COMPARISON AND APPLICATION OF THE *MODEL LAW OF ELECTRONIC TRANSFERABLE RECORDS* AND THE *ELECTRONIC TRADE DOCUMENTS ACT 2023* (UK)

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1. Introduction

This paper analyses and compares the *UNCITRAL Model Law of Electronic Transferable Records* (MLETR) with the *Electronic Trade Documents Act 2023* (UK) (ETDA).[1] The purpose is to provide consideration for the preferable approach, wording, structure and provisions for possible enactment into law with a focus on International Trade. Both the MLETR and ETDA are intended to give effect to the electronic equivalent of certain transferable documents and instruments used in international trade which the law has typically regarded as being paper based only. These documents and instruments typically have the feature of encompassing an obligation or right to payment or possession of goods, and include bills of lading, warehouse receipts, bills of exchange and promissory notes typically utilised in an International Trade and Maritime context.

In relation to the ETDA the Law Reform Commission of England and Wales has stated:

> [T]he Bill sets out certain "gateway criteria" that a document in electronic form must satisfy in order to qualify as an "electronic trade document". We recommend that electronic trade documents (that is, documents in electronic form which satisfy the gateway criteria) should be capable of being possessed, and that this principle should be set out explicitly in statute.[2]

Although different terminology is used, this is also the approach taken by UNCITRAL in the MLETR.

> The MLETR applies to electronic transferable records that are functionally equivalent to transferable documents or instruments. Transferable documents or instruments are paper-based documents or instruments that entitle the holder to claim the performance of the obligation indicated therein and that allow the transfer of the claim to that performance by transferring possession of the document or instrument.[3]

The conclusion is that nations such as Australia and New Zealand should implement the form proposed by UNCITRAL in the MLETR. The fundamental purpose of UNCITRAL is to harmonise and standardise, where possible, international trade law to achieve greater uniformity, ease and legal certainty. The ETDA provides for UK Digitalisation, but at the cost of divergence in using competing expressions and terminology. The MLETR provides a template designed for multiple jurisdictions and legal systems. Enacting alternative forms and wording complicates and risks trade practice. Digital fragmentation would have the effect of slowing development and generating additional barriers.

2. Background

Consideration must be made of earlier UNCITRAL texts. The *Model Law of Electronic Commerce* (MLEC) was adopted and formally released by UNCITRAL in 1996. Legislation based on or influenced by MLEC has been adopted in more than 170 jurisdictions.[4] The purpose of MLEC is to enable and facilitate commerce conducted using electronic means by providing national legislators with a set of internationally acceptable rules. Its focus was to provide functional equivalence for paper documents and signatures generally. It is often overlooked that

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[1] UNCITRAL) stands for United Nations Commission on International Trade Law.

[2] Law Commission of England and Wales, "Electronic Trade Documents" <https://lawcom.gov.uk/project/electronic-trade-documents/>

[3] UNCITRAL Model Law on Electronic Transferable Records 2017 (MLETR), Statement of Purpose <https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records>

[4] *UNCITRAL Model Law on Electronic Commerce* 1996 (MLEC) <https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce/status>

the MLEC is in two parts. Part one deals with "Electronic commerce in general" and provides the foundation for electronic commerce as we know it today. Part two is not so well known or adopted. It comprises articles 16 and 17, and was UNCITRAL's first attempt to provide for requirement where a "*right or obligation* must be conveyed to (another) person by the transfer, or use of, a paper document".[5] Article 17(3) provides that the "requirement is met if the *right or obligation* is conveyed by using one or more data messages, provided that a reliable method is used to render such data".[6] Whilst MLEC is has been widely adopted, only four States have enacted articles 16 and 17, and their use in international trade has been unreported.[7] This is most likely due to the lack of sophisticated and reliable technology to fulfil its functions in the 1990s.

In 2005 UNCITRAL adopted and released the *United Nations Convention on the Use of Electronic Communications in International Contracts* (2005) (ECC).[8] The ECC has been ratified, acceded to or accepted by 21 States;[9] and has been signed, but not yet ratified by a further eleven states.[10] Other states have declared their intention of adopting the ECC.[11] Notably, the Working Group deliberately excluded applying the functional equivalence provisions to "negotiable instruments or documents of title" citing "the particular difficulty of creating an electronic equivalent of paper-based negotiability, a goal for which special rules would need to be devised".[12] Sub article 2(2) provides:

> 2. This Convention does not apply to bills of exchange, promissory notes, consignment notes, bills of lading, warehouse receipts or any transferable document or instrument that entitles the bearer or beneficiary to claim the delivery of goods or the payment of a sum of money.

In 2009 UNCITRAL proposed a three-day colloquium on electronic transferable records to fill the void left by the ECC. The colloquium was held in New York in February 2011.[13] UNCITRAL proposed that the topics include enabling the use of transferable documents and instruments in electronic form, focusing on establishing functional equivalence rules for the paper-based notions of 'possession' and 'delivery' which were central to the use of transferable documents and instruments.[14] The Commission provided a mandate to Working Group IV to commence discussions and drafting. It was necessary for the Working Group to have an extensive discussion of issues in the first few sessions before the first draft could be prepared. In due course the Working Group considered that there should be no attempt to change substantive law, and that a functional equivalence approach should be preferred. As a result, some initial articles which covered specific events in the lifecycle of the electronic transferable records were subsequently removed. Also, provisions dealing with the obligations of third-party service providers were also deleted. The work on the MLETR was completed in November 2016 and formally adopted by the Commission in July 2017.[15]

The Law Reform Commission for England and Wales released its report on Electronic Trade Documents in 2021.[16] The purpose of the consultation paper related to "documents used in trade whose functionality depends

