

Legislating to facilitate the use of electronic transferable records: A case study

Reforming the law to facilitate the use of electronic bills of lading in the United Kingdom

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Documents of title, the bill of lading among them, have performed various essential practical functions in the commercial world for a number of centuries. Historically bills of lading, like many other documents of title, acquired their powers to transfer rights embodied in them through mercantile usage.¹ Many common law decisions regarding bills of exchange² and bills of lading,³ the most widely used documents of title in international trade transactions, refer to this origin. As far as bills of lading were concerned, this mercantile usage was transnational, that is, part of a mercantile law that transcended national boundaries, and for this reason the bill of lading was understood to be capable of achieving the same (or at least roughly similar) effects through its transfer in different jurisdictions across the world, which was of the essence if cross-border trade was to proceed smoothly. As such the emergence of the bill of lading responded precisely to commercial needs and became a tool which different countries' domestic laws eventually came to recognise as capable of achieving certain effects which the customs of merchants attributed to it.⁴

The usefulness of paper bills of lading has been called into question of late, however, the main problem being that due to the slowness of paper transactions, when the bill is used to deal in the goods while they are afloat, it will be delayed in reaching the final buyer.⁵ Thus the carrier is likely to have to deliver the goods in its absence⁶ rendering him potentially liable, under English law, in two ways to the rightful holder: under the

¹ Re recognition of mercantile usage by the common law courts see *Bechuanaland Exploration Co v London Trading Bank Ltd* [1898] 2 QB 658 and *Edelstein v Schuler & Co* [1902] 2 KB 144.

² See for example *Goodwin v Robarts* (1875) LR 10 Exch 337.

³ See for example *Lickbarrow v Mason* (1787) 2 TR 63, at 71 and (1794) 5 TR 683, at 685-6; *Barber v Meyerstein* (1869-70) LR 4 HL 317, at 326 and *Sanders Bros v Maclean & Co* (1883) 11 QBD 327 at 341.

⁴ See WP Bennett, *The history and present position of the bill of lading as a document of title to goods: being the Yorke Prize essay for the year 1913*, 1914, Cambridge University Press; CB Mc Laughlin 'The Evolution of the Ocean Bill of Lading' (1925-1926) 35 *Yale Law Journal* 548; MD Bools, *The Bill of Lading: A Document of Title to Goods – An Anglo-American Comparison*, 1997, LLP, London and W Twining, 'The Lex Maritima' Chapter 4 in T Carbonneau (ed.) *Lex Mercatoria and Arbitration*, 1998, Transnational Juris Publications.

⁵ There are various reasons why this might happen. For example, commodities cargoes are bought and sold several times while in transit, so documents have to travel down a string of intermediaries before they reach the final buyer.

⁶ The carrier will do this in order to avoid the costs of demurrage or warehousing, or, where there is a charterparty, he may have to do so because of a clause contained in it. The shipowner may be obliged to accept an indemnity provided by the charterer under the terms of the charterparty. See *Sucre Export SA v Northern River Shipping Ltd (The Sormovskiy 3068)* [1994] 2 Lloyd's Rep 266, esp. 272.

tort of conversion and for breach of the contract of carriage.⁷ The carrier would normally do this against the issue of a letter of indemnity, under which he would be indemnified for any losses incurred for delivering the cargo in the absence of the bill. This protection is only partly satisfactory however, as the enforceability of the indemnity may not be guaranteed,⁸ and even where it is enforceable, the ship may be arrested in the course of proceedings against the carrier by the rightful holder, and lengthy litigation may have to be undergone before the indemnity may be enforced.⁹ Because the speed of ships has increased while the processing of paper documentation has not, the bill of lading is failing satisfactorily to perform the functions for which it was originally developed.¹⁰

Many commentators have discussed the advantages that could be gained by dematerialisation of the bill of lading. The ones raised most often include cost-savings, speeding up of settlement of transactions, enhancement of traditional payment arrangements and enhanced security.¹¹ A few commentators also discuss particular advantages that may be gained in specific sectors such as container transport,¹² the retail trade¹³ or the oil trade.¹⁴ Another point that has been discussed on occasion is how potential future centralised systems could greatly expand the amount

⁷ In *Sze Hai Tong Bank v Rambler Cycle Co* [1959] AC 576, 586 Lord Denning held that '[i]t is perfectly clear law that a shipowner who delivers without production of the bill of lading does so at his peril. The contract is to deliver, on production of the bill of lading, to the person entitled under the bill of lading.... The shipping company did not deliver the goods to any such person. They are therefore liable for breach of contract unless there is some term in the bill of lading protecting them. And they delivered the goods, without production of the bill of lading, to a person who was not entitled to receive them. They are therefore liable in conversion unless likewise so protected.' See also *Voss v APL Co Pte Ltd* [2002] 2 Lloyd's Rep 707 (CA (Sing)); *Sucre Export SA v Northern River Shipping Ltd (The Sormovskiy 3068)* [1994] 2 Lloyd's Rep. 266; *Kuwait Petroleum Corp v I&D Oil Carriers Ltd (The Houda)* [1994] 2 Lloyd's Rep. 541; *Chhabra Corp v Jag Shakti (Owners) (The Jag Shakti)* [1986] AC 337; *Bristol and West of England Bank v Midland Railway Co* [1891] 2 QB 653; *London Joint Stock Bank Ltd v British Amsterdam Maritime Agency Ltd* (1910) 16 Com Cas 102; *Glyn Mills Currie & Co v East and West India Dock Co* (1882) 7 App Cas 591.

⁸ See for example *China Shipping Development Co Ltd v State Bank of Saurashtra* [2001] 2 Lloyd's Rep. 691. For the problems banks face in issuing letters of indemnity, see JP Mattout 'Letters of Indemnity in Shipping Transactions: Legal Aspects', (1991) 6 Journal of International Banking Law, 320.

⁹ See for example *The 'Stone Gemini'* [1999] 2 Lloyd's Rep. 255.

¹⁰ See N Gaskell, *Bills of Lading: Law and Contracts*, (Maritime and Transport Law Library), 2000, LLP, paragraph 1.54: 'Oil cargoes may commonly be sold 20 times on the spot market during a voyage from the Persian Gulf to Europe and many problems have occurred when the bills of lading are still stuck in the banking system while the vessel has arrived at the discharge port.' See also P Todd 'Dematerialisation of Shipping Documents' Chapter 3 in C Reed, I Walden and L Edgar (eds), *Cross-Border Electronic Banking: Challenges and Opportunities*, 2000, Informa Business Publishing, 67: 'for many cargoes, and in particular the carriage of bulk oil, the paper bill of lading [is] simply no longer serving its original function.' See also *ibid*, 71-73.

¹¹ RB Kelly 'The CMI charts a course on the sea of electronic data interchange: Rules for Electronic Bills of Lading' [1991-1992] *Tulane Maritime Law Journal* 349; P Mallon, 'The Legal Implications of Electronic Commerce in International Trade', (1997) 8 (October/November) *Computers and Law*, 24; R Merges and G Reynolds 'Towards a computerized system for negotiating ocean bills of lading' (1986) 6 *Journal of Law and Commerce* 36; Todd, 2000; AN Yiannopoulos, 'General Report to the XIVth International Congress of Comparative Law,' Chapter 1 in AN Yiannopoulos (ed.) *Ocean Bills of Lading: Traditional Forms, Substitutes, and EDI Systems*, 1995, Kluwer Law International, 17-19.

¹² See for example D Faber 'The Commercial Importance of EDI' (1995) 6 *Computers and Law*, 15 and J Gauthier 'The Broader Context of Electronic Commerce' [1997] *European Transport Law* 693.

¹³ E.g. just-in-time inventory systems: Faber, 1995.

¹⁴ Todd, 2000.

of information about tradable cargo available to the market, thereby increasing the number of transactions that take place in practice.¹⁵

What does it take to dematerialise the legal concept of a bill of lading? In order to answer this question it is important to understand clearly the essential features of this document of title. Like any other document of title, the use of a bill of lading has effects both for the purposes of contract law and for those of property law. As far as contract law is concerned, the consequences of issue or transfer of a document of title are linked to contractual performance between issuer and holder and/or between transferor and transferee. What constitutes performance is determined by the terms of the relevant agreement and therefore the question that arises is whether the agreement applies between the parties to the dispute. Possession of a document of title, such as a bill of lading, may indicate that the holder is a party to the relevant agreement and has the right to enforce it.

