

Electronic evidence in arbitration proceedings: empirical analysis and recommendations

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Introduction

Alternative dispute resolution has been altered by the digital world in the same way as other forms of litigation, including online dispute resolution and virtual hearings.¹ Moreover, the emergence of electronic evidence has influenced the process of the gathering and assessment of evidence in electronic form.

A brief review of the literature illustrates a significant amount of research papers and books devoted to the evidence in arbitration.² Some have considered electronic evidence in arbitration within one jurisdiction,³ and the research of others has focused on certain forms of electronic evidence such as electronic contracts or electronic signatures.⁴ Some papers on electronic evidence in international arbitration approach arbitration rules for electronic evidence

¹ Ferreira, D., Giovannini, C., Gromova, E., Da Rocha Schmidt, G., Arbitration chambers and trust in technology provider: Impacts of trust in technology intermediated dispute resolution proceedings, [2022] *Technologies in Society*, 2 (68), 101872; Elisavetsky A. and Marun M.V. La tecnología aplicada a la resolución de conflictos. Su comprensión para la eficiencia de las ODR y para su proyección en Latinoamérica, [2020] *Revista Brasileira de Alternative Dispute Resolution*, 3 (2), 51; Manea T., Dragos L. I., AI Use in Criminal Matters as Permitted Under EU Law and as Needed to Safeguard the Essence of Fundamental Rights, [2022] *International Journal of Law in Changing World*, 1, 17, available at <https://ijlcw.emnuvens.com.br/revista/article/view/15>; Gromova E., Ferreira D.B. Guest Editors' Note on Law and Digital Technologies The Way Forward, [2023] *BRICS Law Journal*, 10(1), 5, available at <https://www.bricslawjournal.com/jour/article/view/763>.

² Leroux, Olivier, Legal admissibility of electronic evidence, [2004] *International Review of Law Computers Technology*, 2 (18), 193; Mason, Stephen; Seng, Daniel. Editors. *Electronic Evidence and Electronic Signatures*, [2021] 5th edition. London: Institute of Advanced Legal Studies for the SAS Humanities Digital Library, School of Advanced Study, University of London, 2021, open access at <https://ials.sas.ac.uk/publications/electronic-evidence-and-electronic-signatures>; Frieden, Jonathan D; Murray, Leigh M., The Admissibility of Electronic Evidence Under the Federal Rules of Evidence, [2012] *Richmond Journal of Law and Technology*, 2(17), 2; Furnell, S.M; Warren, M.J. Computer Hacking and Cyber Terrorism: The real threats in the new millennium?, [1999] *Computer and Security*, 18, 28.

³ Qouteshat, O., Alawamleh, K.J. The enforceability of electronic arbitration agreements before the DIFC Courts and Dubai Courts, [2017] *Digital Evidence and Electronic Signature Law Review*, 14, 47, available at <https://journals.sas.ac.uk/deeslr/article/view/2539>; Khaled A. The scope of electronic transactions and electronic evidence in the courts of the United Arab Emirates, [2014] *Digital Evidence and Electronic Signature Law Review*, 11, 37, available at <https://journals.sas.ac.uk/deeslr/article/view/2123>.

⁴ Qouteshat O., Challenges of authentication and certification of e-awards in Dubai and before the Dubai International Financial Centre courts: the electronic signature, [2016] *Digital Evidence and Electronic Signature Law Review*, 19, 97, available at <https://journals.sas.ac.uk/deeslr/article/view/2300>; Dmitrieva A.A., Pastukhov P.S., Concept of Electronic Evidence in Criminal Legal Procedure [2023] *Journal of Digital Technologies and Law*, 1(1), 270, available at <https://www.lawjournal.digital/jour/article/view/155>; Dmitrieva A., Alshdaifat S., Pastukhov P., The Features of the Use of Information Technologies in Criminal Proceedings in the BRICS Countries, [2023] *BRICS Law Journal*, 10(1), 102, available at <https://www.bricslawjournal.com/jour/article/view/767>.

but do not address admissibility issues,⁵ and there has been one attempt to formulate a convention on electronic evidence.⁶

There does not appear to be any research on electronic evidence in relation to arbitration that explicitly focuses on the admissibility, its use by the parties and relevance. Also, no research deals with empirical case analysis to assess electronic evidence and its different categories specifically in arbitration.

The aim of this paper is to offer a concept of electronic evidence in international arbitration, including the criteria of its admissibility and relevance, authentication, and to set out a sample of arbitration proceedings to assess the use of electronic evidence by the parties and its relevance in the arbitration proceeding from the tribunal point of view.