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[5] MLEC art 17(3), emphasis added.
[6] Ibid, emphasis added.
[7] *Law 527 of 1999 of Columbia*; *Decree No 47 of 2008 of Guatemala*; *Electronic Commerce Act (2000)*, *Republic Act No 8792 of the Philippines*; and *Uniform Electronic Commerce Act 1999* (Canada) (in eleven of thirteen provinces and territories). Luca Castellani, *UNCITRAL Model Laws on Digital Trade: Electronic Transferable Records, Digital Identity and Trust Services* (Hart Publishing, 2025) 11–33. See also J Livermore and K Euarjai, 'Electronic Bills of Lading and Functional Equivalence' (1998) 2 *Journal of Information, Law and Technology* 1.
[8] *United Nations Convention on the Use of Electronic Communications in International Contracts 2005*, opened for signature 23 November 2005, 2898 UNTS (entered into force 1 March 2013). Typically abbreviated to ECC for the more condensed *Electronic Communications Convention*.
[9] Azerbaijan, Bahrain, Belize, Benin, Cameroon, Republic of the Congo, Dominican Republic, El Salvador, Fiji, Honduras, Iran, Kiribati, Mongolia, Montenegro, Paraguay, Philippines, the Russian Federation, Singapore, Sri Lanka, Thailand and Tuvalu.
[10] The Central African Republic, China, Colombia, Iran, Lebanon, Madagascar, Panama, the Republic of Korea, Saudi Arabia, Senegal, and Sierra Leone.
[11] Australia and Mauritius. The United States has prepared legislation. Canada has prepared uniform legislation which has been enacted by Ontario and Saskatchewan. In Australia, all states and territories and the Commonwealth have passed amending legislation to conform to the ECC.
[12] 'Explanatory note by the UNCITRAL secretariat on the United Nations Convention on the Use of Electronic Communications in International Contracts' para 7 <https://cisg-online.org/files/commentfiles/uncitral_secretariat_explanatory_note_on_the_unecic_2007.pdf>.
[13] The author was an invited speaker at this colloquium, on the topic, "Electronic Letters of Credit".
[14] See Castellani, *UNCITRAL Model Laws on Digital Trade* (n 7) 35.
[15] Alan Davidson, 'Implementation and Implications of the UNCITRAL Model Law on Electronic Transferable Records in Trade Finance' in Christopher Hare and Dora Neo (eds), *Trade Finance - Technology, Innovation and Documentary Credits* (Oxford University Press, 2021) 217.
[16] 'Digital Assets: Electronic Trade Documents – A Consultation Paper' (2021) Law Reform Commission Consultation Paper No 254.

on their being possessed as a matter of law".[17] The consultation paper noted that international trade was worth £1.153 trillion to the UK in 2021, and recognised that electronic versions of documentary instruments "could lead to significant cost savings and efficiencies, together with improvements in information management and security".[18] Hence the ETDA was proposed with parallel goals to that of MLETR. The Law Reform Commission stated:

> Our proposals have therefore been developed with a keen awareness of the MLETR, aligning with it where that is possible, and integrating both its spirit and objectives into the particularities of the law of England and Wales.[19]

The MLETR has been enacted in Bahrain, Belize, France, Germany, Kiribati, Mauritius (with respect to bills of exchange only), Mexico, Papua New Guinea, Paraguay, Singapore, Timor Leste and the United Arab Emirates (for the Abu Dhabi Global Market). China has legislation influenced by the MLETR and the principles on which it is based with respect to bills of lading. UNCITRAL states for both the Marshall Islands and the United Kingdom that: their "legislation is influenced by the Model Law and the principles on which it is based." Several nations are well advanced in proceeding to the adoption of the MLETR: Australia, Thailand and Japan.[20] In addition many international trade agreements have recommended the implementation of the MLETR to its members. These include the G7 declaration; WTO JSI WTO Joint Statement Initiative on E-commerce; AAEC - ASEAN Agreement on Electronic Commerce; RCEP - Regional Comprehensive Economic Partnership Agreement; DEPA - Digital Economy Partnership Agreement; CPTA - UN Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific; SADEA - Singapore Australia Digital Economy Agreement; and CPTPP - Comprehensive Progressive Trans-Pacific Partnership Agreement.[21]

The first document use of an electronic Bills of Lading using law based on MLETR arose in 2021, where an electronic bill of lading was issued pursuant to Singapore law and covering shipments from Australia to China.[22]

3. General Overview of Necessary Elements

The MLETR and ETDA employ a number of key concepts and 'elements' to achieve their stated aims. These may be summarised as the elements set out in Table A. The key elements are broadly comparable and will be considered in more detail in the following sections of this paper.

Table A - Overview Comparing Elements of the MLETR and ETDA.[23]

MLETR	ETDA
Must have the elements of: 1. Electronic Record 2. Contains required information of paper equivalent 3. Reliable method 4. To identify the Electronic Record as the ETR 5. Capable of exclusive control from creation to ceases to have effect or validity 6. Retains integrity of the Electronic Record (in Art10(2))[24]	Must have elements of: 1. Information in electronic form 2. If contained in a document in paper form, would lead to the document being a paper trade document 3. Reliable system 4. The information, together with any other information constitutes an ETD 5. Demonstrates control where it is not possible for more than one person to exercise control 6. Integrity issues dealt with (in S 2)

[17] Ibid [2.1]
[18] Ibid [1.4].
[19] Ibid [2.68]. Comparisons made at paras – 3.82, 4.29 etc,
[20] See 'MLETR Tracker - Economic and Social Commission for Asia and the Pacific (ESCAP): Cross-Border Paperless Trade Database' (Web Page) <https://www.digitalizetrade.org/mletr>.
[21] APEC Report: *A Path to Paperless Trade: Analysing the Legal Gaps and Economic Benefit of Adopting or Maintaining a Legal Framework that Takes into Account the UNCITRAL Model Law on Electronic Transferable Records (MLETR)*, Committee on Trade and Investment (CTI), 2025 <https://www.apec.org/docs/default-source/publications/2025/2/225_cti_paperless-trade.pdf?sfvrsn=d5779b94_1>.
[22] essDOC, 'essDOCS enables first ever electronic Bill of Lading transaction under Singapore Law' (Blog Post) <https://www.essdocs.com/blog/essdocs-enables-first-electronic-bill-lading-transaction-singapore-law>
[23] ETR and ETD in the Table A stand for Electronic Transferable Record and Electronic Trade Document respectively.
[24] Note that unless otherwise specified, references with "articles" will be to the MLETR and that references with "sections" will be to the ETDA.