Under English Law, derivative rights and liabilities under contracts of carriage concluded on or after 16th September 1992 are governed by the Carriage of Goods by Sea Act 1992 (hereinafter COGSA 1992). The Act applies in conjunction with the Carriage of Goods by Sea Act 1971 (hereinafter COGSA 1971) under which the Hague-Visby Rules,¹⁶ as laid down in Schedule 1, apply automatically to certain carriage contracts and are given the force of law. COGSA 1992 applies to various transport documents, namely bills of lading (whether ‘shipped’ or ‘received for shipment’), sea waybills and ship’s delivery orders. Title to sue under the Act is not linked to property in the cargo but is vested in the lawful holder of or consignee mentioned in the transport document,¹⁷ without the need of establishing that such holder or consignee is the owner of the cargo represented by the document. Furthermore, the transfer of rights under a contract of carriage occurs independently of any transfer of liabilities. Thus the transfer of a paper bill of lading transfers to the new holder the right to enforce the contract of carriage against the carrier. However, the Act does not apply to electronic substitutes. Indeed, s 1(5) of COGSA 1992¹⁸ provides that

‘[t]he Secretary of State may by regulations make provision for the application of this Act to cases where an electronic communications network or any other information technology is used for effecting transactions corresponding to

- (a) the issue of a document to which this Act applies;
- (b) the indorsement, delivery or other transfer of such a document; or
- (c) the doing of anything else in relation to such a document.’

This implies that the application of this Act to electronic bills would depend on such Regulations being issued. None have been issued to date. Furthermore the Contracts

¹⁵ Merges and Reynolds, 1986.

¹⁶ The Hague-Visby Rules is the name given to one of the international conventions on the carriage of goods by sea that have been produced over the years. These include the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading (“Hague Rules”), the Hague Rules as Amended by the Brussels Protocol 1968 (“Hague-Visby Rules”) and The UN Convention on the Carriage of Goods by Sea 1978 (“Hamburg Rules”).

¹⁷ See especially ss 2 and 4 of the Act.

¹⁸ As amended by Communications Act 2003 Schedule 17 paragraph 119.

(Rights of Third Parties) Act 1999 does not apply to contracts for the carriage of goods by sea ‘contained in or evidenced by a bill of lading, sea waybill *or a corresponding electronic transaction*.’¹⁹ Therefore, as English law currently stands, a paper bill is necessary if a buyer of goods in transit is to acquire rights against the carrier without a new contract of carriage having to be entered into at the time each re-sale is concluded.²⁰

For the purposes of property law, transfer of a bill of lading in performance of a contract of sale will usually transfer to the transferee title to the goods that the bill represents.²¹ The property rights of third parties that may be inconsistent with those of the holder of the bill may be affected by the transfer of the bill, and the law will determine whose rights take priority in these cases. With the bill of lading, as is usual with documents of title, some variation of the maxim “possession vaut titre” will normally apply in cases where the holder receives the bill of lading for value, in good faith and without notice of his transferor’s defect in title. It should be noted that the bill of lading is not a negotiable instrument under English law, as although its transfer gives the new holder constructive possession of the goods, it will only transfer title to the goods under certain conditions. While it may be argued that in theory the maxim “nemo dat quod non habet” applies to bills of lading under English law, there are exceptions to this in the Factors Act 1889 and the Sale of Goods Act 1979 which bring the resulting position upon transfer closer to “possession vaut titre” in practice.²²

As English law contains no provisions on electronic transferable records, and as the English courts have not (yet) recognised and endorsed any mercantile custom in this regard, creating an electronic alternative to the bill of lading that performs the bill of lading’s document of title functions remains problematic under English law, even though, as shall be seen below, practical difficulties in realising an electronic equivalent to a concept so intimately linked to paper²³ have been largely resolved by

¹⁹ Emphasis added. See s 6(5) and (6) of the Act.

²⁰ Electronic contracting under English law is governed by The Electronic Commerce (EC Directive) Regulations 2002 (SI 2002 No. 2013). See especially Regulation 9, which in business to business transactions applies unless otherwise agreed. Problems may arise if enforcement is sought in a jurisdiction whose law contains statutory requirements for writing. For an account of cross-border issues which may arise see C Reed ‘E-Commerce’, Chapter 4 in C Reed and J Angel (eds), *Computer Law*, 6th edition, 2007, OUP, 227-231.

²¹ It was held in *Enichem Anic SpA v Ampelos Shipping Co Ltd (The Delfini)* [1990] Lloyd’s Rep. 252, 268 that ‘[the bill of lading] is a document which, although not itself capable of directly transferring the property in the goods which it represents, merely by endorsement and delivery, nevertheless is capable of being part of the mechanism by which property is passed.’ This is because in reality property passes by virtue of the contract of sale and the intention of the parties. The transfer of the bill of lading creates a prima facie presumption of the intention to transfer property (see *The Kronprinsessan Margareta, The Paragraphna* [1921] AC 486, 511-517 and C Debattista, ‘England’, in A Von Zeigler and others (eds) *Transfer of Ownership in International Trade*, 1999, Kluwer Law International and ICC, 141) and may also determine the moment when property passes (see M Bridge, *The International Sale of Goods: Law and Practice*, 2007, 2nd edition, OUP, paragraph 9.40).

²² See ss 8 and 9 of the Factors Act 1889 and ss 24 and 25(1) of the Sale of Goods Act 1979. These provisions refer to transfers made by sellers remaining in possession and buyers obtaining possession, with the seller’s consent, of documents of title. The bill of lading is captured by the term document of title for the purposes of both acts (see s 1(4) Factors Act and s 61(1) Sale of Goods Act).

²³ For a discussion of these difficulties see D Faber ‘Electronic Bills of Lading’ [1996] *Lloyds Maritime and Commercial Law Quarterly*, 232; B Kozolchyk, ‘The Evolution and Present State of the Ocean bill of lading from a Banking Law Perspective’ (1992) 23 *Journal of Maritime Law and Commerce* 161 and ‘The paperless letter of credit and related documents of title’ [1992] *Law and Contemporary*

technological advances. Because the law does not contain the necessary provisions, electronic bill of lading systems designed to operate under English law must be based on multipartite agreements that effect the desired transfers of right through the concepts of novation and attornment. Novation is a process whereby the old contract (between the carrier and the previous “holder”) is terminated and a new one, on the same terms, comes into existence between the carrier and the new holder.²⁴ Attornment has its basis in medieval land law²⁵ and consists of an undertaking by the bailee of the goods (the carrier) to the new “holder” that he will deliver the goods to him, thus giving the latter constructive possession of the goods.²⁶ But as technological solutions emerge to address the needs of the commercial world (just as bills of lading did when they originally came into use) it becomes increasingly important to re-examine the legal framework in order to ensure that it retains the flexibility to allow new commercial practices to develop in response to traders’ needs.

In order to facilitate the development of electronic alternatives to documents of title it is essential to translate, in legal terms, the concepts of “possession” and “holdership” into concepts that make sense in the electronic medium. This translation needs to be understood uniformly in different jurisdictions as the appeal of documents of title, in particular bills of lading, for cross-border trade is exactly the fact that they are pretty much universally recognised as having more or less the same “powers”, regardless of the jurisdiction concerned. Furthermore, because custom is a source of law, the rules laid down in legislation need to sit well with emerging commercial practice and allow for technological innovation. Finally, because transfer of title may affect rights of third parties who may or may not be party to any dispute that may arise, clarity and certainty are key to justice being done.