Comparative legal analysis of the international and arbitration rules and national procedure law allowed us to compare the regulatory approaches to the definition of electronic evidence and its admissibility worldwide. Moreover, the case study method allowed us to analyse the data of a large sample of arbitration proceedings (92 proceedings) provided by the Brazilian Center for Mediation and Arbitration.

The paper consists of the following parts: an analysis of the regulatory approaches to the definition of electronic evidence; an analysis and assessment of the use of electronic evidence in arbitration proceedings; a consideration of the admissibility and authentication criteria of electronic evidence; and sets out recommendations to improve the electronic evidence assessment in arbitration.

Definition of electronic evidence in state law, model laws, guidelines and arbitration rules

The main international model law for arbitration is the UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006, and adopted in 85 countries and 118 jurisdictions.⁷ Article 7 (3)(4) of Option I admits, for example, an arbitration agreement concluded by electronic communication.⁸ However, the procedural rules in arbitration permit the parties to choose which procedure to follow (for which see article 19 of the UNCITRAL Model Law). For this reason, evidence assessment guidelines and arbitration rules are, we consider, crucial in this analysis.

There are two guidelines used in international arbitration for the taking of evidence: The International Bar Association (IBA) 'IBA Rules on the Taking of Evidence in International Arbitration',⁹ and the 'Rules on the Efficient Conduct of Proceedings in International Arbitration (Prague Rules)' from 2018.¹⁰ These guidelines, once endorsed by the parties (preserving the parties' autonomy) and adopted by the arbitral tribunal, set the parameters on how the arbitrators must conduct the proceedings when it comes to evidence and the way to assess the evidence.

The IBA rules 'reflect procedures in use in many different legal systems, and they may be particularly useful when the parties come from different legal cultures'.¹¹ That is, the Rules were designed to be a bridge between parties belonging to different legal cultures: common law and civil law. The common law tradition dominates the IBA Rules.

⁵ Pavlovskaya V. Digital Evidence in International Commercial Arbitration: High time or high hopes? *Arbitration Journal*, <https://journal.arbitration.ru/ru/analytics/digital-evidence-in-internationalcommercial-arbitration-high-time-or-high-hopes/?ysclid=l6jnmtcqq120632664> .

⁶ Mason, Stephen and others Draft Convention on Electronic Evidence, [2016] *Digital Evidence and Electronic Signature Law Review*, 13, 1, available at <https://journals.sas.ac.uk/deeslr/article/view/2321> .

⁷ https://uncitral.un.org/en/texts/arbitration/modellaw/commercial_arbitration ; Gevaerd J. Internationality and Commerciality in the UNCITRAL Model Law: A Functional and Integrative Analysis, [2019] *Revista Brasileira de Alternative Dispute Resolution*, 1(2), 19, available at <https://rbadr.emnuvens.com.br/rbadr/article/view/40/25> .

⁸ UNCITRAL MODEL LAW – Chapter II – Arbitration Agreement – Option 1 – Article 7 – Definition and form of arbitration agreement - (3)(4) - (3) An arbitration agreement is in writing if its content is recorded in any form, whether or not the arbitration agreement or contract has been concluded orally, by conduct, or by other means. (4) The requirement that an arbitration agreement be in writing is met by an electronic communication if the information contained therein is accessible so as to be useable for subsequent reference; “electronic communication” means any communication that the parties make by means of data messages; “data message” means information generated, sent, received or stored by electronic, magnetic, optical or similar means, including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy.

⁹ <https://www.ibanet.org/MediaHandler?id=def0807b-9fec-43ef-b624-f2cb2af7cf7b> .

¹⁰ https://praguerules.com/prague_rules/ .

¹¹ IBA Rules Foreword, p 5.

The Prague Rules were designed as a response for a more civil law-based set of rules. The IBA rules have an adversarial approach, whereas the Prague Rules advocate an inquisitorial approach, which leaves room for a proactive role of the tribunal in fact-finding, for which see article 3.1.¹²

Definition of documents and disclosure

The IBA rules define ‘document’ on page 7 as ‘writing, communication, picture, drawing, program or data of any kind, whether recorded or maintained on paper or by electronic, audio, visual or any other means;’ this definition includes electronic evidence. Article 3(a)(ii) refers to a request to produce documents and provides that electronic documents shall be accompanied by the identification of specific files, search terms, and individual or other means of searching for the documents in an efficient and economical manner. The parties should consider if metadata will form part of the disclosure. This identification is to be requested by the requesting party or the arbitral tribunal. The IBA rules also establish, in article 3(12)(b), that electronic documents ‘shall be submitted or produced in the form most convenient or economical to it that is reasonably usable by the recipients’. The aim is to avoid unnecessary work and to facilitate the arbitrators’ and lawyers’ analysis.