3.1. Underlying Instrument

The underlying target instrument is given the generic descriptor of "Transferable document or instrument" in the MLETR[25] and "Paper trade document" in the ETDA. It should be observed that the MLETR has a general definition to cover a broad range of instruments, whereas the ETDA is relatively narrower in its potential application. The respective definitions are:

Transferable document or instrument

> … means a document or instrument issued on paper that entitles the holder to claim the performance of the obligation indicated in the document or instrument and to transfer the right to performance of the obligation indicated in the document or instrument through the transfer of that document or instrument. (Art 2)

Paper trade document

> A document is a "paper trade document" for the purposes of this Act if—
> (a) it is in paper form,
> (b) it is a document of a type commonly used in at least one part of the United Kingdom in connection with—
> (i) trade in or transport of goods, or
> (ii) financing such trade or transport, and
> (c) possession of the document is required as a matter of law or commercial custom, usage or practice for a person to claim performance of an obligation. (Section 1(1))

The MLETR has a broader application referring to "claim for performance of the obligation indicated in the document of instrument, including the right to transfer those rights". In contrast, the ETDA concept of the relevant instrument requires three distinct elements, each considered below.

3.1.1. First Element – Paper Form

The *first element* – "paper form" - duplicates the MLETR provision "issued on paper".

3.1.2. Second Element – Commonly Used in the UK

The *second element* requires that the document is "of a type commonly used in at least one part of the United Kingdom".

This requirement is unduly restrictive. The question must be asked whether there are other instruments used in trade or transport which are not used, or not commonly used in the United Kingdom. These may arise from Islamic law, such as the Sukuk, Jewish Law (Halakha), Customary Law, or one of the various forms of Civil Law. If so, the ETDA does not provide functional equivalence for those instruments. This may be appropriate for a domestic transaction within the UK but is undesirable for the purposes of uniformity and harmonisation in international trade.

Regarding the purpose of this restriction, the *UK Commentary on Sections of the Act* states:

> 20. Section 1(1)(b) requires the document to be of a type commonly used in connection with trade in or transport of goods, or financing such trade or transport of goods. The purpose of this section is to narrow the ambit of the documents that fall within the scope of the Act. Its purpose is to exclude documents not of a type commonly used in connection with trade in or transport of goods (or financing thereof) but which may otherwise fall within the scope of the Act because they satisfy the remaining requirements in section 1. To provide certainty and clarity, and to prevent potential arguments that a broader range of documents fall within the scope of the Act (such as stock transfer

[25] Note that the term 'transferable document or instrument' is used in the law of the United States, with transferable instruments referring to money, and transferable documents referring to goods: UNCITRAL, 'Legal Issues Relating to the Use of Electronic Transferable Records – Proposal by the Governments of Colombia, Spain and the United States' (3 August 2012) UN Doc A/CN 9/WG IV/WP 119, paras 1–3.

> forms, provisional allotment letters and other documents routinely used in financial or money markets) the Act is limited to documents of a type commonly used in connection with trade. *In addition*, the document need only be commonly used in trade in at least one part of the United Kingdom to satisfy section 1(1)(b). This wording prevents the situation from arising whereby a document is of a type commonly used in trade in England and Wales, for example, but not in Scotland (and would otherwise fall outside the scope of the Act).[26]

However, the Commentary appears to be at odds with the actual text of the ETDA. Section 1(1) of the ETDA states: 'a document of a type commonly used in at least one part of the United Kingdom in connection with' trade. There are clearly two notions that are linked, namely the notion of 'common trade usage' and the 'regionality' of the use.

With respect to the drafters, the Commentary in fact spuriously separates the notions of "commonly used … in connection with (trade)" and "in at least one part of the United Kingdom". In the ETDA text, the latter phrase is intentionally placed between "commonly used" and "in connection with". The first four sentences of the above paragraph of the Commentary explain that the purpose is to exclude certain instruments that are not *trade* instruments and it provides examples. The fifth sentence commences with: "*In addition* …', as if it is a separate notion, explaining that "the document need only be commonly used in trade in at least one part of the UK" would suffice, apparently overcoming a potential jurisdiction problem with Scotland. However, the section itself is quite clear and unambiguous; that is the notions are inseparable and should not be interpreted independently.

Indeed, the stated restriction, that is viewing them as separate requirements as the Commentary seems to do, impacts the applicability of the ETDA, and by extension the principle of functional equivalence to both UK and international traders. Consider the following case examples.

> ***Case 1*** - if a UK importer or exporter deals with a corresponding overseas exporter or importer who wishes to use a document which is not 'a document of a type commonly used in at least one part of the United Kingdom", then, where UK law applies, the ETDA will not apply to that instrument. The result would be the *status quo*, that a paper document is required by UK law.
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> ***Case 2*** - if a non-UK importer or exporter deals with a corresponding non-UK export or importer, and the contract provides that English law applies, and the parties wish to use a document which is not "a document of a type commonly used in at least one part of the United Kingdom" then, the ETDA will not apply to that instrument, with the same result as in Case 1.
>
> ***Case 3*** – where a new instrument is created or comes into use in international trade by commercial parties which would fit the description of Section 1(1)(c), the ETDA similarly will not apply.