International standards on this subject that have been promulgated so far have tended to refer to the concepts of “singularity” and “uniqueness” and of “control” in substitution for “holdership” and “possession”. As far as bills of lading are concerned, these standards include the Comité Maritime International (CMI) Rules for Electronic Bills of Lading, which refer to the “Right of Control and Transfer” in Rule 4, the UNCITRAL Model Law on Electronic Commerce which refers to the concept of

Problems (summer issue) 39; WH Van Boom, ‘Certain Legal Aspects of Electronic Bills of Lading’, [1997] *European Transport Law*, 9; G Van der Ziel ‘Main Legal Issues Related to the Implementation of Electronic Transport Documentation’ [1997] *European Transport Law* 715

²⁴ At common law, novation terminates an old contract between two contracting parties and substitutes it with a new contract involving one of the original contracting parties and a new contracting party. It therefore creates not only a transfer of rights but also of obligations from the original contracting party to the new contracting party who substitutes him. See *Argo Fund Ltd v Essar Steel Ltd* [2005] EWHC 600 paragraphs 60-66, confirmed by the Court of Appeal [2006] Lloyd’s Rep. 134. M Clarke, ‘Transport Documents: their transferability as documents of title; electronic documents’ [2002] *Lloyd’s Maritime and Commercial Law Quarterly*, 356, 366-368 explains how the courts are likely to address issues of consideration in this context.

²⁵ See W Holdsworth, *Historical Introduction to the Land Law*, 1927, Oxford University Press, 129-130.

²⁶ It would appear from *The Future Express* [1993] 2 Lloyd’s Rep 542, 550, that express acknowledgement is necessary in order for attornment to take place. The Court of Appeal noted (ibid.) that ‘the bill of lading is the one exception to the rule that a change in the right to possession of goods in the keeping of a third party requires [the latter] to attorn.’ Therefore attornment would remain necessary as long as the law fails to treat an electronic bill in the same way as a paper bill. Once such recognition occurs, for example by the issue of Regulations under Section 1(5) of COGSA 1992, attornment would no longer be necessary.

uniqueness in Article 17(3) and (4) and the UNCITRAL Convention on the carriage of goods wholly or partly by sea 2008 (The Rotterdam Rules) where the concept of “exclusive control” defines “transfer” (Article 1(21)) and “issuance” (Article 1(22)) which in turn define “holder” (Article 1(10)). Further provisions also refer to the “controlling party” and the “right of control” (Articles 50 and 51). Thus using the concept of “exclusive control” as a starting point, it is possible to develop a legal language and therefore legislation that provides for the development and use of bills of lading in electronic form without having to resort to creative use of concepts such as novation and attornment. In the United States, where legislation has been passed to allow for the use of electronic bills of lading,²⁷ the concept that is used to define the conditions of equivalence is that of “control” of a “single authoritative copy”.

The current uses that are being made of electronic systems and processes to replace electronic transport documents will give some indication of the context in which such legal reform should take place. Detailed discussions of current practices may be found in recent published articles.²⁸ Briefly, the bulk of electronic alternatives are designed to substitute non-transferable sea waybills as opposed to bills of lading, however systems have emerged in recent years that allow also the transfer of rights over the goods and against the carrier while the cargo is in transit.²⁹ Three notable examples are the Bill of Lading Electronic Registry Organisation (Bolero) system, the Electronic Shipping Solutions (ESS) Databridge system and the Korea Trade Net (KTNET) Registry system. Each of these systems works on the basis that possession of a paper document is replaced by “exclusive control” of an electronic record. Bolero³⁰ and KTNET³¹ achieve exclusive control through a title registry. ESS Databridge achieves exclusive control through limiting access to the electronic record in question.³² As the success of such systems depends on their capacity to adapt

²⁷ See Article 7-106 and 7-501(b) of the Uniform Commercial Code (UCC).

²⁸ See N Gaskell ‘Bills of lading in an electronic age’ [2010] *Lloyd’s Maritime and Commercial Law Quarterly* 233-284 and M Goldby ‘A Re-Assessment of the CMI Rules for Electronic Bills of Lading in the Light of Current Practices’ [2008] *Lloyd’s Maritime and Commercial Law Quarterly* 56-70.

²⁹ See M Alba, ‘Necesidad para el Comercio Internacional de una Regulación Armonizada Sobre Documentos Electrónicos Negociables’ paper presented at the UNCITRAL Colloquium on Electronic Commerce 14-16 February 2011, New York, available at http://www.uncitral.org/pdf/english/colloquia/EC/MAlba_Paper_Negotiable_Docs.pdf (accessed 22-03-2011). See especially discussion under heading 5 of Token Systems and Registry Systems.

³⁰ Bolero is set up under English Law and is governed by its own private law framework, the Bolero Rulebook. In view of the fact that English law does not at present recognise the equivalence of “possession” and “exclusive control” for the purposes of replacing bills of lading with electronic alternatives, from the legal perspective the transfer of rights is effected through the concepts of novation and attornment. For an explanation see R Caplehorn ‘Bolero.net – The Global Electronic Commerce Solution for International Trade’, (1999) 10 *Butterworths Journal of International Banking and Financial Law*, 421.

³¹ This system was designated as the registry operator for the purposes of the South Korean Presidential Decree on the Implementation of the Electronic Bill of Lading Provisions of the Commercial Act of 2008. For a discussion of the content and workings of this legislation see *Present and possible future work on electronic commerce* United Nations Commission on International Trade Law, 15th April 2010, A/CN.9/692, paragraphs 26-47.

³² Like Bolero this system operates under a private law framework, the ESS-Databridge Services and Users Agreement (DSUA). The DSUA is governed by English law but where the contract of carriage in question is governed by US law, transfer of title under the DSUA is governed by the law of the State of New York including the New York Uniform Commercial Code and the United States Uniform Electronic Transactions Act 1999 (T&C 8.1). ‘This avoids the cumbersome novation and attornment approach for US law governed contracts of carriage as the UCC adopts a very simple approach to eB/Ls.’ Information obtained from an correspondence with ESS dated 8th February 2011 and the

themselves closely to customer demand and to provide services which the commercial world views as adding value, it is important that the law be such as to allow the development of a variety of systems tailored to specific sectors and trades.³³

1. Why is legislation necessary?

In spite of the examples we have seen above, the use of electronic alternatives to bills of lading remains far from ubiquitous. Amongst other things, the legal uncertainty which arises from the lack of a clear legal framework supporting electronic alternatives creates possible risks that potential users may be reluctant to take in order to reap the benefits of electronic replication.³⁴ Because of the state of English law, neither Bolero nor ESS Databridge could set up a system without first jumping through a number of legal hoops in order to ensure that rights normally obtained through the transfer of a bill of lading were successfully passed on to the relevant transferee in the eyes of the law. These hoops included undertaking a detailed legal feasibility study which delayed the launching of the system,³⁵ devising a detailed multi-party agreement to bind all parties, and resorting to the archaic legal concepts of novation and attornment in order to achieve effects already understood in much simpler terms by traders the world over.

The question arises here whether law reform at State level is essential. As we saw above, the origin of the bill of lading's capacity to achieve certain effects in the realms of contract and property law was a transnational customary one (i.e. trade usage). Would it not be possible therefore, for the international trade community to by-pass national laws and apply a non-national set of standards, based on usage and practice, to the use of electronic equivalents? The use of non-national standard terms to govern commercial relations is far from uncommon in international trade and a

accompanying attachment: *e/BLS: DSUA Overview* Electronic Shipping Solutions, 16th December 2010. Access is limited through a species of what Alba, 2011, refers to as a token system for granting exclusive control.

³³ For example ESS-Databridge, which has already experienced considerable success in the sector of oil transportation and trading, took great pains to design the system in response to its customers' preferences. As a result, information is visually presented to look just like a bill of lading, complete with stamps and endorsements, the system distinguishes between the single original and the copy and records are marked in various ways depending on their status, e.g. "issued", "transferred" or even "accomplished". Information derived from a demonstration of the system by an ESS representative on 15th February 2011.

³⁴ As aptly noted by C Pejovic 'Main Legal issues in the Implementation of EDI to Bills of Lading' [1999] *European Transport Law* 163, 164-165, 'One of the main reasons why electronic bills of lading are not used more in practice is the lack of legal regulation which causes concern to the parties regarding their legal value and effect, so that they hesitate to accept electronic bills of lading and prefer traditional paper documents.... The parties in international trade might refuse to accept documents in electronic form because of doubt as to their legal value. If such a document is to enjoy the same legal status as a paper document, the law must be changed so that legal effect can be recognized not only as to paper documents, but also as to documents created and transmitted by computers.' See also A Higgs and G Humphreys, 'Waybills: a case of common law laissez faire in European commerce' [1992] *Journal of Business Law* 453, 455-456.

