven

Department or faculty: Interdisciplinair Centrum voor Recht und Informatica

Title of the degree: PhD in Laws

Title of the thesis: Liability of Certification Service Providers

Brief description:

In the era of rapidly developing information technologies, electronic communication between people has become a preferred method of communication. The e-signatures have become a widely used tool for ensuring secure communications. The providers of certification services related to e-signatures play a key role in this process. They create trust by issuing electronic certificates to support the e-signatures. Due to this fact the Directive 1999/93/EC introduces minimum liability regime that all member states must introduce in their national laws. The work analyzes carefully the Directive rules and criticizes the need for such an approach in an infant market, since it leads to erection of market barriers and suffocation of the market. To elaborate proofs of evidence, the book analyzes the affects of the transposition of the Directive on e-signatures in one case study country-Bulgaria. The findings of this work may be of use to all legal practitioners who encounter problems related to the liability of certification service providers. It gives national legislators guidelines for the re-interpretation of the liability concept of the Directive and gives ideas for its future improvement.

Supervisor: Professor Dr. Jos Dumortier

Date of registration of the PhD: 18 January 2008

Date of defence: 18 January 2008

Date of submission of the PhD thesis: 1 June 2012

Date PhD was awarded: 18 January 2008

Thesis published: George Dimitrov, *Liability of Certification Services Providers* (VDM Verlag Saarbrücken, Germany, 2008)

Name of candidate: **Giuseppe Vaciago**

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University: Università degli Studi di Milano-Bicocca (University of Milan – Bicocca)

Department or faculty: Facoltà di Giurisprudenza (Faculty of Law)

Title of the thesis:

Digital forensics, procedura penale Italiana e diritti fondamentali dell'individuo nell'era delle nuove tecnologie

Digital Forensics, Italian Criminal Procedure and Due Process Rights in the Cyber Age

Brief description:

Il mondo digitale interagisce con la giustizia in molteplici segmenti: sempre più numerosi sono i casi in cui esso è sede di reati (dal furto di identità, fino ad arrivare al cyberterrorismo) e non lontani sono i tempi in cui esso sostituirà il tradizionale modo di intendere il processo (questo sta già accadendo nel processo civile e presto accadrà anche nel processo penale). Come Sherlock Holmes nel XIX secolo si serviva costantemente dei suoi apparecchi per l'analisi chimica, oggi nel XXI secolo, egli non mancherebbe di effettuare un'accurata analisi di computer, di telefoni cellulari e di ogni tipo di apparecchiatura digitale.

La presente opera si prefigge due compiti: il primo è quello di offrire al lettore un'analisi della prova digitale e dell'articolato sistema di regole e procedure per la sua raccolta, interpretazione e conservazione. La casistica giurisprudenziale, non solo italiana, ha dimostrato come l'errata acquisizione o valutazione della prova digitale possa falsare l'esito di un procedimento e come il digital divide sofferto dalla maggior parte degli operatori del diritto (magistrati, avvocati e

forze di polizia) possa squilibrare le risultanze processuali a favore della parte digitalmente più forte.

This paper focuses specifically on digital forensics and the rules and procedures regulating the seizure, chain of custody and probative value of digital evidence, with particular emphasis of three distinct aspects. Firstly, the extremely complex nature of digital evidence; Secondly, the dire need for an adequate level of computer literacy amongst judges, lawyers and prosecutors. The last, but no less crucial aspect involves the potentially prejudicial effects of invasive digital forensic techniques (such as the remote monitoring of data stored on hard drives) on the suspects fundamental freedoms (the right to privacy and the inviolability of personal correspondence) and due process rights (including the privilege against self-incrimination and the right to an adversarial hearing on the probative value of the electronic data proffered as evidence).

Supervisor: Professor Andrea Rosseti

External marker: Giovanni Sartor

Date of registration for degree: 21 March 2011

Date of submission: 24 January 2011

Publication of thesis: January 2012

URL:

<https://boa.unimib.it/handle/10281/20472?mode=full>

Candidates for PhDs

Name of candidate: **Maria Astrup Hjort**

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URL:

<http://www.jus.uio.no/ior/personer/vit/mariash/index.html>

University: Universitet i Oslo (University of Oslo)

Department or faculty: Det juridiske fakultet (The Faculty of Law, Department of Public and International Law)

Title of the degree: PhD

Title of the thesis (it will be helpful if you provide this information in both your native language and in English):

Tilgang til bevis i sivile saker – med særlig vekt på digitale bevis

Access to evidence in civil proceedings – with particular emphasis on digital evidence

Brief description (it will be helpful if you provide this information in both your native language and in English):

Avhandlingen tar utgangspunkt i et scenarium der en part vet eller tror at det eksisterer materiale som kan brukes som bevis i en kommende eller verserende rettssak, og at parten ikke selv har hånd om dette beviset. Hovedproblemstillingen er i hvilke tilfeller og på hvilke betingelser parten kan få tilgang til beviset. Problemstillingen fordrer en rettsdogmatisk analyse av de tre fremgangsmåtene for tilgang til realbevis; å få bevis stilt til rådighet, bevisopptak og bevissikring.