In all three cases should the parties use an electronic instrument (ETR or ETD) such usage may well be successfully challenged in law.

3.1.3. Second Element – Commonly Used in Connection with Trade

The second element also requires that it must be commonly used in connection with trade or transport of goods, or financing of the same. Why does this limitation exist? Does this mean that the Act does not apply to documents where a person claims a performance of an obligation *outside of the trade or transport of goods?*

Consider the following instruments listed in Section 1(2).

> 1(2) The following are examples of documents that are commonly used as mentioned in subsection (1)(b)—
> (a) a bill of exchange;
> (b) a promissory note;
> (c) a bill of lading;
> (d) a ship's delivery order;

[26] Paragraph 20 of the Comments on the Sections of the Act (emphasis added) <https://www.legislation.gov.uk/ukpga/2023/38/notes/division/6/index.htm>

(e) a warehouse receipt;
(f) a mate's receipt;
(g) a marine insurance policy;
(h) a cargo insurance certificate.

This is a deeming provision, so that even if, for example, a marine insurance policy is used outside of trade or finance it is still regarded as a "paper trade document". However, does the provision apply to all marine insurance policies all the time, or only when used in trade and finance? That is, there is a possible interpretation that the ETDA does not apply to an instrument that is not *used* in trade or finance, such as the storage of goods. If insured goods are stored in a warehouse and the owner wishes to transfer the benefit of the insurance to another, as a gift, or as a present, or in repayment of a debt, and hence not trade, then it could be suggested that the ETDA does not apply to that instrument. In contrast, the MLETR provisions are much clearer and clearly covers such a situation.

It is noted that the ETDA is not an exhaustive list, as it is a list of "examples". However, this interpretive leeway does not shed light on non-trade uses and suggests that the ETDA is much more limiting than the MLETR.

Separately, should specific examples be provided in potential legislation, or should the generic description which is provided in Article 2 suffice? In the *Consultation to inform options for implementing the Model Law on Electronic Transferable Records in Australia*, one question raised other potential instruments including:

(b) cheques…
(d) consignment notes …
(g) transferable insurance certificates, like marine insurance policies and cargo insurance certificates
(h) air waybills
(i) letters of credit…
(j) dock warrants
(k) dock receipts…
(l) ships delivery orders
(n) wharfinger's certificates
(o) warehouse-keeper's certificates.[27]

It is suggested that to this list could be added the use of Bonds and Certificates of Deposit.[28]

The third element of the ETDA's concept of the relevant document involves performance of obligations. The language in Section 1 (c) "to claim performance of an obligation", replicates the MLETR expression "to claim the performance of the obligation".

4. Operative Provisions and Concepts

Article 10 has the heading "Transferable documents or instruments". Section 2 ETDA has the heading 'Definition of "Electronic Trade Document"'. However, Section 2 deals functionally with much more, including the provision of and definition of "reliable system", and the concepts of "control" and "transfer". Article 10 and section 2 contain the operative mechanism for both the ETDA and the MLETR, and are compared and commented on below.

4.1. Substantive Law

Article 10(a) and Section 2(1) both seek to recognise the necessity to comply with applicable substantive law which applies to the paper-based document of instrument (bill of lading, bill of exchange etc). In this regard Article 1(2) provides:

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[27] Consultation to inform options for implementing the Model Law on Electronic Transferable Records in Australia, Page 8 <https://consultations.ag.gov.au/international-relations/mletr/user_uploads/mletr_consultation-paper.pdf>. Instruments which overlap with the ETDA have been omitted, that is: (a) bills of exchange, (c) promissory notes, (e) bills of lading, (f) warehouse receipts, and (m) mate's receipts.
[28] See also my submissions to the Consultation, (Question 2) <https://consultations.ag.gov.au/international-relations/mletr/consultation/download_public_attachment?sqId=pasted-question-1725408112.15-65258-1725408112.69-8647&uuId=1009984150>

> Other than as provided for in this Law, nothing in this Law affects the application to an electronic transferable record of any rule of law governing a transferable document or instrument including any rule of law applicable to consumer protection.

This is also made clear in the Explanatory Note to the MLETR.[29] Paragraph 10 provides: '… The Model Law does not affect the medium-neutral substantive law applicable to electronic transferable records'.

Paragraph 15: '… the Working Group reached the general understanding that its work should be guided by the principles of functional equivalence and technological neutrality, and should not deal with matters governed by substantive law'.

Paragraph 20: 'The Model Law focuses on the transferability of the record and not on its negotiability on the understanding that negotiability relates to the underlying rights of the holder of the instrument, which fall under substantive law'.

Paragraph 90 referring specifically to article 10(1): 'The inclusion in the electronic transferable record of the information required to be contained in a transferable document or instrument should allow to determine the substantive law applicable to that electronic transferable record …'

Similarly, the Explanatory Memorandum to the ETDA provides:

Paragraph 68: The sections 'are intended to ensure that electronic and paper trade documents have equivalence in all respects, are dealt with in the same way, and that the same substantive law applies to "trade documents" whether in paper or electronic form'.

Section 2(1) provides implicit recognition, requiring that "information" in the paper form would be contained in the electronic form.

4.2. Electronic Records and Form

The MLETR contains the information required for the paper equivalent. An "electronic record' is defined Article 2:

> *'Electronic record' mean*s information generated, communicated, received or stored by electronic means, including, where appropriate, all information logically associated with or otherwise linked together so as to become part of the record, whether generated contemporaneously or not.

This definition takes into account the potential addition of metadata which may arise on the transfer of the electronic instrument, but which in no way would impact the operation of the instrument or document under substantive law.