³⁵ 'The Bolero Rulebook was developed following a comprehensive feasibility study into the legal issues to which the concept of Bolero gives rise. The study was undertaken by Allen & Overy and Richards Butler, two major international law firms based in London and represents probably one of the most extensive studies ever undertaken into electronic commerce related legal issues.' See <http://www.bolero.net/core-technology/overview.aspx> (visited 23-03- 2011).

prime example is the universal application of the Uniform Customs and Practices for Documentary Credits, formulated by the ICC, to documentary credit agreements by incorporation. A number of commentators have advocated the use of custom or usage to regulate electronic commerce transactions, observing that, for a number of reasons, not least among them the fact that the internet operates without regard for national borders, it provides a better alternative for the regulation of trade conducted over the internet than State law.³⁶

Thus it may be open to carriers and traders to develop a set of independent standard terms governing the use of electronic alternatives to bills of lading that may apply by contractual incorporation whenever and electronic alternative is used.³⁷ This approach would not be entirely independent of State law. The latter would continue to determine all issues governing the contract of carriage save for any issues involving the use and effect of electronic alternatives, which would be governed by the agreed standards. The Terms would not need to give details regarding the method whereby the singularity or exclusive control requirement would be satisfied, but they could be supplemented by guidance notes explaining the concept of exclusive control by reference to reliability and indicating examples of methods whereby acceptable levels of reliability may be achieved. The guidance notes could also address the issue as to what liabilities may arise for operational risk, what insurance cover is available and what the practice is regarding liability for malfunction of information technology systems in general and, in particular, systems made available by trusted third parties and secured by certification authorities.³⁸ This would introduce some clarity into the matter and would ensure that a certain amount of easily accessible risk awareness (if nothing else) is available for those who are considering the use of these alternatives.

The Terms would not make any determination regarding the carrier's liability for damage to the goods or for delay, only his liability for misdelivery. Similarly while they would determine who may exercise the rights or liabilities of the other party to the contract of carriage, they would not have any effect on what those rights are. These issues would fall to be determined in the normal way under the applicable State law, as would ownership rights over the goods represented by the electronic record.

Many problems may arise however if this approach were to be taken. While the reference to an electronic record that complies with the singularity requirement as a bill of lading within the Terms would be an indication that the parties intend it to be treated as such for the purposes of national law, there is absolutely no guarantee that the courts would take this view. Major uncertainties will remain with regard to legal recognition in some jurisdictions, not just with regard to the applicability of the

³⁶ See for example F Diedrich 'A Law of the Internet? Attempts to Regulate Electronic Commerce' [2000] *Journal of Information Law and Technology* available at http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2000_3/diedrich (visited 23-03-2011) and PP Polanski 'A New Approach to Regulating Internet Commerce: Custom as a Source of Electronic Commerce Law' (2002) 9 *Electronic Communication Law Review* 165.

³⁷ Indeed, the CMI's Rules for Electronic Bills of Lading were meant to function along these lines. However the proposed standards would have certain differences. For example they would not need to include a reference to State law (as did the CMI Rules in Rule 6). The UCP do not include such a reference – they simply apply as terms of a contract that has its own governing law.

³⁸ See for example Regulation 4 of Electronic Signatures regulations 2002 which implements Article 6 of Directive 1999/93/EC on a Community Framework for Electronic Signatures on the liability of Certification Authorities.

International conventions on the carriage of goods pre-dating the Rotterdam Rules, unless they are specifically incorporated,³⁹ but also with regard to whether requirements for “writing” or “document” which the local laws might lay down would be applicable⁴⁰ or whether the process that transfers exclusive control over an electronic record would have the same effect vis-à-vis third parties as the transfer of a document of title.⁴¹

Indeed, the significance of the electronic record in the context of determining which, between two persons claiming conflicting rights over the same goods, should take priority will also be doubtful.⁴² If the court deciding the issue does not choose to recognise a mercantile usage whereby the electronic record in question is the equivalent of a bill of lading in terms of legal effects, the holder of the record will be in a worse position than if he’d accepted a paper document whether he has exclusive control or not. The position would become even more complicated if courts in different jurisdictions differed in their treatment of these instruments.

Thus reform of State law in line with emerging international standards is the best way to eliminate uncertainties regarding the ability of electronic systems and processes to perform the functions of bills of lading (or indeed any document of title). By laying down clear requirements and conditions for the recognition of functional equivalence, the legislator can facilitate innovation by carriers and service providers and increase confidence in potential users that the effects sought by them can be achieved by electronic replication. What is more, as we saw above, what these requirements and conditions should be is becoming increasingly evident from the development of international standards covering both these electronic equivalents specifically, as well as general aspects of electronic contracting and the legal effect of electronic communications.

Below we shall be examining the reforms that would need to be made to English law for functional equivalence to be recognised. Many commentators on this subject have emphasised that law reform needs to take into account the views of those to whom the law will apply to make any reforms reflective of the needs and practices of the

³⁹ Van Boom, 1997, 15, notes that some courts may be unwilling to interpret the references to “bill of lading” in the Hague or Hague-Visby Rules in this way, as such an interpretation ‘could *never* have been conceived by the draftsmen that were responsible for the definition in question.’ He notes (ibid) that ‘[t]his willingness will vary from legal system to legal system.’ He expresses the view that these issues may eventually be resolved by ‘uniform trade custom’ however this would require much more widespread use of electronic alternatives than is currently taking place.

⁴⁰ Some jurisdictions may have narrow interpretations of what “writing” and “document” constitute. For an overview of this, see R Brunner, ‘Electronic transport documents and shipping practice not yet a married couple’ [2008] *European Transport Law*, 123, 134-136.

⁴¹ Difficulty is likely to be experienced in applying the term “document of title” to electronic alternatives. Yiannopoulos, 1995, 38, notes that ‘mandatory rules of law cannot be discarded by mere agreement of the parties, because they serve other useful purposes such as the protection of third parties. In jurisdictions in which physical endorsement and delivery of a document of title are required for the transfer of the ownership of goods, paperless transactions would be without effect. A distinguished scholar stated that, “as a rule, the creation of negotiable documents of title is a prerogative reserved solely for statutory law” [the author cites Kozolchyk]. This highlights the need of legislative reform for a successful implementation of electronic bills of lading.’ This is what makes attornment necessary under current English law, for example.

⁴² For a general discussion of the position with regard to paper bills see C Debattista, ‘England’, in A Von Zeigler and others (eds) *Transfer of Ownership in International Trade*, 1999, Kluwer Law International and ICC, 141.

international trade community.⁴³ It has also been observed that there should not be hasty reforms that will, a few years after they have been enacted, themselves begin to constitute barriers to further progress by becoming obsolete.⁴⁴ For this reason law reform should be minimalist and should be drafted in “technologically neutral” language.⁴⁵ It should also take place gradually in view of the fact that there is more likely to be a slow transition from paper to the electronic medium, rather than a sudden clean break. However the eventual end result should be a law that has broken away from old rules which are reflective of the paper medium and has developed in such a way as to accommodate the use of new technologies.⁴⁶

2. Reform of English Law

When examining which formal legal requirements in commercial transactions constituted an obstacle to electronic commerce, in 2001 the Law Commission addressed, among other matters, the question as to whether law reform was required to carriage of goods law in order to allow for the use of electronic equivalents.⁴⁷ It found that ‘all three functions of a paper bill of lading may be achieved electronically through the use of the CMI electronic bill or the BBL’⁴⁸ as the law currently stood. It also noted however that both of these were not “true equivalents” to the bill of lading as they required the involvement of the carrier or the registrar upon each transfer in order to achieve, by attornment and novation, the same result as would be achieved by a paper bill.⁴⁹ The Commission concluded that ‘[t]he absence of an electronic bill of lading, and the existence of adequate legal provision for contractual schemes, mean that there is no immediate need for domestic reform. *There may be need for reform in the longer term if an electronic bill of lading is created.*’⁵⁰

The problem with this approach is that unless the law were reformed in order to recognise an electronic alternative as a bill of lading, it would be impossible to create what the Law Commission calls a “true equivalent”, as attornment and novation would continue to be necessary in order to achieve the desired effects of issue and transfer, and they would need to form part of the relationship between the parties using the relevant electronic system if the desired effects are to be achieved. Thus, in order for parties to be able to issue and transfer a “true electronic equivalent” to the paper bill of lading, it is submitted that law reform *is* necessary, i.e. it must precede not follow this step.⁵¹

⁴³ See in particular Faber, 1995, 15.

