Towards a global law of electronic evidence? An exploratory essay

by Stephen Mason

The development and use of software to control computers and computer-like devices affects legal proceedings, especially because data is now being widely created, recorded and stored in digital format. The introduction and use of paper was, arguably, a slow enough process for judges, lawyers and politicians to react to and understand the ramifications that surrounded the recording of information on a physical medium – susceptible, as it is, to being forged, altered, manipulated or destroyed (just as data in digital format is also subject to the same problems, as noted by Burkhard Schafer and Stephen Mason, "The characteristics of electronic evidence in digital format", ch 2, in *Electronic Evidence*). The introduction of digital data has, however, caused some problems, particularly with the attitude of judges and lawyers to the new form of technology; in respect of judges in the United States of America, see Gary C Kessler, "Judges' Awareness, Understanding, and Application of Digital Evidence", 2011, *Journal of Digital Forensics, Security and Law,* 6(1), pp 55-72, including reference to Dr Kessler's doctoral thesis and the further references cited therein. The legal profession tends to look backward, especially in common law jurisdictions. As a result, there is often a failure to look forward, or even in the "now":

> *… some centuries later, a similar change* has already taken place *with respect to digital data, and, it seems, that a large majority of lawyers, legal academics and judges have failed to realize they are now living in a world dominated by digital evidence, and that* digital evidence is now the dominant form of evidence. *Although quantifiable figures are not available, it can be asserted with some confidence that the majority of lawyers, legal academics and judges do not know they do not know; a smaller number know they do not know, and an even smaller elite know about digital evidence, but they are realistic enough to know they need to know more. (*Editorial*, Digital Evidence and Electronic Signature Law Review,* 6 (2007), 6*,* emphasis in the original)

THE PURPOSE OF THIS ESSAY

The purpose of this essay is to explore whether it is possible to move towards a global or regional law of electronic evidence. Professor Twining observed, in *Globalisation and legal theory* (Butterworths, 2000, p 247), that the literature on global law is significant and highly repetitious. In the light of this observation, the reader is asked to accept that the author is treading on areas of knowledge with which he is not familiar. For this reason, the discussion in this essay is at a very high level of generality, and it does not offer anything other than a highly tentative foray into the complexities of comparative law and legal theory. This essay, as flawed as it is, is merely an exploration. The purpose is to open the debate.

Arguably, the advent of instant communications has resulted in the ability of the judicial systems of the world to interact globally and across jurisdictions in the interests of justice generally. (This was an observation made by Professor Wigmore in slightly different circumstances in 1920, in which he commented in "Problems of World-Legislation and America's Share Therein" in *Problems of Law Its Past, Present, and Future*, pp 105-36, 108):

> *But in the last generation or two, with the enormous expansion of rapid communication by steam and electricity, by mail, cable, and wireless, international discourse has increased by leaps and bounds. The diversity of national laws has thus become more obvious and more inconvenient.*

Professor Wigmore's observation highlighted the importance of national legal systems at a time when, conceivably, the opportunities to develop global responses to legal issues expanded, but not sufficiently. The diversity of national laws remains, but international and regional fora have begun to develop in such a way as to affect substantive law. The Convention on Cybercrime (Budapest, 23.XI.2001) is one example, and Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I)(OJ L 177, 4.7.2008, pp 6-16), which establishes uniform rules concerning the law applicable to contractual obligations in the European Union, is another example. (The Regulation replaced the Convention on the law applicable to contractual obligations (Rome Convention), 80/934/EEC: Convention on the law applicable to contractual obligations opened for

signature in Rome on 19 June 1980. Consolidated version CF 498Y0126(03), OJ L 266, 9.10.1980, pp 1-19).

Independently of the new means of communication, official judicial networks have been established, although undoubtedly encouraged by the ease of communications. Examples include Eurojust, the Judicial Cooperation Unit of the European Union; the Judicial Regional Platform of the Indian Ocean Commission countries, and Inter-American Treaties for Legal and Judicial Cooperation under the aegis of the Organization of America States – some of the literature is noted in the bibliography. Another illustration of an initiative by a university is the Centre for Judicial Cooperation of the Law Department of the European University Institute. The main purpose of this unit is to encourage collaboration and the exchange of knowledge between the judicial and academic communities on a variety of topics, with a view to providing a framework for judicial cooperation and dialogue.