In contrast, the ETDA provides no definition of "electronic form" nor for the notion of the underlying 'electronic record' which is to become the "electronic trade document". There is no clarity on the meaning of electronic form.

> Section 2(1) This section applies where information in *electronic form* is information that, if contained in a document in paper form, would lead to the document being a paper trade document.[30]

4.3. Constituting and Deeming

Both the ETDA and MLETR provide a mechanism by which a document falls within its operation, as set out below in Table B.

[29] See generally, Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records (MLETR) <https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mletr_ebook_e.pdf>
[30] (Emphasis added)

Table B - Deeming and Constitutive Provisions

MLETR	ETDA
10(b) A reliable method is used:	2(2) … if a reliable system is used … :
(i) to identify that electronic record as *the* electronic transferable record (Emphasis added)	2(2) The *information*, together with any other information with which it is logically associated that is also in *electronic form*, *constitutes* an "electronic trade document" for the purposes of this Act … to (a) identify the document so that it can be distinguished from any *copies*, (Emphasis added)
(ii) to render that electronic record capable of being subject to control from its creation until it ceases to have any effect or validity	(3) For the purposes of subsection (2) - (a) a person exercises control of a document when the person uses, transfers or otherwise disposes of the document (whether or not the person has a legal right to do so) (Brackets supplied)

Under the MLETR, the key word is "the" – so that an "electronic record" becomes an 'electronic transferrable record". The Working Group had included, in earlier drafts, descriptors before electronic transferable record such as "operative' and 'authoritative'. However, it concluded that the expression "electronic transferable record" would suffice, that is, once the "electronic record" constitutes an "electronic transferable record", no further descriptor would be necessary, other than the word "the".

In contrast, the ETDA uses the terms 'constitutes' to deem the "information" in "electronic form" to be the "electronic trade document".

Separately, section 2(2)(a) uses the word "copies". This term is ambiguous when used in reference to electronic documents. The word "copies" can have at least two meanings in this context. It could mean information copies of the original, for example, as a parallel with photocopies for paper Bills of Lading, which would not be regarded as an operative instrument. Alternatively, it could envisage, for example, the position where there may be more than one original, as often occurs with Bills of Lading where they are often issued as three originals. Each Bill of Lading is typically labelled, "1st of three originals", "2nd of three originals" etc. The dilemma in using the word "copies" in relation to electronic commence remains unalleviated.

After extensive debate and discussions in the UNCITRAL Working Group, it was determined not to use expressions such as "unique", "uniqueness" and "singularity" because substantive law recognises that instruments, such as Bills of Lading, can have multiple originals. The result (after several iterations) was simply: "To identify that electronic record as *the* electronic transferable record". The intention was to retain applicable substantive law.

The ambiguity in Section 2(2)(a) could be avoided by referring to other "originals" or to "non-operative copies"; however, the approach taken by the MLETR in Article 10(1)(b)(i) would suffice.

Finally, the ETDA does not have a provision equating to the life cycle of the instrument.

4.4. Integrity

In the MLETR, Integrity is defined is Article 10(2) and relates to changes to the document, and to the duration of the change. This is shown in Table C with references to an "authorized change" and "apart from any change which arises in the normal course of communication, storage and display" such as metadata.

In contrast, the ETDA Section 2(2)(b) - (d) uses language that relates to a similar concept and concern as 'integrity. This relates to changes to the document using the expression "unauthorised alteration". In the ETDA, the word "integrity" is used once (Section 2(2(5)(b)) as part of the definition of a reliable system.

Section 2(2)(c) refers to one person; note that s2(3)(b) provides ‘persons acting jointly are to be treated as one person’. This could be improved by referring to a controller or holder. Article 10 does not refer to the “holder”, however, Article 11 refers to the “person in control”.

Table C - Integrity

MLETR	ETDA
(iii) To retain the *integrity* of that electronic record 10(2) The criterion for assessing integrity shall be whether information contained in the electronic transferable record, including any *authorized change* that arises from its *creation* until it *ceases to have any effect or validity*, has *remained complete and unaltered* apart from any change which arises in the normal course of communication, storage and display (Emphasis added)	2(2) (b) protect the document against *unauthorised alteration*, (c) secure that it is not possible for more than *one person* to exercise control of the document at any one time, (d) allow any person who is able to exercise control of the document to demonstrate that the person is able to do so, and … (Emphasis added)

4.5. Control and Transfer

Table D sets out key provisions dealing with the control, and the transfer of such control, of the relevant documents.

In relation to control, the MLETR uses the expression “exclusive control”. In contrast, the ETDA provides for “control” when defining an “electronic transferable document”, specifically Sections 2(2)(c) and (d), and (3).

Notably, Section (3)(c) instead of “exclusive control” uses the expression: “not possible for more than one person to exercise control”. This results in a substantive difference – that is, *actual exclusive control* under MLETR in comparison with *possible control* demonstrated under ETDA. This difference is not insignificant, given the latter concept is significantly broader.

The ETDA does not explain how control may be “demonstrated” as required by Section 2(2)(d). Section 2(3) explains that using, transferring or disposing is an exercise of control, although it may be possible to read this as also the means through which an exercise of control is demonstrated. The ETDA is unclear in this regard.

In relation to the transfer of control, as set out in the second column of Table D, Article 11(2) provides for functional equivalence. The Article considers any requirement or permission under law to transfer possession to be met if there is a transfer of control over an electronic transferable record. This functional equivalence could also refer to transfer of “exclusive control” to be consistent with Article 11(1)(b). In contrast, the Section 2(2)(e) specifies that the transferor must be “deprived” of control, whereas this is implied in Article 11. MLETR uses the expression “where the law requires or permits’ to provide certainty and consistency with other UNCITRAL texts.

