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Updating the Electronic Transactions Act? Australia's Accession to the UN Convention on the use of Electronic Communications in International Contracts 2005

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'UPDATING' THE ELECTRONIC TRANSACTIONS ACT?
- AUSTRALIA'S ACCESSION TO THE UN CONVENTION ON THE USE OF ELECTRONIC COMMUNICATIONS IN INTERNATIONAL CONTRACTS 2005

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INTRODUCTION

In November 2008, the Attorney General's Department released a consultation paper on the Australian Government's proposal to accede to the United Nations Convention on the Use of Electronic Communications in International Contracts ('CUECIC' or 'Convention').[1] The consultation paper proposes certain amendments to existing Australian electronic transactions legislation, i.e. the Electronic Transactions Act (Commonwealth) 1999 ('ETA') and its state equivalents.[2] The paper contains a number of recommendations designed to 'update' the ETA and 'bring it into line'[3] with the Convention. The primary aim of the latter is to enhance legal certainty and commercial predictability where electronic communications are used in relation to international contracts. Its purpose is to facilitate international trade by offering practical solutions for issues arising out of the use of electronic communications in the formation or performance of contracts between parties located in different countries. The Convention was formally adopted by the UN on 23 November 2005 and remained open for signature until 16 January 2008. The Australian Government, through the Standing Committee of Attorneys-General, is presently debating whether to accede to the Convention.

Translated into practice, the CUECIC governs transactions concluded over the Internet and what is commonly referred to as e-commerce, i.e. the 'use of digital systems to create/perform commercial transactions.'[4] The consultation paper suggests that the solutions of the CUECIC be cascaded down to the

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[1] Convention on the use of Electronic Communications in International Contracting, adopted on 23rd November 2005.

[2] Electronic Transactions Act 2000 (NSW), Electronic Transactions (Victoria) Act 2000, Electronic Transactions Act 2000 (SA), Electronic Transactions Act 2000 (Tas), Electronic Transactions Act 2000 (NT), Electronic Transactions Act 2001 (ACT), Electronic Transactions Act 2001 (Qld) containing slight variations, Electronic Transactions Act 2003 (WA).

[3] Consultation Paper p 5

[4] R T Nimmer, H K Towle, *Law of ElectronicCommercial Transactions*, Arlington 2003, para 1.01; see also: *Guide to Measuring the Information Society*, OECD Working Party on Indicators for the Information Society, DSTI/ICCP/IIS (2005) 6/Final, p 41, which introduces a distinction depending on whether the sale and purchase of goods and

individual state ETAs – irrespective of and apart from the adoption of the convention to international contracts.[5] As a result, a number of legal solutions, which assume an *international* and *strictly commercial* (i.e. non-consumer) character of the transaction, would directly apply to domestic transactions conducted by electronic means.

The consultation paper contains 11 recommendations. They range from meeting formal requirements on-line, determining a party's place of business, through to formulating rules of establishing 'dispatch' and 'receipt' of electronic communications. The present article discusses only 4 recommendations, namely those relating to the mechanics of contract formation. It highlights the potential complications that may result from the amendment of the ETA and the interference those alleged 'updates' may cause with the existing legal regime governing contract formation. Unavoidably, the arguments presented lead to a critique of some of the solutions adapted by the CUECIC and the ETA.