All legal systems face the same problems when dealing with electronic evidence. For this reason, it appears on a superficial level that a global law of electronic evidence will benefit judges and lawyers; those that are the subject of criminal proceedings, and the parties involved with civil and administrative proceedings. The development of an international agreement regarding new forms of technology is not new, given that on 17 May 1865 the first International Telegraph Convention was signed by the 20 participating countries to facilitate and regulate the interconnection and interoperability of national telegraph networks. Professor Wigmore, in *Problems of World-Legislation and America's Share Therein*, cited more examples at pp 112-15. In the context of this essay, the issue is whether a similar move towards a global – or regional – law of electronic evidence is desirable, possible, or inevitable.

The aim is to canvas the possible methods that could be used to achieve a global or regional law of electronic evidence, such as: (i) a private initiative; (ii) a non-binding initiative by way of regional fora, or (iii) an initiative by way of an international agency. Where a private initiative is considered, other factors are relevant, such as the response by the legal profession to external influences (official and unofficial), as noted by William Twining in *General Jurisprudence Understanding Law from a Global Perspective* at 306-12, where he illustrates the issues surrounding the Codes prepared by the American Law Institute; the factors that influence the use of comparative reasoning, and the judicial use of comparative reasoning. To ascertain the response of judges to external influences in broad terms, an outline of the main findings of a study by Professor Bobek in *Comparative Reasoning in Supreme Courts* is considered. It does not follow that we need a global or regional law on electronic evidence, even if judges cite foreign judgments or legal literature more frequently, but it is suggested that the findings by Professor Bobek serve to illustrate the approach taken by judges in some jurisdictions to external influences that they are not obliged to consider. In this respect, the judicial response is arguably relevant when considering whether judges will consider private initiatives in particular.

Finally, after considering what the future might hold, a brief assessment is made of the position we find ourselves in at the time of writing.

METHODS TO ACHIEVE A GLOBAL LAW OF ELECTRONIC EVIDENCE

A private initiative

If judges are receptive to admitting ideas from outside the jurisdiction to influence their judgments, it is conceivable that a global or regional law of electronic evidence in the form of a voluntary Convention might be prepared by a group of self-selected proponents for the benefit of all. The example of a similar initiative by Professor Ole Lando is instructive. Professor Lando founded the Commission on European Contract Law with the objective of reaching a set of common principles of contract law for the countries of the European Union. The United Nations Convention on Contracts for the International Sale of Goods (CISG, Vienna 1980) was also under way at the same time, and changes were subsequently achieved, such as Directive 1999/44/EC of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees (OJ L 171, 07/07/1999, pp 12-16), and the International Institute for the Unification of Private Law (UNIDROIT) Principles of International Commercial Contracts (1st edn,1994; 2nd enlarged edn, 2004; 3rd edn, 2010). An international or transnational legal regime for cross-border commercial transactions was subsequently agreed, and the CISG has been adopted by the major trading nations, as noted by Michael Joachim Bonell. Thus a private initiate achieved some success in conjunction with other work carried out in regional and international fora.

Should a private proposal to draft a Convention on electronic evidence achieve its purpose – there is no reason why such a Convention should not be drafted by means of a private initiative – the next issue is whether judges would consider consulting such a Convention when reaching decisions. A number of issues would arise, including how the legal culture of individual jurisdictions in general might respond to such an idea. In the example noted above, success was achieved. However, it is possible that attitudes towards evidence and the authentication of evidence face greater hurdles, because of the nature of the underlying legal philosophy, procedural requirements and attitude towards authentication. Putting this and other issues to one side for the purposes of this essay, one approach would be to consider whether judges would refer to

such a Convention. One approach to assessing the strength of this possibility is to examine the willingness of judges to cite foreign judgments or legal literature in their judgments, and if so, whether the foreign citation has any influence on domestic decision making. This matter is discussed below.