The Prague Rules do not define what a document is, but encourages, in article 4.2, the arbitral tribunal and the parties to avoid any form of document production, including electronic disclosure, to make the procedure more efficient. Article 4.7 provides for disclosure and a presumption of authentication: ‘Documents shall be submitted or produced in photocopies and/or electronically. The submitted or produced documents are presumed to be identical to the originals unless disputed by the other party.’ The arbitral tribunal may, at the request of a party or by its initiative, order the party to present the original for examination by the arbitral tribunal or expert.

Checklists

In this matter, it is helpful to consider checklists on how to produce electronic evidence in arbitration in a cost-effective fashion. The International Chamber of Commerce (ICC) has issued two helpful reports: the 2016 ICC Commission Report on Managing E-Document Production,¹³ and the 2018 ICC Commission Report on Controlling Time and Costs in Arbitration.¹⁴ The 2016 ICC Commission Report mentions that the parties should consider five factors for the scope of production: 1. Timing, number and focus of request; 2. Specificity of requests; 3. Accessibility of sources; 4. Metadata; 5. Use of electronic tools and methods.

Admissibility of electronic evidence

Both sets of guidelines deal with the admissibility of electronic evidence broadly, because they have a supplementary role, and are not substitute institutional arbitration rules or the rules chosen in ad hoc proceedings. For instance, article 9 (admissibility and assessment of evidence) of the IBA Rules gives the arbitral tribunal the power not to admit evidence for several reasons (e.g., lack of relevance; legal impediment or privilege; unreasonable burden; considerations of procedural economy or efficiency).’ The IBA Rules can be considered to be more objective in dealing with electronic evidence on this basis.

Arbitrators usually admit evidence, then assess its weight.¹⁵ There are three crucial concepts in the law of evidence: burden of proof, admissibility, and relevance.¹⁶ The burden of proof is self-explanatory, and it simply means that the party who claims the existence of a fact must prove the claim. It is the parties’ duty to produce evidence at different

¹² See Amaral, Guilherme Rizzo. Prague Rules v. IBA Rules and the Taking of Evidence in International Arbitration: Tilting at Windmills – Part I, available at <https://arbitrationblog.kluwerarbitration.com/2018/07/05/prague-rules-v-iba-rules-taking-evidence-international-arbitration-tilting-windmills-part/>.

¹³ The document is copyright 2012, but the date of publication is July 2016, available at <https://iccwbo.org/wp-content/uploads/sites/3/2022/01/icc-arbitration-adr-commission-report-on-managing-e-document-production-english-version.pdf>.

¹⁴ <https://cdn.iccwbo.org/content/uploads/sites/3/2018/03/icc-arbitration-commission-report-on-techniques-for-controlling-time-and-costs-in-arbitration-english-version.pdf>.

¹⁵ Mason, Stephen; Seng, Daniel. Editors. Electronic Evidence and Electronic Signatures, [2021] 5th edition. London: Institute of Advanced Legal Studies for the SAS Humanities Digital Library, School of Advanced Study, University of London, 68.

¹⁶ Leroux, Olivier, Legal admissibility of electronic evidence, [2004] International Review of Law Computers Technology, 2 (18), 197.

points of a trial and respond to evidence produced against them. Thus, it belongs to neither party exclusively.¹⁷ The decision of a judge and arbitrator provides an analysis of the weight of the available evidence that corresponds to a specific burden of proof.¹⁸

Admissibility is strictly a matter of law for the judge or arbitrator. It does not concern the weight of specific evidence in decision-making. Accordingly, the adjudicator must assess the validity of the evidence. Relevance is a matter of appreciation by the judge or arbitrator. Relevance is a degree determined by the adjudicator's experience and common sense. Evidence is relevant if it can prove or disprove a fact logically.¹⁹

It is interesting to note in the 2016 SIAC Rules that the tribunal is not required to apply the rules of evidence of any applicable law when assessing evidence (Rule 19.2). Although the tribunal should take the parties' view on the evidence approach, its discretion is guaranteed. Regulating this matter in the terms of reference is advisable, and if the parties disagree, it should be resolved in a procedural order in an early stage.²⁰ There are no specific rules in arbitration for assessing electronic evidence as a particular type of evidence.

The UNCITRAL Model Law and the arbitration rules of a number of international arbitration organizations relating to electronic evidence and the admissibility of electronic evidence are set out below:

UNCITRAL Model Law on International Commercial Arbitration

Addresses the topic of evidence in article 27. Nevertheless, it does not mention evidence in electronic form. Article 19(2) states that 'The power conferred upon the arbitral tribunal includes the power to determine the admissibility, relevance, materiality and weight of any evidence.' This paragraph is relevant when it comes to the assessment of electronic evidence.