Table D - Control and Transfer

MLETR	ETDA
11(1) Where the law requires or permits the possession of a transferable document or instrument, that requirement is met with respect to an electronic transferable record if a reliable method is used: (a) To establish *exclusive control* of that electronic transferable record by a person; and (b) To identify that person as the person in *control*. (Emphasis added)	2(2) The information, together with any other information with which it is logically associated that is also in electronic form, constitutes an “electronic trade document” for the purposes of this Act if a reliable system is used to— … (c) secure that it is not possible for more than one person to exercise *control* of the document at any one time, (d) allow any person who is able to exercise *control* of the document to demonstrate that the person is able to do so, and (3) For the purposes of subsection (2)—

	(a) a person exercises *control* of a document when the person uses, *transfers or otherwise disposes* of the document (whether or not the person has a legal right to do so), and (b) persons acting jointly are to be treated as one person. (Emphases added, brackets supplied)
11(2) Where the law requires or permits *transfer* of possession of a transferable document or instrument, that requirement is met with respect to an electronic transferable record through the *transfer of control* over the electronic transferable record. (Emphasis added)	2(2) The information, together with any other information with which it is logically associated that is also in electronic form, constitutes an "electronic trade document" for the purposes of this Act if a reliable system is used to … (e) secure that a *transfer* of the document has effect to deprive any person who was able to exercise *control* of the document immediately before the *transfer* of the ability to do so (unless the person is able to exercise *control* by virtue of being a transferee). (Emphasis added)

4.6. Reliability

Both the MLETR and ETDA provide for a reliability standard applicable to the electronic version. The MLETR employs the expression 'reliability method' and the ETDA uses "reliability system". The MLETR and the ETDA both have seven non-exhaustive factors. The factors set out in the ETDA are based on factors set out in the MLETR, however, with divergences. The requirements for reliability are set out in Table E and matters that may be considered in relation to these requirements are further compared in Table F.

Table E - Reliability Method and System

MLETR	ETDA
Art 12 - For the purposes of articles 9, 10, 11, 13, 16, 17 and 18, the *method referred* to shall be: (a) As reliable as appropriate for the fulfilment of the function for which the method is being used, in the light of all relevant circumstances, which may include: (Emphasis added)	Section 2(5) When determining whether a *system is reliable* for the purposes of subsection (2), the matters that may be taken into account include— (Emphasis added)

In relation to the requirements for reliability, in the MLETR, the concept of "reliable method" is used for signature, transfer, identification, control, indication of time and place, amendments, replacement of paper with an electronic version and vice versa. It also draws on similar concepts incorporated in other UNICTRAL texts, such as the *Electronic Communication Convention*.[31] In contrast, the ETDA applies an absolute standard, albeit for the purposes of subsection (2), but it only applies this to the "electronic trade document" per se.

Both the MLETR and the ETDA provide for seven non-exhaustive considerations in determining what is relevant. These are set out below, along with comments for each factor.

> Art 12(a)(i) Any operational rules *relevant* to the assessment of reliability;
>
> S 2(5)(a) any rules of the system *that apply to* its operation;

[31] *Electronic Communication Convention* (n 8) art 3.

It is not clear whether the drafting choice in the ETDA in use of the phrase "that apply to' is intended to signal a narrower scope than "relevant" operational rules.

> Art 12(a)(ii) The *assurance* of data integrity;
>
> S 2(5)(b) any *measures taken* to secure the integrity of information held on the system;

There is a vast difference between "assurance" and "measures taken". The latter is an efforts-based determination, rather than an outcome-based measure.

The term "data" used in the MLETR is synonymous with 'information".

> Art 12(a)(iii) The *ability to prevent* unauthorized access to and use of the system;
>
> S 2(5)(c) any *measures taken to prevent* unauthorised access to and use of the system;

Contrasting concepts of "ability to prevent" versus "measures taken to prevent" are used. It is not clear whether the ETDA applies in the past tense only in referring to measure that a "taken" to prevent the unauthorised access and use.

> Art 12(a)(iv) The security of hardware and software;
>
> S 2(5)(d) the security of the hardware and software used *by the system*;

It is unclear whether reference in the ETDA to "by the system" refers to the hardware system or the reliability system in the ETDA.

> Art 12(a)(v) The regularity and extent of audit by an independent body;
>
> S 2(5)(e) the regularity of and extent of any audit *of the system* by an independent body;

Similarly, it is unclear whether "of the system" refers to the hardware system or the reliability system in the ETDA.

> Art 12(a)(vi) The existence of a *declaration* by a supervisory body, an accreditation body or a voluntary scheme *regarding the reliability of the method*;
>
> S 2(5)(f) any *assessment of the reliability of the system* made by a body with supervisory or regulatory functions;

Reference in the MLETR to a 'declaration … regarding the reliability of the method' appears to have been replaced in the ETDA by reference to "assessment of the reliability of the system'. The ETDA provision does not include a reference to an accreditation body in this paragraph, as the MLETR does, but assessments of a "voluntary scheme" are addressed separately in Section 2(5)(g).

> Art 12(a)(vii) Any applicable industry standard; or
>
> S 2(5)(g) the provisions of any voluntary scheme or industry standard that apply in relation to the system.

As mentioned, the ETDA paragraph mentions "voluntary scheme", otherwise the provisions are comparable.

> Art 12(b) Proven in fact to have fulfilled the function by itself or together with further evidence.