A non-binding initiative by way of regional fora

Alternatively, a regional forum might consider developing a suitable response to electronic evidence. Such initiatives have been produced by the 53 countries of the Commonwealth: *Commonwealth Draft Model Law on Electronic Evidence* (LMM(02)12), which draws on the Singapore Evidence Act, section 35(1); the Canada Uniform Electronic Evidence Act and UNCITRAL Model Law on E-Commerce; and the Group of African, Caribbean and Pacific States: *Electronic Evidence: Model Policy Guidelines & Legislative Texts* (ITU, 2013). The latter acknowledged their debt to the Commonwealth Model Law. These initiatives do not appear to have been implemented into national legislation to date. Neither text appears to have been cited by judges, although the author has only conducted a cursory search in various Commonwealth legal databases for this purpose.

Two European studies might act to encourage greater judicial cooperation. One is a comparative study for the Council of Europe by the author, with some assistance of Uwe Rasmussen. This study is entitled *A comparative study and analysis on the effect of electronic evidence on the rules of evidence and modes of proof in civil and administrative proceedings.* The study provides an analysis of existing national legal provisions that have been adopted or adapted on the effect of electronic evidence on the rules of evidence and modes of proof, with a focus on proceedings relating to civil law, administrative law and commercial law among the member states of the Council of Europe. The report, which included a proposal to consider the preparation of a Convention on Electronic Evidence, was submitted to the 90th meeting of the European Committee on Legal Co-operation in October 2015. Another study is a project sponsored by the European Union, *entitled European Informatics Data Exchange Framework for Courts and Evidence* (e-Evidence). The project is considering a common legal response to the exchange of digital data, and to recommend standard procedures in the use, collection and exchange of electronic evidence across EU member States. Guidelines, recommendations and technical standards will be proposed, including an electronic evidence exchange in accordance with common standards and rules.

An initiative by way of an international agency

The United Nations, by way of the Commission on Crime Prevention and Criminal Justice, established an open-ended intergovernmental expert group to conduct a comprehensive study of the problem of cybercrime and responses to it by Member States, the international community and the private sector (http://www.unodc.org/unodc/en/organized-crime/news/2013/cybercrime-study-expert-group-feb.html). One aspect of this project included the legal responses to cybercrime (Draft topics for consideration in a comprehensive study on the impact of and response to cybercrime, Expert group on cybercrime, Vienna, 17 -21 January 2011 (20 December 2010, UNODC /CCPCJ/EG.4/2011/2) – included "Legal responses to cybercrime", item (e) electronic evidence (topic 8), paras 36-39). A report was duly produced in 2011 (Report on the meeting of the open-ended intergovernmental expert group to conduct a comprehensive study of the problem of cybercrime held in Vienna from 17 to 21 January 2011 (31 March 2011, UNODC /CCPCJ/EG.4/2011/3)), which led to the expert group to conduct a comprehensive study of the problem of cybercrime. There was no discussion regarding the preparation of a Convention on electronic evidence, although the study was very wide-ranging, and prepared as the result of a questionnaire, which might not have considered this particular point. Perhaps the development of a Convention was not an issue that concerned those responding. This is illustrated in the following observation from *Comprehensive Study on Cybercrime Draft – February 2013*, p 167 (footnotes omitted), because there was no discussion about appropriate provisions, and the latter point that is noted omits the criticisms relating to the concept of "working properly" which is a significant problem, because there is no authoritative guidance in relation to the meaning of the words "reliable", "in order", "accurate", "properly set or calibrated" or "working properly" as variously used by judicial authorities and the language used in legislation in the context of digital data (for which see *Electronic Evidence*, ch 5):

> *Very few countries reported the existence of special evidentiary laws governing electronic evidence. For those that did, laws concerned areas such as legal assumptions concerning ownership or authorship of electronic data and documents, as well as circumstances in which electronic evidence may be considered authentic. Other countries provided information on the way in which "traditional" rules of evidence may be interpreted in the context of electronic evidence. One country from Oceania, for example, clarified how the "hearsay" rule applied to electronic evidence in its jurisdiction:* "For electronic evidence specifically, the hearsay rule would not apply if the information contained in the electronic evidence relates to a communication which was transmitted between computers and has been admitted in order to identify the sender, receiver, date and time of the transmission." *Another country also noted that a "general presumption" exists* "where evidence that has been produced by a machine or other device is tendered, if the device is one that, if properly used, ordinarily produces that outcome, it is taken that the device was working properly when it produced the evidence."