En type bevis som det ofte er utfordrende å få tilgang til, er digitalt lagrede bevis. Mens fysiske gjenstander stort sett er klart definert og avgrenset, er digitalt lagret informasjon dynamiske størrelser i stadig endring som gjerne er lagret sammen med en mengde annen informasjon uten relevans for saken. I tillegg er digitalt lagret informasjon lett å kopiere, manipulere og slette. Disse trekkene utfordrer spørsmålet om tilgang, både praktisk og rettslig. Digitale bevis er derfor godt egnet til å belyse spørsmål knyttet til bevis tilgangsinstituttet. Det er imidlertid vanskelig å behandle alle bevis tilgangsspørsmål med utgangspunkt i digitale bevis, og noen spørsmål behandles derfor for realbevis generelt. Hovedvekten vil likevel - såfremt det er mulig – være på digitale bevis.

Avhandlingen har et komparativt tilsnitt, der svensk, dansk og engelsk rett er med på å belyse norsk rett.

The thesis is based on a scenario where a party knows or believes that there exists material that can be used as evidence in an upcoming or pending case and where the

party is not in possession of this evidence. The main question is in what circumstances and on what conditions the party can get access to the evidence. The problem requires a dogmatic analysis of the three procedures for access to real evidence according to Norwegian law; the obligation to make evidence available, taking of evidence and securing of evidence.

One type of evidence that it is often challenging to get access to is digitally stored evidence. While physical objects are generally clearly defined and delineated, digitally stored information is dynamic and often stored together with a plethora of other information, irrelevant to the case. In addition, digitally stored information is easy to copy, manipulate, and delete. These features are challenging the issue of access, both practically and legally. Digital evidence is therefore well suited to shed light on issues related to the provisions on access to evidence. It is however difficult to treat all questions related to access to evidence based on digital evidence, and some questions are therefore discussed based on real evidence in general. The emphasis will anyway – if possible – be on digital evidence.

The thesis has a comparative perspective, where Swedish, Danish and English law shed light on Norwegian law.

Supervisors: Professor Inge Lorange Backer and Professor Magne Strandberg

Date of registration for degree: 1 February 2007

Anticipated date of submission: 19 January 2015

Name of candidate: **Jonas Ekfeldt**

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University at which the PhD is registered and the awarding institution: Stockholms universitet (Stockholm University)

Department or faculty: Juridiska fakulteten (Faculty of Law)

Title of the degree: LL.D., Dr. iur., Doctor of Laws

Title of the thesis:

Värdering av informationstekniskt bevismaterial

Legal evaluation of digital evidence

Brief description:

Avhandlingsprojektet har som huvudsyfte att identifiera problemområden som framträder vid viss nationellt rättsligt påbjuden hantering och värdering av informationstekniskt bevismaterial. Informationstekniskt bevismaterial ges i avhandlingen en vidsträckt generisk definition, rättsligt och tekniskt anknuten, innefattande vad som i allmänna ordalag ofta beskrivs som 'digitala bevis', 'elektroniska bevis' och 'it-forensiska bevis'. I avhandlingen görs även bevisrättsliga analyser av aktuellt förekommande civila och polisiära s.k. 'it-forensiska analysprotokoll'.

The dissertation project has as its primary aim to identify problem areas that appear during certain legally imposed handling and evaluation of digital evidence, from a national perspective. Digital evidence is given an extensive generic definition, legally and technically based, encompassing what is generally also described as 'electronic evidence' and 'IT (forensic) evidence'. The thesis also includes evidence law analyses of currently occurring 'IT forensic analysis reports' from civilian and police sources.

Supervisors:

Professor Cecilia Magnusson Sjöberg

Professor Em. Christian Diesen

External marker: N/A

Date of registration of the PhD: 2011

Anticipated date of submission: Autumn 2015/Spring 2016

Name of candidate: **Allison Stanfield**

Contact information: a.stanfield@elaw.com.au

URL: <http://www.elaw.com.au>

University: Queensland University of Technology

Department or faculty: Faculty of Law

Title of the degree: PhD

PhD RESEARCH

Title of the thesis: The Authentication of Digital Evidence

Brief description:

An analysis of whether the existing rules of evidence sufficiently protects the integrity of electronic evidence in contemporary times.

Supervisors: Professor Bill Duncan and Professor Sharon Christensen

External marker: TBC

Date of registration for degree: 2011

Anticipated date of submission: 2015

Request to be included

If you are currently doing a PhD in some form of electronic evidence and electronic signatures or are involved in a research project in this field, and would like to have your details added to our Current Research section, please download and complete a [submission form](#) (docx) and send by email to: stephenmason@stephenmason.eu