London Court of International Arbitration²¹ (2020) (LCIT)

Does not address specifically electronic evidence, although it authorizes, in article 26.2, the award to be signed electronically.

International Chamber of Commerce Rules of Arbitration²² (2021)

Do not address electronic evidence dealing with the topic in general terms in article 25 (establishing the facts of the case). Moreover, the rules do not address the concepts of admissibility and relevance of the evidence.

Stockholm Chamber of Commerce Arbitration Rules²³ (2023) (SCC)

Addresses evidence in article 31, and article 31(1) provides that the admissibility, relevance, materiality and weight of evidence is for the arbitral tribunal to determine.

American Arbitration Association International Centre for Dispute Resolution²⁴ (2021) (AAA-ICDR)

Addresses electronic evidence, specifically in article 24(6) regarding documents kept in electronic form. Interestingly, any requests for documents maintained in electronic form should 'be narrowly focused and structured to make searching for them as economical as possible.' This provision implies that search criteria should be established beforehand by the requesting party.

¹⁷ Thayer, James B., The burden of proof. [1890] Harvard Law Review, 2 (4), 46. Kaplow, Lous, Burden of Proof, [2012] The Yale Law Journal, 121, 741.

¹⁸ Kaplow, Lous, Burden of Proof, [2012] The Yale Law Journal, 121, 741.

¹⁹ Leroux, Olivier, Legal admissibility of electronic evidence, [2004] International Review of Law Computers Technology, 2 (18), 193-220. Pierre F.B., Gong X., Judicial arbitration of unfair dismissal cases: The role of peer effects, [2020] International Review of Law and Economics, 64, 105947.

²⁰ Landolt, Phillip, Arbitrators' Initiatives to Obtain Factual and Legal Evidence. Arbitration International, 2(28), 223.

²¹ https://www.lcia.org/Dispute_Resolution_Services/lcia-arbitration-rules-2020.aspx .

²² <https://iccwbo.org/dispute-resolution-services/arbitration/rules-of-arbitration/> .

²³ <https://sccarbitrationinstitute.se/en/resource-library/rules-and-policies/scc-rules> .

²⁴ https://www.adr.org/sites/default/files/ICDR_Rules_0.pdf .

Singapore International Arbitration Centre²⁵ (2016) (SIAC)

Article 19.2 states that ‘The Tribunal shall determine the relevance, materiality and admissibility of all evidence. The Tribunal is not required to apply the rules of evidence of any applicable law in making such determination.’ The rules do not address electronic evidence expressly.

Hong Kong International Arbitration Centre²⁶ (2018) (HKIAC)

Articles 22.2 and 22.3 follow the same pattern as SIAC, SCC, and LCIA empowering the tribunal to ‘determine the admissibility, relevance, materiality and weight of the evidence, including whether to apply strict rules of evidence’ and to ‘admit or exclude any documents, exhibits or other evidence.’ HKIAC arbitration rules also do not mention electronic or digital evidence.

JAMS Mediation, Arbitration and ADR Services²⁷ (2021) (JAMS)

Article 24.4 addresses the topic of evidence in general terms, including the principles of legal privilege. ‘The Tribunal will determine the admissibility, relevance, materiality and weight of the evidence offered by any party. The Tribunal will take into account applicable principles of legal privilege, such as those involving the confidentiality of communications between a lawyer and client.’

International Centre for Settlement of Investment Disputes Arbitration Rules²⁸ (2022) (ICSID)

Follows the primary international arbitration providers’ pattern and provides for the tribunal’s discretion to admit or reject a piece of evidence. Rule 36(1) states ‘The tribunal shall determine the admissibility and probative value of the evidence adduced.’

To sum up, the arbitration rules of the major rule makers provide for the arbitration tribunal with the power to decide on the admissibility of evidence, regardless of form. Only the American Arbitration Association International Centre for Dispute Resolution addresses electronic documents expressly. The LCIA, ICC, SCC, SIAC, HKIAC, JAMS, and ICSID arbitration rules address evidence in general terms, granting the tribunal with a broad discretion to analyse the admissibility and relevance of evidence.

Authentication of electronic evidence

Trust in electronic evidence is a crucial factor, and Eoghan Casey has noted that the lack of trust has several common causes: mishandling; misinterpretation; concealment, and misexplanation.²⁹ Stephen Mason and Timothy Reiniger highlight the distrust in machines controlled by software, and the difficulty in determining responsibility and the need of mechanisms to reduce the risks.³⁰ Algorithmic bias is a serious concern.³¹ It is also helpful to harmonize

²⁵ <https://siac.org.sg/siac-rules-2016> .

²⁶ <https://www.hkiac.org/arbitration/rules-practice-notes/hkiac-administered-2018> .