It does not appear that the UN will consider a Convention on electronic evidence at present, although in 2015, some observers noted in the *Report on the twenty-fourth session* of the need to provide

> *technical assistance and capacity-building activities aimed at strengthening the abilities of national law enforcement and judiciary authorities to effectively investigate and prosecute cybercrime, including through the proper handling of electronic evidence.*

The Council of Europe have given some consideration to electronic evidence via two early recommendations, namely *Recommendation No R (81) 20 of the Committee of Ministers to Member States on the harmonisation of laws relating to the requirement of written proof and to the admissibility of reproduction of documents and recordings of computers* (Adopted by the Committee of Ministers on 11 December 1981 at the 341st meeting of the Ministers' Deputies); and *Recommendation No R (95) 13 of the Committee of Ministers to Member States concerning problems of criminal procedural law connected with information technology* (Adopted by the Committee of Ministers on 11 September 1995 at the 543rd meeting of the Ministers' Deputies), paragraph IV (13) of which reads:

> *The common need to collect, preserve and present electronic evidence in ways that best ensure and reflect their integrity and irrefutable authenticity, both for the purposes of domestic prosecution and international co-operation, should be recognised. Therefore, procedures and technical methods for handling electronic evidence should be further developed, and particularly in such a way as to ensure their compatibility between states. Criminal procedure law provisions on evidence relating to documents should similarly apply to data stored in a computer system.*

The European Union and the Council of Europe established a "Joint Project on Regional Cooperation against Cybercrime", and by 2013 published *Electronic Evidence Guide A basic guide for police officers, prosecutors and judges* (version 1.0, Data Protection and Cybercrime Division, Council of Europe, Strasbourg, France, 18 March 2013). However, this text is not helpful, because it is marked "Restricted/not for publication", and the password to open the document is only available if the user provides a sufficient reason to obtain access to the guide.

LEGAL CULTURE AND THE RESPONSE TO EXTERNAL INFLUENCES

There are two compelling reasons for considering foreign law: to obtain some insight, principle or doctrine into a legal issue that a bench of (usually) senior judges have considered previously, and to ascertain whether there is a consensus in world legal opinion in relation to a particular matter. Professor Jeremy Waldron defends this second point in his book *"Partly laws common to all mankind": foreign law in American courts* at page 76 and chapters 4 and 5, and in so doing, he indicates that the purpose of considering foreign law is to learn from others, and to accept that there is a virtue in consistency.

Professor Michal Bobek has considered whether, and if so, to what extent and why judges respond to outside influences in his book *Comparative Reasoning in Supreme Courts.* His work is a useful indication as to whether judges might cite such a Convention. His research covered the Supreme Courts of a number of European jurisdictions: England and Wales; France; Germany; Czech Republic and Slovakia. Of interest to this discussion is whether judges cited foreign law or judgments in interpreting domestic law for the purpose of solving a domestic dispute. The emphasis was on the citing of materials that the court was not required to refer to or cite – called "non-mandatory" references. A summary of Professor Bobek's findings that are relevant to this essay are set out below (the citations are to Bobeck unless otherwise stated).

FACTORS INFLUENCING THE USE OF COMPARATIVE REASONING

Professor Bobek indicated that the following factors influenced the use of comparative reasoning by judges: the time available to undertake research; the knowledge of the language of the foreign materials; ease of access to relevant materials, and whether the foreign materials were understood (p 36). There are a number of problems that affect the position (p 38; Mak (2012), pp 21-28):

1. Procedure, in that judges might be bound by short and strict deadlines, and have a significant number of cases that they are required to deal with each year (pp 50-54).

2. How active lawyers for the parties and the judge engage in researching comparative materials; the competence and knowledge of the lawyers (Waldron pp 178-80); whether there is any third party intervention, and the costs of litigation (pp 50-54).