The MLETR includes this 'safety valve test" which may be utilised in place of the reliability method. The ETDA provides no *ex post* equivalent test. The concern is that a legal argument could be constructed that notwithstanding that the method *in fact* achieved the desired function and outcome, it may nevertheless have not passed the reliability standard provided for in the text. This provision is described as a "safety clause" in the Explanatory Note to the MLETR in paragraphs 136 and 137.[32] Its purpose is intended to prevent "frivolous litigation by

[32] Explanatory Note to MLETR (n 29) paras 136 and 137.

validating methods that have in fact achieved their function regardless of any assessment of their reliability". Article 12(b) refers to the fulfilment of the specific function under dispute and does not aim at 'predicting future reliability based on past performance of the method'.[33] The Explanatory Note points out that in practice, the operation of this safety clause, that the method used has achieved the function pursued, 'will prevent any discussion on the assessment of its reliability according to subparagraph (a)'.[34] This effectively provides that reliability can be assessed retrospectively (*ex post*) in a particular case. This concept originates from the signature provision in sub-article 9(3) of the ECC.[35] In Australia, between 2010 and 2013, the Commonwealth, states and territories amended all nine of its Electronic Transactions Acts to include this "safety clause" provision in the sections dealing with signatures.[36]

4.7. Possession vs Control

Fundamentally, the general law deals with the physical possession of paper documents or instruments with certain associated rights or obligations. Possession is a notion developed by *lex mercatoria* and incorporated into legislation, such that, a person who possesses a particular document or instrument may be said to own the corresponding rights or obligations by virtue of that possession. Table F compares the "deeming" provisions of the MLER and the ETDA.

Table F – Deeming Provision for Possession and Control

MLETR	ETDA
10(1) Where the law requires a transferable document or instrument, *that requirement is met* by an electronic record if … 11(1) Where the law requires or permits the possession of a transferable document or instrument, *that requirement is met* with …	2(2) The information, together with any other information with which it is logically associated that is also in electronic form, *constitutes* an "electronic trade document" for the purposes of this Act if …

Both the MLETR and ETDA use the notion of control of the electronic transferable record (ETR) or electronic trade document (ETD) as being functionally equivalent to possession. Control is not necessarily the same as possession of a paper document. Accordingly, both the MLETR and the ETDA deem control of the ETR or ETD as satisfying the requirements of the paper document with regard to possession. The standards and requirements for the control and the transfer of that control may be regarded (using the UK Commission expression above) as "gateway criteria". The result is largely identical. In both texts, following each of these deeming provisions, are the relevant criteria that are to be met to establish control.

However, does the ETDA conflate the concepts of control and possession? It has been suggested that MLETR uses "control" as a functionally equivalent notion, whilst the ETDA uses the expression "possession" of the electronic trade documents directly in the text. However, the ETDA uses the words "possess" and "possession' once only in an attempt to express the intention that an ETD is associated with possession. This appears in section 3(1):

> S3(1) A person may *possess*, indorse and part with *possession* of an electronic trade document.

However, how this "possession" is achieved in section 3 is not directly spelt out. Instead, the reader must refer back to section 2 where the notion of "control" is used to realise the functional equivalence of possession. Notwithstanding the gymnastics involved, the ETDA achieves its aim of functional equivalence for the ETD. The

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[33] Ibid para 136.
[34] Ibid para 137. See also 'Digital Assets: Electronic Trade Documents – A Consultation Paper' (n 16) [4.44].
[35] See Explanatory note by the UNCITRAL secretariat on the ECC (n 13) paras 163 and 164.
[36] See *Electronic Transactions Act 1999* (Cth) s 10; *Electronic Transactions Act 2000* (NSW) s 9; *Electronic Transactions (Queensland) Act 2001* (Qld) ss 14-15; *Electronic Communications Act 2000* (SA) s 9; *Electronic Transactions Act 2000* (Tas) s 7; *Electronic Transactions (Victoria) Act 2000* (Vic) s 9; *Electronic Transaction Act 2011* (WA) s 19, *Electronic Transactions Act 2001* (ACT) s 9, *Electronic Transactions (Northern Territory) Act 2000* (NT) s 9.

MLETR states quite directly in a single provision, Article 11, that where the law requires or permits *possession,* that requirement is met with "exclusive control".

4.8. Party Autonomy

Both the MLETR and the ETDA provide for contracting parties to opt-out of certain provisions. The MLETR also contains the following footnote to the relevant opt-out provision:

> "The enacting jurisdiction may consider which provisions of the Model Law, if any, the parties may derogate from or vary by agreement."

Section 5 of the ETDA is headed "Exceptions" and Section 5(1) provides for party autonomy.

Table G - Party Autonomy

MLETR	ETDA
Art 4(1) The parties may derogate from or vary by agreement the following provisions of this Law: […] (2) Such an agreement does not affect the rights of any person that is not a party to that agreement.	S5(1) If an intention that section 3 should not apply in relation to an electronic trade document appears in, or can reasonably be inferred from, the document or terms that have effect in relation to the document— (a) that section does not apply in relation to the document, and (b) section 4 also does not apply in relation to it.

4.9. Replacement

Both the MLETR and the ETDA provide for the replacement of a paper document with an electronic document and vice versa. These provisions are set out below in Table H.

Table H - Replacement

MLETR	ETDA
Article 17(1) An electronic transferable record may replace a transferable document or instrument if a reliable method for the change of medium is used. (2) For the change of medium to take effect, a statement indicating a change of medium shall be inserted in the electronic transferable record. (3) Upon issuance of the electronic transferable record in accordance with paragraphs 1 and 2, the transferable document or instrument shall be made inoperative and ceases to have any effect or validity. (4) A change of medium in accordance with paragraphs 1 and 2 shall not affect the rights and obligations of the parties.	Section 4(1) A paper trade document may be converted into an electronic trade document, and an electronic trade document may be converted into a paper trade document, if (and only if)— (a) a statement that the document has been converted is included in the document in its new form, and (b) any contractual or other requirements relating to the conversion of the document are complied with. (2) Where a document is converted in accordance with subsection (1)— (a) the document in its old form ceases to have effect, and (b) all rights and liabilities relating to the document continue to have effect in relation to the document in its new form.