ROADMAP

This article commences with a number of caveats and observations, which delineate the scope of argument. To set the stage for a discussion of the proposed changes, the common assumptions underlying the CUECIC and the ETA are introduced. Subsequently, the basic contractual principles are recalled. These latter constitute the common denominator of all further discussions. Next, the 4 recommendations affecting contract formation are presented. Their order of presentation is dictated by the argument – not their individual numbering. A common thread in three of the recommendations is the automation of electronic transactions. It exemplifies the state of confusion persisting with regard to the use of pre-programmed information systems in the formation of contracts. The fourth recommendation touches on the subject of determining the time of formation. It is the latter recommendation that deserves special attention as it illustrates the difficulties in transposing traditional, 'paper-based' principles onto novel communication scenarios. The starting point for any discussion of the proposed changes must be an in-depth look at the rules of determining the time of contract formation. These rules developed around methods of communication, which may no longer be in wide use, such as telexes and telegrams. It is also necessary to briefly mention the technological difficulties introduced by new communication methods. Descriptions of technology are, however, kept to a minimum. After all, even the most basic communication scenarios can illustrate the challenges of applying rules, which developed around the post, to electronic contracting scenarios. It must also be remembered that different technologies create different challenges. The two most popular Internet-based communication technologies, email and the world-wide-web, are taken as examples. The latter forms the basis of the first three recommendations; the former seems to have more relevance for the discussion of 'dispatch' and 'receipt.' Needless to say, legal challenges do not fold neatly along technological lines and the suggested division is a necessary simplification.

CAVEATS & GENERAL OBSERVATIONS

This article steers clear of questions of general policy and international law. It is also beyond its scope to analyze all proposed changes of the ETA. The discussion is limited to those provisions of the CUECIC and those recommendations that directly affect the formation of contracts by electronic means *in Australia*. The aim is modest: to show the complications that may arise if the 'updates' are implemented. In particular, the creation of a separate legal regime for electronic transactions is exposed.

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services is conducted over computer-mediated networks or over the Internet; for different definitions and a discussion of basic business models see: J F Rayport, B J Jaworski, *Introduction to E-commerce,* New York 2002, pp 4, 5; K C Laudon, C G Traver, *E-commerce: Business, Technology, Society*, Sydney 2001, p 57; the Australian *Report of the Electronic Commerce Expert Group to the Attorney General* (1998) para 1.2, defines e-commerce as including facsimile and telephone.

[5] Consultation Paper p 5

This article focuses on four recommendations:

- the use of automated systems for contract formation;
- the use of electronic communications to make invitations to treat;
- the right of withdrawal where a natural person makes an input error when dealing with an automated system; and
- the formulation of 'dispatch' and 'receipt' when determining the time of contract formation.

In accordance with the consultation paper the Convention contains 'additional rules directed at clarifying traditional rules on contract formation to accommodate the needs of electronic commerce.'[6] Apart from those issues, it does not otherwise 'purport to vary or create contract law.'[7] The alleged 'clarifications,' however, quite often depart from the original principles and introduce significant modifications thereto. In this sense, any claims regarding 'clarifications' are misleading and must be approached with caution. The consultation paper also frequently uses the term 'update.' Allegedly, the ETA needs to be brought into line with the developments in this rapidly changing area of law.[8] As presented below, the solutions adopted by the ETA are by no means perfect and leave room for improvement. Some of the ETA's provisions would benefit from a 'clarification.' In this sense an 'update' is desirable. It can be doubted, however, whether the suggested CUECIC solutions constitute an improvement or clarify anything. The CUECIC is newer – but not necessarily better. It can also be questioned whether the discussed area of law is 'changing rapidly.' Quite the opposite seems to be the case: after an initial flurry of activity in the 90's, it has become apparent that changes in communication technologies need not be necessarily accompanied by revolutionary changes to the law – at least not when it comes to contract law. In sum, one could question the necessity of 'updating' as well as the quality of the update itself.

Two further observations are required. *First*, the Attorney General suggests amending the ETA to reflect the solutions in the CUECIC to avoid creating a duality of regimes: one for domestic electronic transactions and another for international electronic transactions.[9] The side effect of this approach is the creation of a duality of regimes *within* Australian contract law itself: one for contracts formed by traditional means and one for contracts formed by electronic means. This is so despite frequent declarations to the contrary. Both the explanatory notes to the CUECIC and the Consultation Paper emphasize the need to avoid creating a parallel regime.[10]

Second, the regulatory effort seems outdated. Doubts about the legal viability of electronic transactions might have existed in 1995, when the National Science Foundation removed the prohibition to use the Internet for commercial traffic and networked transactions became a mainstream phenomenon.[11] It is questionable whether any doubts exist in 2008, when the volume of on-line retail transactions is counted in hundreds of billions. One might even question whether the ETA retains its original *raison d'etre*. After all, e-commerce thrived despite the alleged 'obstacles' to its development. It is therefore questionable whether – from a contract law perspective – there is a need for any further clarifications.