⁴⁴ See C Nicoll, ‘Singapore: the Intelligent Island’, (1999) 6 *Electronic Data Interchange Law Review* 123, 141.

⁴⁵ See JB Ritter, ‘Defining international electronic commerce’ (1992) 13 *Northwestern Journal of International Law and Business* 3, 30 and C Nicoll ‘Electronic Commerce: A New Zealand Perspective’ (1999) 6 *Electronic Data Interchange Law Review* 5, 6.

⁴⁶ See Pejovic, 1999, 185.

⁴⁷ See *Electronic Commerce - Formal Requirements in Commercial Transactions: Advice from the Law Commission*, Law Commission, December 2001, available at <http://www.lawcom.gov.uk/docs/e-commerce.pdf> (visited 23-03-2011), Part 4, 23-24.

⁴⁸ *Ibid*, paragraph 4.7.

⁴⁹ *Ibid*.

⁵⁰ *Ibid*, paragraph 4.10, emphasis added.

⁵¹ The only other route would be to for such an electronic equivalent to achieve the same status as a paper bill of lading through usage and custom, as seen above, but, as noted, this is likely to raise various problems especially of uncertainty.

The recognition of the functional equivalence of electronic alternatives to bills of lading under English law would require first and foremost a reform of carriage of goods law. The legislator would have two options: the first would be to introduce these reforms in the context of a complete updating and re-organisation of the whole of English carriage of goods law, which is scattered among a number of sources including two Acts of Parliament as well as a number of court decisions. The second would be simply to issue regulations under s 1(5) of COGSA 1992.

Let us consider the first of these options, viz., a complete updating and re-organisation of the whole of English carriage of goods law. The most obvious basis for this update would of course be the Rotterdam Rules.⁵² The provisions of the Rules have the advantage of hindsight in that they seek to address the shortcomings of previous conventions that have come to light over the years. They also attempt to reflect current views and international consensus in the area of carriage of goods law. But it is unlikely that the UK will rush to ratify and implement the new Rotterdam Rules. The UK participated in the last three years of the drafting negotiations leading to the finalisation of the Convention, through the Department for Transport (DfT), but as may be expected, the attitude towards ratification and implementation remains cautious on the part of those who represented the UK in the negotiations,⁵³ and for good reason.⁵⁴ The ratification of the new Convention would bring about major changes and whether it eventually takes place is likely to depend both on the reactions of UK stakeholders and legal practitioners and on whether other States decide to become parties to the new Convention.⁵⁵

⁵² In fact the Law Commission, noted that '[i]t may ... be appropriate for the domestic position to be reconsidered when UNCITRAL and the CMI have completed the project which they are currently undertaking on all aspects of the international carriage of goods by sea.' See *Electronic Commerce - Formal Requirements in Commercial Transactions: Advice from the Law Commission*, 2001, paragraph 4.10.

⁵³ The following reactions were expressed by a representative of the DfT in an email dated 31st July 2008: 'While we can see positive benefits from adopting the new Rules, no agreed UK Government position exists on UK adoption, or not, of them and further consultation with our stakeholders and legal practitioners will be important before we would be prepared to recommend ratification (and consequential amendments to English law). Ratification will also depend on how other nations respond positively (*sic*) to the Rules i.e will the Rules be adopted by the great majority of UN member states, a level of support which is required if they are to supersede the Hague, the Hague-Visby ... and the Hamburg Rules ..., together with national codes, and thus achieve "uniformity". A number of issues caused strong debate/divided opinion throughout the course of negotiations ... on the Rules and it is probably fair to say that adoption might not be a straightforward issue.' See also *Draft convention on contracts for the international carriage of goods wholly or partly by sea: Compilation of comments by Governments and intergovernmental organizations*, Addendum 13: United Kingdom, 11 June 2008, UNCITRAL document A/CN.9/658/Add.13, for an overview of the UK's concerns regarding the text of the Convention itself.

⁵⁴ As aptly noted by Faber, 1995, 15, 'it is important to note that changes to the law can impose additional costs on business: thus change should be made only when necessary.'

⁵⁵ In an email dated 18th March 2011 a representative of the DfT observed as follows:

'The UK Government continues to support the principle of consolidating, harmonising and modernising existing rules governing the carriage of goods by sea. However, we consider this can only be successfully achieved by having an internationally agreed and workable regime that is broadly acceptable to all the commercial parties.

'In the absence a consensus of opinion on the Rotterdam Rules by UK businesses engaged in international trade, the Government remains neutral on them. We are nevertheless continuing to maintain a watching brief on international reaction to the Rules and will review the UK position if other leading maritime and trading nations ratify them.'

An argument which is frequently raised in explaining why the UK has not adopted the Vienna Convention on the International Sale of Goods,⁵⁶ which could equally be made by opponents to the new Convention, is that the UK is a major maritime nation and many contracts for the carriage of goods by sea are governed by English law. Thus the concern might well arise on the part of legal practitioners, that changing the well-established and developed current laws would introduce uncertainties which in turn might decrease the popularity of English law as applicable law and London as a centre for dispute resolution. Thus the first option, while a possibility, is not likely to be a good short-term law reform solution for the legal recognition of functional equivalence of electronic alternatives.

But adoption of the new Convention is certainly not the only option open to the UK Government for this purpose. Current carriage of goods law may be amended in order to introduce the required legal certainty in this regard. The necessary reforms to English law involve issuing regulations under s 1(5) of COGSA 1992 providing for the application of the Act to electronic alternatives which satisfy the singularity requirement (hereinafter s 1(5) Regulations). The legislator would also need to make explicit the application of the Hague-Visby Rules which have the force of law in England and Wales under COGSA 1971 to electronic alternatives falling under the abovementioned regulations. The reforms would not involve only carriage of goods law. Amendments would have to be made also in the areas of agency law and sale of goods law: clarifications would have to be inserted into the Factors Act and the Sale of Goods Act to ensure that where mercantile agents are involved in the transfer of an electronic bill of lading that satisfies the requirements of the s 1(5) Regulations, the effects will be same as if what had been transferred was a paper bill. Thus the s 1(5) Regulations would be central to the reform exercise.

What would be the content of Regulations issued under s 1(5)? The main requirement that should be applied by law to electronic processes purporting to perform the same functions as a bill of lading is the singularity requirement, whereby a holder must be given exclusive control of an electronic transport record. The regulations could easily adopt the wording of the Rotterdam Rules in order to make provision for the singularity requirement whereby exclusive control over an electronic transport record could be issued, transferred and held (Articles 1(10), (21) and (22), and 9). Provisions regarding transfer of the electronic transport record and delivery of the goods could also be adapted and included in the regulations. The advantage of using the provisions of the Rotterdam Rules as a source is that if the decision to ratify it is eventually made at national level, the law on electronic alternatives will not suffer a big upheaval as a consequence. Further, because these provisions represent a certain amount of international consensus on the subject, it will ensure a degree of uniformity between the UK treatment of these alternatives and their treatment in other jurisdictions.

The s 1(5) Regulations would need to extend the application of COGSA 1992 also to electronic alternatives to sea waybills. A decision would have to be made by the drafter on whether the distinction made by the courts between straight bills of lading and sea waybills should be extended to electronic equivalents or whether for the

⁵⁶ See for example A Forte, 'The United Nations Convention on Contracts for the International Sale of Goods: Reason or Unreason in the United Kingdom' (1997) 26 *University of Baltimore Law Review* 51, 56-63.

purposes of the Regulations straight bills of lading should be equated with sea waybills in the same way as they are in COGSA 1992. The distinction between the two types of instrument currently applies for the purposes of COGSA 1971 and it is a significant distinction for the purposes of the Regulations because since it has to be surrendered to the carrier for delivery of the goods to take place an electronic equivalent of the straight bill of lading would still have to satisfy the singularity requirement while a sea waybill would not, as the carrier delivers to the consignee and not to the person in possession of the document.