Notably, the MLETR use the "reliability standard" from Article 12, set out above. The replacement provisions in Article 17(2) requires a statement of the change to an electronic formatted to be inserted in the electronic medium and provides that the former document is made inoperative and such a document ceases to have any effect or validity.

Consistent with provisions already noted, Article 17(4) indicates that there is no change to substantive law.

Note that Article 18 is identical, except that the form is reversed in Article 18(1):

> A transferable document or instrument may replace an electronic transferable record if a reliable method for the change of medium is used.

Section 4(1)(a) of the ETDA, similarly, requires a statement of the conversion to be included in the new form. Section 4(2)(a) of the ETDA parallels Article 17(2), using the expression "ceases to have any effect" but it omits the words "inoperative" and "validity". The rationale for this omission is not clear.

4.10. Writing, Signature and Place of Business Provisions

The MLETR Articles 8 and 9 deals with the functional equivalence of writing and signature. Article 14 provides for the determination of the place of business. These provisions are unnecessary for jurisdictions that have previously enacted writing and signature provisions pursuant to the *Model Law of Electronic Commerce 1996* or the *United Nations Convention on the Use of Electronic Communications in International Contracts 2005*. However, the Working Group envisaged the provision where a jurisdiction had not previously enacted these fundamental notions, and so included Articles 8, 9 and 14 in the Model Law for those jurisdictions. The Working Group states in the Explanatory Note to the MLETR that

> 'it may also be the case that those functional equivalence provisions do not exist in a jurisdiction wishing to enact the Model Law. In that case, the adoption of articles 8 and 9 would address the legislative need'.[37]

No signature provision appears in the ETDA as it the UK electronic signature law appears elsewhere.[38] These provisions already appear in all nine Australian *Electronic Transaction Acts*.

4.11. International Interpretation

Article 3 is a standard provision for UNCITRAL texts. It is intended to draw the attention of national courts and other authorities to the fact that enactments of the Model Law should be interpreted with reference to their international origin and the need to promote their uniform interpretation in light of that origin. UNCITRAL regards this as a "key element".[39] Similar wording appears in several UNCITRAL texts, including in Article 3 of the UNCITRAL *Model Law on Electronic Commerce* and Article 4 of the UNCITRAL *Model Law on Electronic Signatures.* It was first introduced in Article 7 of the UN *Convention on the Limitation Period in the International Sale of Goods* (1974). To assist commercial parties and their lawyers in determining the interpretation of UNCITRAL texts in other jurisdiction, UNCITRAL has established a database known as *Case Law On UNCITRAL Texts*, otherwise known as CLOUT. This database. Established in 1988 includes contributions for 90 UN members states, and well as the European Union, the International Chamber of Commerce and the International Court of Arbitration. It reinforces the confidence in the consistent application of international trade law. The interpretation of the ETDA will most typically be by the Courts of the UK. Note that any other jurisdiction applying the ETDA, for example where two commercial parties outside the UK choose English law, is not obligated to follow UK decisions.

4.12. Endorsements

For the transfer of possession of *transferable documents of instrument*, or *paper trade documents*, the practice of the physical addition of an endorsement on the instrument is common and well established. Article 15 of the MLETR provides that where the law requires or permits the endorsements, that requirement is met for the ETR 'if the information required for the endorsement is included in the electronic transferable record and that information is compliant with the requirements set forth in articles 8 and 9'. Articles 8 and 9 provide the standards for writing and signature, which have been included in many nations' laws with the adoption of the *Model Law of Electronic Commerce 1996* or the *United Nations Convention on the Use of Electronic Communications in International Contracts 2005.*

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[37] Explanatory Note to MLETR (n 29) para 71.
[38] *Electronic Communications Act 2000* (UK) s 7.
[39] Explanatory Note to MLETR (n 29) paras 40-45.

The ETDA has no specific provision with regard to endorsements. However, two provisions would most likely infer the ability, capability and legality for endorsements by the person in control. First, Section 2(2)(d) refers the use of a reliable system to 'allow any person who is able to exercise control of the document to demonstrate that the person is able to do so'. The "demonstration of control" presumably includes, where applicable, endorsements, particularly given the nature and operation of the types of documents involved. Secondly, Section 2(3)(a) provides 'a person exercises control of a document when the person uses, transfers or otherwise disposes of the document'. Again, this presumably includes endorsements.

4.13. Non-Discrimination of Foreign Electronic Transferable Records

Article 19(1) of the MLETR provides:

> An electronic transferable record shall not be denied legal effect, validity or enforceability on the sole ground that it was issued or used abroad.

The ETDA does not include an equivalent provision. Indeed, it seems to provide for the opposite. As discussed in above in this paper, Section 1 of the ETDA, provides that a paper trade document for the purposes of the ETDA must be in paper form and must be 'a document of a type commonly used in at least one part of the United Kingdom in connection with' trade.

5. Conclusion

The overarching aim of the MLETR is *global harmonisation* with respect to transferable documents or instruments in an electronic format. The ETDA is intended to provide *UK Digitalisation* of paper trade documents. The MLETR provides a template designed for multiple jurisdictions and legal systems. The ETDA is national legislation. At this early stage, with virtually no judicial review, both generally achieve their purpose and have been used in practice.

The APEC Report on a pathway to paperless trade includes economic analyses which demonstrate and verify the savings and efficiencies international trade should MLETR be implemented and adopted and trade converts to a paperless form. [40] The Report talks of saving not just in the billions of dollars but more than 2 trillion US dollars over 10 years in APEC economies alone. Regretfully nations enacting alternative forms and wording jeopardise the benefit of all. Nations and commercial parties should be wary of the maxim: *Digital fragmentation slows development and generates further barriers*.

[40] APEC Report: *A Path to Paperless Trade* (n 21) 2.