3. The legal and judicial culture, including judicial style, which may preclude direct citation of any source other than national legislation (pp 39; 107-11 for France as an example) – indeed, some judges will devise elaborate mechanisms so as not to deal with anything of a foreign nature (p 240), although it might be observed that judges in England and Wales have only recently taken to cite living authors (Duxbury, Mohammed, Botterell, Braun, Lord Neuberger of Abbotsbury and Mr Justice Beatson).

4. Institutional factors, such as the level of court in the judicial hierarchy (lower courts concentrate on adjudicating on a dispute and applying the law, whereas

a superior court will deal with more complex issues that affect the legislation and law generally), also including such aspects as whether a court has analytical back-up and how judges use other points of reference, such as networks and databases (pp 44-50).

5. Comparative research might only be made available for internal use and not for public acknowledgment (p 38); obtaining the material might also be difficult (Waldron, pp 89-93), and the selection of what foreign law or judgment to cite is highly relevant Waldron , ch 7).

6. Political influence (pp 40-41; Ram).

7. The size and age of the jurisdiction (pp 41-44).

The judicial use of comparative reasoning

It is possible to define legal developments into roughly three periods: the medieval period, where there was considerable comparative reasoning by judges (pp 9-11); followed by the seventeenth and eighteenth centuries, where the formation of the nation state coincided with the codification of the law, leading to a semi-open system in which comparative reasoning continued, but not to the same extent as previously (pp 10-11); and the modern period, where legal systems are, in relative terms, sealed from outside influence (p 11; Damaška, 141, fn 30).

It is correct that newly established legal systems accept some comparative reasoning from jurisdictions for particular historical reasons. For instance, the Czech Constitutional Court (*Ústavní soud*) will cite the German Federal Constitutional Court (*Bunderverfassungsgericht*), the Federal Supreme Court (*Bundesgerichtshof*) and the Federal Administrative Court (*Bundesverwaltungsgericht*), but not the Austrian Verfassungsgerichtshof (pp 159-60). The judicial method in some jurisdictions is a preference to cite scholarly works, which demonstrates that an exchange is taking place, but via different channels. Germany is an example (p 135; pp 139-40; p 279). The citing of case law from common law jurisdictions in English textbooks is relatively frequent, and John Pitt Taylor deliberately included extensive materials from the United States of America in his first edition, *A Treatise on the Law of Evidence* (A Maxwell & Son, 1848). The librarian of Middle Temple responded to the paucity of law reports from the United States by making arrangements to buy those reports that were "held in estimation by the Court of the United States" (p ix). The Honourable Society of the Middle Temple now has one of the best collections of American law reports in the United Kingdom.

Judges also tend to obtain inspiration from a handful of jurisdictions that are historically relatively close (pp 193-95). The quality of citation differs. For instance, a citation can appear as a casual reference without a citation in a long list of other references, and in some courts, the purpose for citing other jurisdictions has two main functions: to appeal to an external authority, and as a means of ex post justification for a decision (pp 196, 237, 242, and 283). Some jurisdictions will not cite foreign authority for political reasons. For instance, Hungarian law is not cited in Slovakia (pp 18 – 183, and foreign citations are not necessarily welcome in the United States of America (ch 14; Andenas and Fairgrieve, pp xxx-xxxiv), while England and Wales is open to the citing of other legal materials, but citations tend to be restricted, in the main, to certain selected Commonwealth countries and the United States of America (pp 14-15; Waldron for New Zealand, pp 17-19). Also, the quality of legal analysis might be poor (Waldron, pp 93-100).

Contrary to assertions that there is a universal trend to the increasing use of citing materials from other jurisdictions, the facts indicate the contrary (pp 14-15; 192). Indeed, Professor Bobek observes, at 239, that: "The judges themselves appear to have no traceable desire to demonstrate their affiliation with a broader, global community, or pursue any international agenda." There is neither a global move to include foreign citations in domestic judgments, nor a move towards global comparisons (p 283). However, Professor Bobek observes that judges have a horror of a legal vacuum, but they are not revolutionaries. They prefer to reduce complexity, not increase it (p 286). To this extent, the jurisprudence of the International Criminal Court regarding the admissibility of evidence may serve to act as a stimulus towards achieving some form of consistency regarding the law of evidence (Murphy; Malsch and Freckelton).