²⁷ <https://www.jamsadr.com/international-arbitration-rules/> .

²⁸ https://icsid.worldbank.org/sites/default/files/Arbitration_Rules.pdf .

²⁹ Casey, Eoghan, Trust in digital evidence, [2019], *Forensic Science International: Digital Investigation*, 31, 200898, available at <https://www.sciencedirect.com/science/article/abs/pii/S2666282519300647> .

³⁰ Mason, Stephen, and Reiniger, Timothy S, ‘Trust’ between Machines? Establishing Identity Between Humans and Software Code, or whether You Know it is a Dog, and if so, which Dog?, [2015], *Computer and Telecommunications Law Review*, 21, 5, 135 – 148.

³¹ The following is a list of recent articles from different jurisdictions on the topic (this list is not exhaustive): Konstantin Chatziathanasiou, ‘Beware the Lure of Narratives: “Hungry Judges” Should Not Motivate the Use of “Artificial Intelligence” in Law’, 23 *German L.J.* 452, available at <https://www.cambridge.org/core/journals/german-law-journal/article/beware-the-lure-of-narratives-hungry-judges-should-not-motivate-the-use-of-artificial-intelligence-in-law/734C6F05568636FE09A26D1C4D52D627> ; Alexandra B. Harrington, ‘Automation Nation: What Happens When Algorithms Decide Entry for Immigrants and Refugees?’, 95-APR *N.Y. St. B.J.* 32, available at <https://nysba.org/automation-nation-what-happens-when-algorithms-decide-entry-for-immigrants-and-refugees/> ; Richard Mackenzie-Gray Scott, ‘Managing Misinformation on Social Media: Targeted Newsfeed. Interventions and Freedom of Thought’, 21 *Nw. J. Hum Rts.* 109, available at <https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1251&context=njihr> ; Karen Yeung and Adam Harkens, ‘How do “technical” design choices made when building algorithmic decision-making tools for criminal justice authorities create constitutional dangers? (Part I)’, *P.L.* 2023, April, 265-286; Jed Meers, ‘Artificial intelligence, equality and

forensic practices. In this respect, it is important to educate judges, arbitrators and lawyers in digital forensics³² and electronic evidence.³³

No institutional arbitration rules, guidelines or domestic arbitration law refer to the necessity of authenticating evidence, let alone electronic evidence. By way of example, we compare the position in the US and Brazil below.

For instance, in US federal courts, Rule 901(a) of the Federal Rules of Evidence establishes an authenticity standard stating that the party must provide sufficient evidence to support a finding that the item is what the proponent claims it is.³⁴ The Judicial Conference Advisory Committee on Evidence Rules decided that guidelines addressing factors to be taken in account for authenticating electronic evidence were not necessary due to two main issues namely: 1. Length of rulemaking that could outdate the rules; 2. Rules on authenticity must be broad and flexible to cover electronic evidence.³⁵

In Brazil, article 384 of the 2015 Civil Procedure Code considers authentic any evidence (including electronic) certified employing minutes drawn up by a notary public.³⁶ This certification is also valid for evidence in arbitration proceedings. There are also private companies that offer an electronic evidence authentication service that is accepted in the national courts, such as Verifact, which claims to collect electronic evidence from WhatsApp (web/desktop), Facebook, Instagram, Twitter, Telegram (web), Youtube videos, webmails, blogs, virtual stores with technical reliability, and judicial validity.³⁷

In arbitration proceedings in Brazil,³⁸ parties can, and depending on the type of electronic evidence, should, certify and prove its authenticity. Nevertheless, arbitrators usually confirm the authenticity of electronic evidence during the hearing with the author or a witness.

human rights: new guidance', J.S.S.L. 2022, 29(3), 171; Yap Jia Qing and Ernest Lim, 'A legal framework for artificial intelligence fairness reporting', C.L.J. 2022, 81(3), 610-644; Baker, Ryan S, and Hawn, Aaron, Algorithmic Bias in Education, [2022], International Journal of Artificial Intelligence in Education, 32, 1052-1092; Dominique Garingan and Alison Jane Pickard, 'Artificial intelligence in legal practice: exploring theoretical frameworks for algorithmic literacy in the legal information profession', L.I.M. 2021, 21(2), 97-117; Cyman D., Gromova E., Juchnevicius E. Regulation of Artificial Intelligence in BRICS and the European Union, [2021], BRICS Law Journal. 8, 1, 86-115, available at <https://doi.org/10.21684/2412-2343-2021-8-1-86-115> ; the major English case on bias and software is *R. (on the application of Bridges) v Chief Constable of South Wales Police*, [2019] EWHC 2341 (Admin), [2019] HRLR 16, [2020] 1 Cr App R 3, [2019] ACD 122, [2019] WLR(D) 496, [2020] 1 WLR 672, [2020] 1 All ER 864, [2020] WLR 672, available at <https://www.bailii.org/ew/cases/EWCA/Civ/2020/1058.html> .