[6] Consultation Paper p 12
[7] Consultation Paper p 12
[8] Consultation Paper p 5
[9] Consultation Paper p 5
[10] Consultation Paper p 29, CUECIC Explanatory Note para [113] p 43
[11] K C Laudon, C G Traver, *E-Commerce: Business, Technology, Society*, Sydney 2001, p 113, 114

BACKGROUND

Both the ETA and the Convention are based on the 1996 Model Law on Electronic Commerce ('MLEC').[12] The latter provides a template for national legislatures and serves as a guide for drafting contracts in the area of electronic commerce. Its solutions exemplify early attempts to resolve legal uncertainties pertaining to electronic transactions. The MLEC applies to commercial actors only. Both the ETA and the Convention, however, diverge from the original wording of the MLEC – the ETA by changing some of the mechanisms prescribed by the model law, the Convention by changing *and adding* certain important provisions.

The CUECIC combines most of the MLEC's wording with some of the approaches adopted by the UNCITRAL Convention on Contracts for the International Sale of Goods (CISG), especially in terms of scope of application, principles of statutory interpretation and declarations of variations by the ratifying countries.[13] While the MLEC seems to be the common denominator of both the ETA and the CUECIC, the latter tilts towards some of the solutions adopted by the CISG. Unlike the MLEC and the Convention, which apply to commercial actors only, the ETA also applies to consumers and to dealings with the government. The exact scope of its application depends on the definition of 'laws of the commonwealth,' i.e. whether it is limited to the laws passed by the Commonwealth or includes common law and the rules of equity.[14]

All of the above regulations aim to facilitate on-line commerce and remove 'obstacles' to the validity and enforceability of on-line contracts by (a) providing that electronic contracts are equally valid as 'traditional' contracts, and (b) establishing criteria for the fulfillment of the requirements of 'writing,' 'signatures' and 'originals' in electronic form.[15] Their guiding principle is that any discrimination on the sole basis that a contract originated in electronic form is prohibited.[16] It could be claimed that *some* of the problems they are trying to address are non-existent[17] and that provisions that contracts can be formed electronically merely state the obvious.[18] After all, the electronic form does not pose an obstacle to valid and enforceable on-line transactions as the substantive rules of contract law permit intention to be manifested in *any* manner.[19] There being no general requirement for contracts to be in writing or to be signed, formal requirements are an exception not the rule.[20] The more so, that most transactions that are accompanied by formalities are specifically excluded form the scope of the regulations.[21] To repeat the point: the absence of traditional 'writing' and 'signatures' does not threaten the validity or enforceability of contracts or pose an obstacle to their formation on-line. A simple prohibition to discriminate on the basis of 'electronic' form would have sufficed to appease those uncomfortable with transactions concluded by electronic means. Anything beyond that seems an unnecessary repetition of the obvious. The aim of this article, however, is not to discuss contract formalities but contract formation.

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[12] UNCITRAL Model Law on Electronic Commerce with Guide to Enactment (1996) with additional article 5 *bis* as adopted in 1998, developed by the UN Commission on International Trade Law.

[13] For a detailed description of the procedural and international aspects of CUECIC see: Ch H Martin, *The UNCITRAL Electronic Contracts Convention: Will it be Used or Avoided?* (2005) 17 Pace Int'l L Rev 261

[14] S Christensen, *Formation of Contracts by Email – Is it Just the Same as the Post?* (2001) 1 QUTLJ 22 at 24, citing *R v Kidman* (1915) 20 CLR 425 and *Jackson v Gamble* [1983] 1 VR 552 at 559 per Young CJ; P Knight, *The Electronic Transactions Bill 1999* (2000) 6 CTLR 105 at 105; Electronic Transactions Bill 1999, Explanatory Memorandum, p 21

[15] the objectives and scope of the MLEC are described in detail in the *'Introduction*' to the Guide to Enactment, paras 2-21.