The foregoing discussion illustrates the observations made by Professor Waldron, in that when lawyers in common law countries cite foreign case law and legislation, there is no jurisprudence that explains what they are doing, such as the meaning of "persuasive authority", which is not clear. It sometimes means treating a precedent as having force because the reasoning is persuasive, and on other occasions, it means a precedent has less than binding force, but has some force that is independent of its persuasiveness. Professor Waldron observes, at 21, that "there is seldom a good argument as to why foreign precedents should be persuasive in this second sense." There is also no analysis as to why a foreign precedent carries the weight given to it.

In summary, it appears that a private attempt at dealing with electronic evidence for the benefit of all might be successful in developing a robust document that can be used as a basis for further development, but is unlikely to influence many judicial authorities. Notwithstanding this conclusion, a private initiative can have long term benefit on the law generally.

THE FUTURE

For the development of a voluntary Convention, a greater understanding of the taxonomy of electronic evidence will be helpful, including attention given to some of the issues covered by the regional model laws, in particular the provisions regarding the authenticity of digital data, and the presumptions relating to the integrity of digital data, neither of which appears to be well understood. For instance, clause 7(2) of the model text prepared by the 15 Caribbean countries in the Group of African, Caribbean and Pacific States (ACP), *Electronic Evidence: Model Policy Guidelines & Legislative Texts* does not take into account the criticisms of the presumption that computers are "reliable" (for which see *Electronic Evidence*, ch 5).

The problem with the majority of the studies produced by regional and international fora (such as the United Nations, European Union and Council of Europe) is the striking lack of citation of any leading text on the topics chosen to be disseminated over the internet. The casual reader will be forgiven for thinking that a document prepared by such an authority and given away free is an authoritative statement on the subject. However, if external tests were to be introduced, the authors of the study would then have to shift through a variety of texts of varying quality, and even then good quality texts might be missed – deliberately or inadvertently. Such is the conundrum of the age of the internet (Bauerlein and others). This does not, arguably, excuse the citation of leading texts, especially when there are so few of them regarding electronic evidence.

ASSESSMENT

To return to the purpose of this essay: whether a similar move towards a global law of electronic evidence is desirable, possible, or inevitable. Professor Wigmore commented, at 109-10, on whether uniformity or assimilation of the national laws of the world was desirable. He determined, rightly, it is suggested, that uniformity as an end in itself is not desirable, although he concluded, at 111, that "uniformity is desirable in so far as it serves to remove some evil or inconvenience, actually experienced, which arises from the diversity of laws". Professor Waldron expanded, at 22, on this in the context of comparative jurisprudence, calling for legal scholars to consider the theory, and not mere impressions that are used by lawyers to press home their arguments:

> *The theory that is called for is not necessarily a complete jurisprudence. But it has to be complicated enough to answer a host of questions raised by the practice: about the authority accorded foreign law, confirmatory verses persuasive verses conclusive: about the areas in which foreign law should and should not be invoked, as in private law, for example, compared to constitutional law; and about which foreign legal systems should be cited. . . . The theory has to be broad enough to explain the use of foreign law in all appropriate cases . . . Above all, it has to be a theory of law.*

Before committing to the development of a "global law of electronic evidence", it is well to be aware of the comments by Professor Twining, who noted, at 249, that "there is an implicit bias towards belief in the possibility and validity of generalisations across cultures, traditions and local histories that just should be taken for granted." In this respect, the useful discussion by Professor Damaška indicates some convergence between what are loosely called common law jurisdictions and civil law or continental law jurisdictions (Damaška, 9, fn 3). Three apparent differences that appear to prevent a move towards a global law of electronic evidence include hearsay, party control over the proceedings, and expert witnesses. Regarding hearsay, continental law jurisdictions deal regularly with hearsay. The difference between common law jurisdictions and continental law jurisdictions is the way legal proceedings unfold. The slow incremental pace of litigation in continental law jurisdictions permits the adjudicator to assess hearsay because the judge invariably questions the maker of the statement (Damaška, pp 12-17; 49; 65; 81, fn 15; 88; 130). This observation takes us to party control over evidence, which is perceived to be a hallmark of the common law, yet it has increasingly become the case that the judge has taken a more active role, especially in case management in the context of electronic discovery or disclosure (Damaška, pp 138-40; 143; 146; 151).