The removal of the distinction between straight bills of lading and sea waybills for the purposes of electronic replication would have its benefits as it would introduce more clarity with regard to the right of control.⁵⁷ If the distinction is kept, where an electronic equivalent to a straight bill of lading is issued, ambiguities may arise as to who has the right of control, as the person who is designated as consignee may be different from the person having exclusive control of the electronic transport record (the latter may be a bank, for example). The right to delivery can only be exercised by the consignee if he has also obtained exclusive control, but there is ambiguity as to who would be the controlling party for the purposes of the exercise of other rights (e.g. giving instructions to the carrier in relation to the goods or replacing the consignee). The contract of carriage would have to include provisions as to who would be deemed the controlling party for these purposes and complications might arise where these provisions are not included.

On the other hand if the distinction is removed, those who might, if they had been issued a straight paper bill of lading, have enjoyed the advantages of automatic application of the Hague-Visby Rules, in accordance with the *Rafaela S* decision,⁵⁸ will find that these Rules do not apply to their contract of carriage simply because it is evidenced by or contained in an electronic transport record rather than a paper document. Thus the legislator might not want to take this course, even though the distinction was removed for the purposes of COGSA 1992.⁵⁹ Therefore the preferred course is likely to be to retain the distinction. In this way the regulations would maintain the status quo and aim purely for functional equivalence.

Appendix 1 shows what the Regulations and (consequent amendments) might look like if all of the above were done.

⁵⁷ Defined in Regulation 1(13) of Appendix 1.

⁵⁸ *The Rafaela S* [2005] 2 AC 423.

⁵⁹ It is also worth noting here that while the final version of the Rotterdam Rules does not include a reference to electronic equivalents to straight bills of lading, this is not a problem for the purposes of these Rules because, unlike the Hague-Visby Rules, the provisions of the Rotterdam Rules apply mandatorily also to contracts of carriage contained in electronic equivalents to waybills and therefore, where they apply, the functions of straight bills may be performed by non-negotiable electronic transport records. The draft contained in UNCITRAL document A/CN.9/WG.III/WP.101 dated November 2007 contained a provision (Article 49) under which exclusive control would have to be demonstrated in accordance with the Article 9 procedures by a person requesting delivery of the goods from the carrier where the contract of carriage is contained in an electronic equivalent to a straight bill. This provision was done away with as, according to the Working Group there was no existing practice of using an electronic equivalent to a straight bill (see paragraph 157 of UNCITRAL document A/CN.9/645).

The proposed s 1(5) Regulations adopt the Convention's notion of exclusive control as a means of imposing the singularity requirement. Neither UNCITRAL's Model Law on Electronic Commerce nor its Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea pronounce themselves on the method whereby such exclusive control should be given or the singularity requirement satisfied, and like them, the proposed Regulations are silent on this point and leave it to the parties to agree on the method to be used for this purpose. This is the correct approach and it is submitted that it should be the approach adopted by English law as while registration appears to be among the most popular methods for dematerialisation of documents of title,⁶⁰ it is by no means the only method.⁶¹ The proposed Regulations are also silent about what means should be used for providing a reliable system of communication for the issue and transfer of these records, and for the giving of proper identification. At present it appears that this will require of necessity the issue of ID Certificates and the performance of encryption and identification services by Trusted Third Parties or Certification Authorities (CAs). But this does not mean that the use of CAs should be made a specific legal requirement in order to protect the parties to the transaction.

While it seems pretty certain that any system providing electronic replication of the bill of lading's functions will need to make use of these services as things stand, it does not follow that their use should be made an express requirement by carriage of goods laws. It is submitted that it should be up to the parties, with reference to available technologies and applicable laws on electronic communications, to agree how these requirements as to reliability are to be satisfied in practice. Thus in the Regulations, the carrier is required to electronically sign the negotiable electronic transport record in accordance with the provisions of s 7 of the Electronic Communications Act 2000, but any further detail regarding what needs to be done to ensure the security and reliability of electronic communications is left to the parties to determine by agreement.⁶² One of the main reasons for this is that it would be impractical for carriage of goods law to have to be constantly updated in order to keep up with technological developments: just because the use of CAs is an essential element in secure communications at present, it does not mean that other methods may not be developed in future.

Furthermore, not even laws on electronic communications and electronic signatures tend to be prescriptive regarding technology to be used in performing certain functions. Referring to UNCITRAL's Model Law on Electronic Commerce 1996 and

⁶⁰ As seen above, registration is the method adopted both by Bolero and KTNET. It is also the method adopted in China for the dematerialisation of bills of exchange. See *Address at the Press Conference on the Launch of the Electronic Commercial Draft System*, Deputy Governor Su Ning, People's Bank of China, 2nd November 2009 available at http://www.pbc.gov.cn/publish/english/956/2010/20100524151947628705575/20100524151947628705575_.html (accessed 23-03-2011).

⁶¹ As seen above, ESS-Databridge does not use a registry, but a species of token system for providing exclusive control.

⁶² As noted by C Reed 'Legally Binding Electronic Documents: Digital Signatures and Authentication' (2001) 35 *International Law* 89, 106, 'Even where accreditation does not form part of the law's requirements for a valid electronic signature, it is likely that online traders will require their trading partners to use signatures supported by a certificate from an accredited Certification Authority. Such signatures avoid the difficulties inherent in proving that the signature method achieved the evidential functions ... and will also benefit from reciprocal recognition in those jurisdictions that make the use of accredited Certification Authorities compulsory as a condition of electronic signature validation.'

its Model Law on Electronic Signatures 2001 as examples, Reed⁶³ notes that ‘increasingly the trend is towards defining the functions required from the technology rather than the technology itself.’ He observes however that ‘[m]ore recently ... the trend has been towards a two-tier approach to this issue; electronic signatures which meet the functional requirements are validated but the law also makes provision for a greater level of legal acceptability for those signatures which are based on ID Certificates.’⁶⁴ This is the approach taken within the EU under the EC Directive on Electronic Signatures,⁶⁵ where CAs themselves do not require a state-issued licence in order to provide their services but voluntary accreditation schemes may be introduced by member states aiming at enhanced levels of certification service provision.⁶⁶

In view of this, the suggested Regulations also adopt the functional approach, but an obligation is placed on the carrier to have regard to electronic communications laws when selecting the method of signing. In addition, guidance notes accompanying the Regulations can indicate that the requirements imposed by the word “reliable”⁶⁷ within the definition of exclusive control in Regulation 1 and the expression “properly identify” in Regulation 4 will be deemed satisfied for the purposes of the law if the services of Trusted Third Parties such as accredited CAs are used to secure servers where information (including information constituting a register) is held, as well as communications that take place through those servers. This guidance can be easily updated, in accordance with practical and technological developments, industry practice and court decisions, as the use of electronic alternatives becomes more widespread, without the need to amend the law itself.

The issue of the suggested Regulations together with the suggested amendments to other laws would ensure the recognition by English law of the functional equivalence of electronic alternatives to bills of lading that satisfy the singularity requirement. However there is no indication at present that these actions are likely to be taken by

⁶³ C Reed, *Internet Law: Text and Materials*, 2004, 2nd edition, CUP, 194.

⁶⁴ Ibid.

⁶⁵ Directive 1999/93/EC on a Community framework for electronic signatures, OJ L13/12, 19th January 2000.