³² Kessler, Gary C, Judges' Awareness, understanding, and application of digital evidence, [2011], The Journal of Digital Forensics, Security and Law, 6, 1, 55-72, available at <https://commons.erau.edu/jdfsl/vol6/iss1/4/> .

³³ For calls for education, see Editorial, 4 *Digital Evidence and Electronic Signature Law Review* 2007; Editorial, 7 *Digital Evidence and Electronic Signature Law Review* 2010; Editorial, 9 *Digital Evidence and Electronic Signature Law Review* 2012 – particularly pertinent; Editorial, 10 *Digital Evidence and Electronic Signature Law Review* 2013 (including a free syllabus), <https://journals.sas.ac.uk/deeslr/article/view/2017> ; Denise H Wong, 'Educating for the future: teaching evidence in the technological age' (2013) 10 *Digital Evidence and Electronic Signature Law Review* 16, <https://journals.sas.ac.uk/deeslr/article/view/2018> ; Deveral Capps, 'Fitting a quart into a pint pot: the legal curriculum and meeting the requirements of practice' (2013) 10 *Digital Evidence and Electronic Signature Law Review* 23, <https://journals.sas.ac.uk/deeslr/article/view/2019> ; Editorial, 13 *Digital Evidence and Electronic Signature Law Review* 2016; Editorial, 17 *Digital Evidence and Electronic Signature Law Review* 2020.

³⁴ https://www.law.cornell.edu/rules/fre/rule_901 .

³⁵ Grim, Paul W, Capra, Daniel J; Joseph, Gregory P; Authenticating Digital Evidence, [2017], Baylor Law Review, 69, 1-55, available at <https://www.baylor.edu/law/review/doc.php/286449.pdf> .

³⁶ https://www.planalto.gov.br/ccivil_03/ato2015-2018/2015/lei/113105.htm .

³⁷ <https://www.verifact.com.br/> .

³⁸ For arbitration in Brazil see Schmidt, Gustavo; Ferreira, Daniel B; Oliveira, Rafael C. R; Comentários à Lei de Arbitragem, [2021], Rio de Janeiro: Editora Método.

For this reason, jurisdiction-neutral guidelines have been drafted to aid assessment,³⁹ and further guidelines have been drafted for the use of judges and arbitrators.⁴⁰ Should it be necessary for the parties to consider the authentication of electronic evidence, it will be necessary to engage a suitably qualified digital evidence professional to advise the parties. In addition, it is relevant to note that where there is a legal presumption of the reliability of computers,⁴¹ an expert opinion may be required.

The weight of electronic evidence in arbitration: an empirical analysis

The arbitration rules of the leading arbitral institutions naturally provide for the concept of relevance and weight to the assessment of evidence. To ascertain the application of such concepts, we analysed a number of arbitral proceedings to evaluate the use of electronic evidence by the parties (claimant or respondent) and the application of electronic evidence by the arbitrators in their awards. Our sample is 92 (ninety-two) arbitral proceedings managed by the Brazilian Center for Mediation and Arbitration (CBMA). We analysed all digitally available proceedings dating between 2016 and 2022. As a limitation, most of the arbitration proceedings in the sample were continuing at the time of this paper, and have no final award rendered (47 in total, mostly 2021 and 2022).

The CBMA is a leading arbitration institution in Brazil that manages domestic commercial and sports law arbitration (mainly proceedings from the National Chamber of Dispute Resolution of the Brazilian Soccer Confederation – Câmara Nacional de Resolução de Disputas) (CBF), where CBMA functions as an appellate court.⁴² Of the 92 procedures under analysis, 55 are commercial arbitration proceedings (one being fast-track arbitration), and 37 are sports arbitration proceedings (35 appeals and two ordinary sports proceedings).

Electronic evidence was included in most of the procedures. 68 (sixty-eight) claimants made use of electronic evidence in one or more of the 6 (six) categories, whereas 42 (forty-two) respondents used electronic evidence to present their case. The claimants used electronic evidence in 74 per cent of the arbitration proceedings, while the respondents made the same use in 45 per cent of the proceedings. From this, we can conclude that there is a prevalence of 29 per cent of the claimants relying on electronic evidence.