Professor Damaška suggested that there would be more recourse to the use of expert witnesses in the future. Although he did not foretell that it would be for the purposes of explaining electronic evidence, nevertheless he was correct, and this affects all jurisdictions (Damaška, p 33 and "Epilogue"). However, there is a difference in the appointment of experts between jurisdictions. Generally, continental jurisdictions tend to require a potential expert to sit exams and have obtained a number of appropriate qualifications before being admitted to a list of experts controlled by the courts, and the judge instructs the expert, not the parties. In common law systems, the general position is that each party appoints and instructs their own expert, although the expert owes a duty to the court, not to the party. In the field of electronic evidence, some common law jurisdictions have begun to provide the judge with the ability to appoint a joint expert, mainly because of the expense and time consumed in discussing complex matters of electronic evidence. For instance, in England & Wales, the judge can order that a single joint expert be appointed under the Civil Procedure Rules (CPR rule 35.8), although any relevant party may give instructions to the expert (CPR rule 35.8(1)). The appointment of a single digital evidence specialist does not necessarily mean that the court will ask the right questions, or arguably reach the right conclusions, as in the German case of XI ZR 210/03. In addition, the failure of judges and lawyers to understand machines mediated by software also means that

the burden of proof is sometimes not understood properly or applied correctly, for which see the case of *Shojibur Rahman v Barclays Bank PLC.*

These examples imply that a move towards a global or regional law of electronic evidence might be welcome to improve the possibility of establishing consistency in the seizing, examination and assessment of electronic evidence in judicial proceedings. Conversely, the overall tenor of the work cited in this essay indicates that, at best, for the topic of electronic evidence to be considered in terms of a global or regional law, it might be necessary to move towards a shared sense of common heritage across legal systems in this particular field before such a view is accepted. Factors to consider include: how evidence is introduced into proceedings (judge-led or party-led); a common understanding regarding discovery or disclosure, both from the procedural point of view and the practical problems that arise from the characteristics of electronic evidence, and a greater understanding of the nature of software as noted by Professor Waldron at 20.

In this context, of interest is the suggestion by Professor Waldron, at 28, for the existence of a body of law or system of law called the law of nations or *ius gentium,* also referred to by other scholars as "world law", "global law" and "universal law". The aim is to look to an understanding of the law of nations based on *"commonality as between the internal laws of each and every state* rather than on any appeal to the body of law that regulates relations between sovereigns." (p 32, italics in the original). In this respect, the purpose of ius gentium is "a body of world law that helps particular legal systems dispose of certain difficult problems within their own legal jurisdiction or problems that, though internal, require some dimension of harmonization with other jurisdictions" (pp 32; 43). Professor Waldron, at 51, acknowledges this concept is open to irreverent comments, but he is of the view that:

> *As law it has its source in the municipal legal systems of the world: but in its legal effect it transcends those particular systems and presents itself as a body of principles that particular systems may draw down from when they are seeking to resolve difficult issues in a way that is wise and just and in harmony with the way those issues are resolved elsewhere in the world.*

Particularly forceful arguments to suggest a move towards a global or regional law of electronic evidence rest on the fact that commerce in particular has become a truly international phenomenon, and the evidence relating to a case might be stored on devices anywhere in the world. Note is taken of the propositions relating to the challenges of globalisation, general jurisprudence and comparative law and cosmopolitan legal studies by Professor Twining in *Globalisation and legal theory,* 252-56.

GLOBAL OR REGIONAL, CIVIL OR COMMON LAW CONVENTION?

A Convention on electronic evidence does not need to be global: it can cover a particular region, or cover a particular jurisprudential tradition, such as common law or civil law. Indeed, the common law countries have already undertaken work in this area, as mentioned above. The argument for a Convention that applies globally is strongest when considering the wider characteristics that differentiate electronic evidence from what can be referred to as traditional forms of evidence, as the proposed taxonomy, below, suggests.