⁶⁶ See Article 3(2) of the Directive. Such a scheme has been introduced in the UK where the Trust Services industry is self-regulated through an initiative known as tScheme. See <http://www.tscheme.org/about/index.html> (visited 23-03-2011). This project is also referred to in the *Guide to Electronic Signatures and Associated Legislation*, Department of Trade and Industry (undated). Available at <http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk/files/file34340.pdf> (visited 23-03-2011). The Electronic Signatures Regulations 2002 (Statutory Instrument 2002 No.318) which implement the Directive into UK Law apply to tScheme (See Regulation 3) and accredited certification service providers enjoy limitation of their liabilities under Regulation 4. Guidance regarding secure digital signatures is provided by the Information Security Management Systems standards, managed by the International User Group, an entity which develops international standards and best practices for security management systems, including digital signatures. It was set up and is supported by the Department for Trade and Industry (now the Department for Business, Innovation and Skills). Information regarding it is available at <http://www.xisec.com/> (visited 23-03-2011).

⁶⁷ The concept of reliability is defined in the International Chamber of Commerce’s document, *General Usage for International Digitally Ensured Commerce* (GUIDEC), Chapter IV (Glossary of Terms) paragraph 16 as ‘having the qualities of: (a) being reasonably secure from intrusion and misuse; (b) providing a reasonable level of availability, reliability, and correct operation.’ The terms “reasonable” and “correct operation” are further explained by the document. See <http://jya.com/guidec2.htm> (visited 23-03-2011).

the legislator in the near future.⁶⁸ At national level, the law tends to be reactive rather than proactive and the legislator is likely to wait until there is hard evidence of more widespread use and a real, practical need for legislation before undertaking a law reform exercise, the implications of which would need to be thought through carefully. But this does lead to a vicious circle situation where potential users are waiting for a clear legal framework and the legislators are waiting for evidence of interest from potential users.

With the emergence and establishment in the UK of systems such as ESS-Databridge, which is growing in popularity and increasing the range of its services,⁶⁹ the time would appear ripe for the UK to take this first step forward and thus introduce a legal lexicon, in line with international standards, that could then be used in legislating also for electronic alternatives to other documents of title as and when the need and demand for them becomes apparent.

⁶⁸ While the Department for Transport (DfT) (email dated 31st July 2008) mentioned the possibility of a future consultation exercise regarding the new Convention, nothing specific seems to be in the pipeline at the moment. In addition, both the Department for Business, Enterprise and Regulatory Reform (BERR) and the Law Commission were contacted regarding this and both responded briefly (emails dated 16th June 2008 – from BERR - and 17th July 2008 – from the Law Commission) saying that no work was being done on this at present. In an email dated 18th March 2011 a representative of the DfT indicated that ‘there are currently no plans to issue regulations under s 1(5) of the Carriage of Goods by Sea Act 1992 to make provision for the application of the Act to electronic alternatives to transport documents.’

⁶⁹ See the news section of the ESS-Databridge website which publishes regular announcements of an increasing customer base and new services as they are launched. Available at http://www.essdocs.com/our_company/news (accessed 23-03-2011). A list of examples of current customers may be found <http://www.essdocs.com/clients/clientlist> (accessed 23-03-2011).

Appendix 1

Suggested Text for English Law Reforms

Regulations issued under Section 1(5) of COGSA 1992

1. Interpretation

- (1) “Consignee” means the person entitled to delivery of the goods under the contract of carriage.
- (2) “Contract of carriage” a contract in which the carrier, against the payment of freight, undertakes to carry goods by sea. Section 5(1) of COGSA 1992 shall apply.
- (3) “Contract particulars” means any information relating to the contract of carriage or to the goods (including terms, notations, signatures and endorsements) that is in an electronic transport record.
- (4) “Controlling party” means the person that is entitled to exercise the right of control.
- (5) “Electronic communication” means information generated, sent, received or stored by electronic, optical, digital or similar means with the result that the information communicated is accessible so as to be usable for subsequent reference.
- (6) “Electronic transport record” means information in one or more messages issued by electronic communication under a contract of carriage by a carrier, including information logically associated with the electronic transport record by attachments or otherwise linked to the electronic transport record contemporaneously with or subsequent to its issue by the carrier, so as to become part of the electronic transport record, that:
 - (a) Evidences the carrier’s or a performing party’s receipt of goods under a contract of carriage; and
 - (b) Evidences or contains a contract of carriage.
- (7) “Exclusive Control” of an electronic transport record is obtained where a reliable method is used to render such record unique.⁷⁰

⁷⁰ This definition is not found in UNCITRAL’s Convention but it is based on Article 17(3) of the Model Law on Electronic Commerce which lays down the singularity requirement. The Model Law referred to rendering a ‘data message’ rather than an electronic record unique. This has been viewed (RIL Howland, ‘UNCITRAL Model Law on Electronic Commerce’, [1997] *European Transport Law* 703, 707) as problematic, since ‘all electronic messages are, in any case, always and necessarily unique - each with its own addressee, its own time of dispatch, its own contents.’ (See also paragraph 117 of the Guide to Enactment of the Model Law on Electronic Commerce). Referring to the uniqueness of the electronic transport record itself rather than the messages being exchanged to transfer exclusive control over it, should clarify what is meant here.

- (8) “Holder” means the person to which a negotiable electronic transport record has been issued or transferred in accordance with the procedures referred to in Regulation 2, paragraph 2.
- (9) The “issuance” of a negotiable electronic transport record or a non-negotiable electronic transport record that indicates that it shall be surrendered in order to obtain delivery of the goods, means the issuance of the record in accordance with procedures that ensure that the record is subject to exclusive control from its creation until it ceases to have any effect or validity.
- (10) “Negotiable electronic transport record” means an electronic transport record:
- (a) That indicates, by wording such as “to order”, or “negotiable”, or other appropriate wording recognized as having the same effect by the law applicable to the record, that the goods have been consigned to the order of the shipper or to the order of the consignee, and is not explicitly stated as being “non-negotiable” or “not negotiable”; and
 - (b) The use of which meets the requirements of Regulation 2, paragraphs 2 and 3 of these Regulations.
- (11) “Non-negotiable electronic transport record” means an electronic transport record that is not a negotiable electronic transport record.
- (12) “Paper bill of lading” means a bill of lading issued in paper form.
- (13) “Right of control” can refer to any of the following rights:
- (a) The right to give or modify instructions in respect of the goods in accordance with the contract of carriage;
 - (b) The right to obtain delivery of the goods in accordance with the contract of carriage; and
 - (c) The right to replace the consignee in accordance with the contract of carriage.
- (14) “Shipper” means a person that enters into a contract of carriage with a carrier.
- (15) “Straight paper bill of lading” means a transport document issued in paper form that:
- (a) is such a receipt for goods as contains or evidences a contract for the carriage of goods by sea;
 - (b) refers to itself as a “bill of lading” and has the usual appearance of a paper bill of lading, but is marked as being non-negotiable;⁷¹
 - (c) identifies the consignee; and
 - (b) indicates that it shall be surrendered in order to obtain delivery of the goods.⁷²

⁷¹ This requirement is in line with the decision in the *Rafaela S* [2005] 2 AC 423, where much emphasis was placed by the House of Lords on the appearance of the document and the way it described itself. See in particular the decisions of Lord Bingham of Cornhill paragraphs 4-5 and Lord Rodger of Earlsferry, paragraph 58.

⁷² This is a reference to “the time honoured form”, viz. “one of which being accomplished, the others to stand void”. See Lord Steyn’s decision in the *Rafaela S*, [2005] 2 AC 423 paragraph 45. See also comments in S Girvin, ‘Bills of lading and straight bills of lading: principles and practice’ [2006] *Journal of Business Law*, 86.

- (16) “Surrender” in relation to an electronic transport requires a demonstration that one exercises exclusive control over that record.
- (17) The “transfer” of a negotiable electronic transport record or a non-negotiable electronic transport record that indicates that it shall be surrendered in order to obtain delivery of the goods means the transfer of exclusive control over the record.