For simplicity, we divided the electronic evidence into 6 (six) categories: 1. Electronic documents; 2. Emails; 3. Videos; 4. Instant and text messages; 5. Proof of transactions; 6. Images and print screens; 6. Records of electronic proceedings (judicial and administrative). We found the following use of the different types of electronic evidence distributed throughout our 92 arbitration proceedings sample:

Table 1. Electronic evidence types and percentage of its use

Electronic evidence type	Percentage of use in 92 arbitration proceedings – sample
Electronic documents (e.g., Office365 documents; electronically signed documents, and scanned hard copies)	61 per cent
E-mails	46.5 per cent
Videos	4.5 per cent

³⁹ Marshall, Paul; Christie, James; Ladkin, Peter B; Littewood, Bev; Mason, Stephen, Newby, Martin; Rogers, Jonathan; Thimbleby, Harold, and Thomas, Marty, Recommendations for the probity of computer evidence, *Digital Evidence and Electronic Signature Law Review*, [2021], 18, 18-26, available at <https://journals.sas.ac.uk/deeslr/article/view/5240>.

⁴⁰ Jackson, Michael, An approach to the judicial evaluation of evidence from computers and computer systems, *Digital Evidence and Electronic Signature Law Review*, [2021], 18, 50-55 available at <https://journals.sas.ac.uk/deeslr/article/view/5289>.

⁴¹ For the presumption in England and Wales, see Chapter 5 of Mason, Stephen; Seng, Daniel. Editors. *Electronic Evidence and Electronic Signatures*, [2021] 5th edition. London: Institute of Advanced Legal Studies for the SAS Humanities Digital Library, School of Advanced Study, University of London, 2021.

⁴² For more information about CBMA as an appellate sports institution see: Schmidt, Gustavo R; Ribeiro, Natália; Ferreira, Daniel B. The Brazilian Center for Arbitration and Mediation (CBMA) as an appellate sports arbitration institution, [2021] *Revista Brasileira de Alternative Dispute Resolution – RBADR*, 3 (6), 93, available at <https://rbadr.emnuvens.com.br/rbadr/article/view/141>.

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Text and Instant Messages	16.5 per cent
Transactions (e.g., digital receipts of payment)	16.5 per cent
Images and internet print screens	33.5 per cent
Electronic proceedings (administrative and judicial) (e.g., Brazilian judicial and administrative proceedings are almost entirely digital. This hypothesis is when the parties use a digital judicial proceeding as evidence in an arbitration proceeding).	15 per cent

There is a preponderance of electronic documents⁴³ (61 per cent) and emails (46.5 per cent). In sports arbitration, the parties regularly use instant and voice messages from electronic apps as evidence. Audio messages from WhatsApp and print screens of text messages were found in 15 (fifteen) out of the 37 (thirty-seven) sports arbitration proceedings (40.5 per cent). This category of electronic evidence is typically used in sports arbitration since it was not used in any of the 55 (fifty-five) commercial arbitration proceedings.

None of the electronic evidence used from the sample had its authenticity questioned either by the parties or by the arbitral tribunal. That means there was no need for an expert appointment to assess the evidence in any case. This clearly demonstrates that the parties have no cause to challenge the authenticity of the electronic evidence, or they are not aware of a reason to challenge the evidence.

To assess the relevance of electronic evidence to arbitration proceedings, it is of interest to consider the reasoning to arbitration awards. In our research, most procedures are ongoing, others are suspended, and some reached settlement agreements. However, in six (6) awards, arbitrators specifically mentioned electronic evidence as decisive for their reasoning, as shown in table 2.

Table 2. Electronic evidence mentioned as decisive

Arbitration commencement year	Arbitration type	Electronic evidence category cited in the arbitration award
2016	Commercial	E-mail
2018	Sports	Electronic document
2019	Sports Appellate	Electronic proceedings, transaction, proof of transaction, WhatsApp voice message
2019	Commercial	Electronic judicial record
2019	Commercial	E-mail and electronic document
2019	Sports Appellate	E-mail and electronic documents

As noted above, WhatsApp messages (audio and print screens) were identified as being used in sports arbitration at the Brazilian Center for Mediation and Arbitration. In contrast, in commercial arbitration cases, there is a reliance on electronic documents and emails. The main reason is that sports arbitration involves individuals, not legal entities. (WhatsApp is the top used communication app in Brazil; 169 million users in Brazil. India is number 1). Therefore, because the relationship between the parties is personal in this type of arbitration, WhatsApp messages are the primary evidence, as demonstrated in the table below. We selected 6 (six) cases from the CBMA sports arbitration caseload where the parties used WhatsApp messages as evidence. The parties presented WhatsApp audios in 3

⁴³ We considered the following as electronic documents: files produced by computer software (Word, Excel, PowerPoint, etc.); scanned hard copies; Administrative decisions; Judicial sentences; Electronically signed contracts; Ad hoc petitions of administrative and judicial proceedings; Electronically signed documents; Electronic letter; Digital informative leaflets.