Towards a taxonomy of electronic evidence

The taxonomy for traditional forms of evidence is well established. Conversely, the taxonomy regarding electronic evidence is still evolving, and at present it includes the following elements, which transcend what we might term traditional forms of evidence. In terms of electronic evidence, it is necessary to include the collection, preservation and admissibility of electronic evidence (taken from Mason (2013)):

i. *Understanding the digital realm*
   a. *The sources of digital evidence*
   b. *The characteristics of digital evidence*
   c. *Encrypted data*
ii. *Authenticity*
   a. *Proof (including the investigation, seizure and examination of digital evidence)*
   b. *"Reliability" and presumptions*
   c. *Authenticating digital data*
   d. *Integrity*
iii. *Hearsay*
   a. *Hearsay*
   b. *Software as the witness*

As will be readily observed, there are some areas of knowledge included in the list above that are not contained in a conventional textbook on evidence. The additional items reflect the nature of electronic evidence. For instance, a more considered approach is necessary regarding how electronic evidence is seized, investigated and examined. This is because this initial process can be so flawed as to render the evidence inadmissible or open to challenges, especially regarding its authenticity.

LEADERSHIP BY THE JUDICIARY AND THE

LEGAL PROFESSION

In 1929, René Magritte painted *The Treachery of Images.* This oil painting now hangs in the Los Angeles County Museum of Art, United States of America. Magritte painted a representation of a pipe used for smoking tobacco, and the words "Ceci n'est pas une pipe" underneath the image. The image he painted is not a pipe, as he pointed out. It is an image of a pipe. *He made the important point about what we see, what we think we see, and what we think we understand*. I suggest that the present position of the legal profession in relation to electronic evidence is similar to Magritte's image, but worse. In explaining this position, I will follow the lead of Professor Giorgio Agamben, from a lecture he gave at the European Graduate School in August 2002, entitled "What is a paradigm?". To end his lecture, he quoted from the poem *Description without place* by Wallace Stevens, one of the great American poets. I am not going to quote from this poem, although it deserves to be read. He chose to use the poem as a definition of an example.

I want to use the oil painting by René Magritte in a similar way, but as a definition of a problem. The problem of electronic evidence stands thus:

1. The legal profession thinks it sees law and justice, because judges and lawyers have a well-developed understanding of substantive law and the assessment of traditional forms of evidence.
2. However, the legal profession is wrong in its complacency.
3. With rare exceptions, the legal profession fails to see what it should see.
4. This means that the vast majority of the legal profession does not even see the image.
5. It follows that this is dangerous.
6. This failure to see must be remedied.

In the absence of electronic evidence becoming a global or regional law, the judiciary and legal profession could take the lead together to engage in an extensive programme of education to require lawyers and judges to more fully understand the nature of electronic evidence in the interests of justice (Wong and Capps).

The poem *Para além da curva da Estrada* by Alberto Caeiro, the heterónimo of Fernando Pessoa, and translated by Richard Zenith as *Beyond the bend in the road*, serves to further highlight the nature of the problem. The first four lines of poem read:

Para além da curva da estrada
Talvez haja um poço, e talvez um castelo,
E talvez apenas a continuação da estrada.
Não sei nem pergunto.

Beyond the bend in the road
There may be a well, and there may be a castle,
And there may be just more road.
I don't know and don't ask.

The point is, we are at the bend – yet most of the legal profession fails to understand this. Regardless of what the purpose of justice might be considered to be in any given jurisdiction, the judicial process ought to provide fairness to those taking part in the proceedings. This should include the requirement that the judge and lawyers have to be competent when dealing with and assessing evidence in electronic format – as should the investigating authorities when dealing with criminal proceedings.

Furthermore, legal academics and those responsible for admitting applicants to become lawyers have a duty to ensure that the future lawyer is in possession of the relevant qualifications, skills and knowledge considered necessary to enable them to provide competent advice to lay clients. The very least the universities could do is to begin to teach electronic evidence to aspiring would-be lawyers. If any subject might be considered to be universal, electronic evidence is probably one of the best examples, and it might lead institutes of higher education to cooperate across countries, as the European universities did in the medieval period (Waldron cites Verger on this point).

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