2. Extension of the meaning of certain terms for the purposes of COGSA 1992

- (1) For the purposes of COGSA 1992 the term “bill of lading” shall include any negotiable electronic transport record the use of which satisfies the requirements of paragraphs (2) and (3) of this regulation. When such a negotiable electronic transport record is issued, the holder is the controlling party.⁷³
- (2) The use of a negotiable electronic transport record shall be subject to procedures that provide for:
- (a) The method for the issuance and the transfer of that record to an intended holder;
 - (b) An assurance that the record retains its integrity;
 - (c) The manner in which the holder is able to demonstrate that it is the holder;⁷⁴ and
 - (d) The manner of providing confirmation that delivery to the holder has been effected, or that, pursuant to Regulation 3, paragraph (2) the electronic transport record has ceased to have any effect or validity.
- (3) The procedures in paragraph (2) of this Regulation shall be referred to in the contract particulars and be readily ascertainable.
- (4) For the purposes of COGSA 1992, exclusive control of a negotiable electronic transport record that satisfies the requirements of paragraphs (2) and (3) of this Regulation shall be equivalent to possession of a paper bill of lading.
- (5) For the purposes of COGSA 1992, a “lawful holder” is a holder that has obtained exclusive control of a negotiable electronic transport record in good faith.
- (6) For the purposes of Section 4 of COGSA 1992, an electronic signature as defined in Section 7 of the Electronic Communications Act 2000⁷⁵ shall have same effect as a manual signature.⁷⁶

⁷³ The sentence “when such a negotiable electronic transport record is issued, the holder is the controlling party”, could also appear in the definition of “controlling party” (Regulation 1(4)). This sentence is meant to indicate that the carrier may only deliver to the person who is holder (and therefore has exclusive control) of the negotiable electronic transport record, and who therefore may exclusively exercise the right of control in all its guises.

⁷⁴ As far as delivery is concerned, this would require a contractual provision such as Article 3.6 of the Bolero Rulebook.

⁷⁵ This definition is worded differently from that found in Regulation 2 of the Electronic Signatures Regulations 2002, however it is suggested by DH Griffiths and J Harrison ‘United Kingdom’, Chapter 24 in D Campbell (ed.) *E-Commerce and the Law of Digital Signatures*, 2005, OUP, 656 that ‘for

- (7) For the purposes of COGSA 1992, a sea waybill shall include a non-negotiable electronic transport record.
- (8) The use of a non-negotiable electronic transport record that indicates that it shall be surrendered in order to obtain delivery of the goods shall be subject to procedures that provide for:
- (a) The method for the issuance and the transfer of that record;
 - (b) An assurance that the record retains its integrity;
 - (c) The manner in which the record is to be surrendered; and
 - (d) The manner of providing confirmation that delivery has been effected, or that, pursuant to Regulation 3, paragraph (4), the electronic transport record has ceased to have any effect or validity.
- (9) The procedures in paragraph (8) of this Regulation shall be referred to in the contract particulars and be readily ascertainable.

3. Replacement

- (1) If a paper bill of lading has been issued and the carrier and the holder agree to replace that document by a negotiable electronic transport record:
- (a) The holder shall surrender the paper bill of lading, or all of them if more than one has been issued, to the carrier;
 - (b) The carrier shall issue to the holder a negotiable electronic transport record that includes a statement that it replaces the paper bill of lading; and
 - (c) The paper bill of lading ceases thereafter to have any effect or validity.
- (2) If a negotiable electronic transport record has been issued and the carrier and the holder agree to replace that electronic transport record by a paper bill of lading:
- (a) The carrier shall issue to the holder, in place of the electronic transport record, a paper bill of lading that includes a statement that it replaces the negotiable electronic transport record; and
 - (b) The electronic transport record ceases thereafter to have any effect or validity.
- (3) If a straight paper bill of lading has been issued and the carrier and the person in possession of the straight paper bill of lading agree to replace that document by a non-negotiable electronic transport record that requires surrender:
- (a) The person in possession shall surrender the straight paper bill of lading, or all of them if more than one has been issued, to the carrier;

practical purposes, there is no distinction between the two definitions and that they should be treated as being functionally identical.’

⁷⁶ Note that Section 7 of the Electronic Communications Act 2000 ‘has nothing to say about the veracity or validity of an electronic signature; that is a matter for the court to determine on the basis of the evidence before it. Nor does Section 7 deal with the question of whether an electronic signature satisfies a statutory (or, indeed, a contractual) requirement for a signature. Rather section 7 as the more modest objective of providing that electronic signatures are admissible in evidence in the first instance, in order that a court can make a determination as to these other matters.’ Griffiths and Harrison, 2005, 658. Re the evidential functions of signatures see also C Reed ‘What is a signature?’ [2000] *Journal of Information Law and Technology* available at: http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2000_3/reed (visited 23-03-2011) sub-heading 3.1.

- (b) The carrier shall issue to such person a non-negotiable electronic transport record that indicates:
 - (i) that it shall be surrendered in order to obtain delivery of the goods
 - (ii) that it replaces the straight paper bill of lading; and
 - (c) The straight paper bill of lading ceases thereafter to have any effect or validity.
- (4) If a non-negotiable electronic transport record that indicates that it shall be surrendered in order to obtain delivery of the goods has been issued and the carrier and the person having exclusive control of the record agree to replace that record by a straight paper bill of lading:
- (a) The carrier shall issue to the holder, in place of the electronic transport record, a straight paper bill of lading that includes a statement that it replaces the electronic transport record; and
 - (b) The electronic transport record ceases thereafter to have any effect or validity.

4. Exercise of the right of control

- (1) When a non-negotiable electronic transport record has been issued, the controlling party shall properly identify itself when exercising the right of control in accordance with the contract of carriage. Where transfer of the right of control is permitted by the contract of carriage, the controlling party shall also properly identify itself when transferring the right of control.⁷⁷
- (2) When a non-negotiable electronic transport record that requires surrender has been issued, the controlling party shall properly identify itself and demonstrate in accordance with the procedures referred to in Regulation 2, paragraph 8, that it has exclusive control of the electronic transport record, when exercising or transferring the right of control in accordance with the contract of carriage.⁷⁸
- (3) When a negotiable electronic transport record has been issued the holder shall exercise the right of control in accordance with the procedures referred to in Regulation 2, paragraph 2.

⁷⁷ This provision purposely does not indicate who the controlling party is. This will be determined contractually in the normal manner. For example as far as sea waybills are concerned, the shipper (who enters into the contract of carriage with the carrier) would normally be the controlling party for the purposes of giving the carrier instructions with regard to the goods, but the terms of carriage may themselves allow for this right of control to be transferred to someone else (e.g. a financing bank or the consignee), in which case this would also be possible with an electronic equivalent. The controlling party for the purposes of demanding delivery of the goods would be the consignee. If these Regulations were adopted, the consignee would acquire rights against the carrier under COGSA 1992 s 2(1)(b).

⁷⁸ Here too who the controlling party is will be determined by the contract of carriage. The controlling party will be either the shipper or the consignee depending on which one has exclusive control over the electronic transport record. What constitutes the right of control will of course be limited by the contract of carriage. For example it would be up to such contract to determine whether it would be possible for the controlling party to replace the consignee once the record has been issued (unlikely as this would put in question the whole point of issuing a non-negotiable rather than a negotiable record). Because this is a non-negotiable record, the right to demand delivery of the goods can only be transferred to the consignee. This provision is admittedly awkward and is reflective of the problems that arise out of treating straight bills as sea waybills for the purposes of COGSA 1992 but as bills of lading for other purposes.

Amendments to COGSA 1971

Section 1(4A)

For the purposes of subsection (4) the term “bill of lading” shall include a negotiable electronic transport record as defined by the Regulations issued under Section 1(5) of COGSA 1992. It shall also include a non-negotiable electronic transport record that requires surrender and that satisfies the requirements of those regulations.

Section 1(4B)

An electronic transport record that constitutes a bill of lading under the previous subsection may be issued for the purposes of Article III (3) of the Rules if both parties to the contract of carriage so agree.

Section 1(6)(b)

After the words “marked as such” include the following phrase:
“or non-negotiable electronic transport record as defined by the Regulations issued under Section 1(5) of COGSA 1992”

Amendments to Factors Act 1889 s 1

At the end of Section 1, subsection (4), add the following sentence:
The expression “bill of lading” shall include a negotiable electronic transport record as defined by the Regulations issued under Section 1(5) of COGSA 1992.

Amendments to Sale of Goods Act 1979 s 61

In Section 61 subsection (1) following the definition of “action” add the following definition:
“bill of lading” shall include a negotiable electronic transport record as defined by the Regulations issued under Section 1(5) of COGSA 1992.