(three) proceedings, and in the other three, they presented WhatsApp print screens. 5 (five) cases are still ongoing. The final award was rendered in one of them, and the WhatsApp evidence was considered vital. In the table, we also show the type of parties involved (e.g., soccer clubs, players, managers, intermediaries) and the grounds the evidence attempts to prove.

Table 3. Sports arbitration and the use of WhatsApp messages as primary evidence

Parties type	WhatsApp audio or print screen	Allegation	Award
Soccer Club (Appellant) v. Soccer Club (Respondent)	Audio	Appellant: presented WhatsApp audio to prove that the club President agreed with a soccer player’s contract early termination. Respondent: presented WhatsApp audio to demonstrate that the conversations presented by the appellant occurred after the dismissal of the athlete’s termination of the employment contract.	The award considered that the soccer club acted in bad faith judging by the WhatsApp audios. The WhatsApp audios proved that the player’s contract was terminated one month before the date alleged by the Respondent.
Intermediary (Appellant) v. Soccer Club (Respondent)	Audio	Appellant: The intermediary presented WhatsApp audio to prove his participation in the player’s negotiation and earn his commission.	Final award pending
Soccer Player (Appellant) v. Two Soccer Player Agencies (Respondents)	Audio	Appellant: WhatsApp audios presented to prove that the soccer player owes the intermediary commission. The audios show that the player (appellant) accepted the intermediation agencies’ proposal.	Final award pending
Intermediary (Appellant) v. Soccer Club (Respondent)	Print Screen	Appellant: WhatsApp print screens presented to add weight in proving the soccer player signed the contract with the business.	Final award pending
Soccer Club (Appellant) v. Soccer Club (Respondent)	Print Screen	Appellant: WhatsApp print screens presented to prove that the other party did not fulfil a soccer player purchase agreement.	Final award pending
Soccer Player (Appellant) v. Soccer Player Agency (Respondent)	Print Screen	Appellant: WhatsApp print screens presented to prove that the negotiation was cancelled in due time; therefore, the Agency was not entitled to any commission.	Final award pending

Electronic evidence is used commonly by the parties to arbitration. In 77 (seventy-seven) proceedings (83.7 per cent), we found at least one type of electronic evidence used by either the claimant or the respondent. That is, parties and arbitrators are becoming increasingly used to electronic evidence.

Recommendations on electronic evidence in arbitration: first steps

Arguably, because the assessment of electronic evidence is not included in arbitration rules, it would be helpful to provide arbitrators and parties with recommendations on electronic evidence, such as the types of evidence,

assessment, and any relevant procedures, including the differences in the treatment of evidence in individual jurisdictions.

Training and education of arbitrators in digital forensics and electronic evidence through institutes such as the Chartered Institute of Arbitrators would be helpful. The aim is to encourage arbitrators to understand the concept of electronic evidence more fully in relation to fairness and due process in arbitration proceedings. In this way, the tribunal can promote the adequate assessment of the electronic evidence submitted and apply appropriate rules.

Because arbitration is a legal proceeding, the 2016 Draft Convention on Electronic Evidence can apply to it. The Draft Convention was deliberately written as being neutral between common and civil law jurisdictions. We recommend that it be revised generally, and include a specific provision for arbitration in the light of arbitration rules and guidelines, especially the IBA Rules on the Taking of Evidence in International Arbitration, which is regularly applied in the field. Any recommendations in the form of report or institutional administrative resolution should ideally comply with the IBA Guidelines on Conflicts of Interest in International Arbitration, follow the best practices in international arbitration,⁴⁴ and be compatible with the 2016 Draft Convention on Electronic Evidence.⁴⁵

Conclusion

Given that electronic evidence is rapidly increasing in arbitration, as noted in our empirical analysis, and that most evidence is not authenticated, we consider there are unnecessary risks that the arbitrator will admit and consider forged electronic evidence. In this respect, educating the ADR community on electronic evidence and digital forensics is crucial, for the arbitrator has a far more active role in the production of evidence than in formal legal proceedings, although it is necessary for arbitration rules to continue to remain flexible and to retain the discretion of the arbitrator in assessing the evidence.

There will come a day when a dispute arises in the digital world, or the witness will be a digital entity. In this case, arbitrators must be ready to face an entirely technological proceeding and respect the fundamental arbitration procedural principles. Therefore, an update on the 2016 Draft Convention on Electronic Evidence to include arbitration could be helpful for future applications, and it would be useful for the Draft Convention to be adopted and revised by an international authority for the good of all.

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⁴⁴ <https://www.ibanet.org/MediaHandler?id=e2fe5e72-eb14-4bba-b10d-d33dafee8918> .

⁴⁵ <https://journals.sas.ac.uk/deeslr/article/view/2321> .