[16] MLEC Art 5; CUECIC Art 8; ETA Section 8

[17] J Braucher, *Rent-Seeking in the New Statutory Law of Electronic Commerce: Difficulties in Moving Consumer Protection Online* (2001) Wis L Rev 527 at 527

[18] A DeZilva, *Electronic Transactions Legislation: An Australian Perspective* (2003) 37 Int'l Law 1009 at 1012

[19] *Carter on Contract* [02-060]

[20] *Carter on Contract* [01-001]

[21] CUECIC Explanatory Note para [7] p 14

A RECOUNT OF BASICS

As a point of departure, it is worthwhile recalling some substantive principles of contract law. The latter tend to be forgotten or distorted whenever transactions are concluded by means of emails and websites. The importance of 'classic' contract law cannot be overstated. After all, '[a]lmost every question posed by business dealings in cyberspace can be reduced to a question involving contract law.'[22]

It is a common misconception that electronic transactions are somehow different and that the traditional principles of contract law do not apply in 'cyberspace.' This misconception is best illustrated by theories aiming at modifying the analytical approach based on 'offer and acceptance.'[23] Throughout the discussion it must be remembered that despite the differences in how statements are exchanged, the ground rules remain the same: intention, consideration, as well as certainty and completeness, are required for contracts formed electronically and for contracts formed by traditional means. In electronic transactions consideration may take an unusual form, such as the permission to study one's browsing behavior. Certainty and completeness may be difficult to discern from multiple interactive screens connected by hyperlinks. Both on-line and in the real world, however, the intention of the parties remains paramount.[24] Intention is attenuated by the objective theory of contract[25] and based on an assessment of what the parties said or did.[26] A common way of evaluating intention is by means of the offer and acceptance model.[27] Whether a particular communication is an offer or an acceptance is determined on the basis of the rules governing the construction of communications. The labels of 'offer' and 'acceptance' are placed on specific words, documents or conduct to determine the existence of agreement, the moment of formation and the contents of the contract.[28] Those rules apply regardless of whether a statement is expressed by means of written documents, websites or email messages.

THE 'PROBLEM' OF AUTOMATION

Recommendation 6 states:

> *a) The ETAs should incorporate a provision to clarify the validity of contracts resulting from the use of automated message systems, and*
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> *b) The ETAs should incorporate a definition of 'automated message system' meaning 'a computer program or an electronic or other automated means used to initiate an action or respond to data messages or performances in whole or in part, without review or intervention by a natural person each time an action is initiated or a response is generated by the system.'*

The above recommendation implies that the validity of contracts formed by automated means can be questioned. The alleged problem of 'automated contracting' – usually couched in the term 'electronic agent' - has been the subject of multiple articles published in the 90's, i.e. during the initial fascination

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[22] E A Cavazos, G Morin, *Cyberspace and the Law: Your Rights and Duties in the On-line World*, Cambridge 1994, p 34

[23] See e.g. M P Furmston, *Cheshire, Fifoot andFurmston's Law of Contract*, 14th ed, London 2001:'[A] new contract formation rule may emerge for electronic transactions – the 'last act' rule whereby the last act is equivalent to acceptance.' [3.44] See also the preparatory works of the UNCITRAL Working Group IV on Electronic Commerce, which lead to the adoption of the CUECIC. It was debated whether electronic contracting requires the developments of new rules or whether the rules applied to traditional contracts can respond to the needs of novel communication techniques. A/CN.9/WG.IV/WP.91

[24] *Paal Wilson & Co A/S v Partenreederei Hannah Blumenthal* [1983] 1 AC 854 at 917

[25] *Carter on Contract* [01-090]; M P Furmston ed, *The Law of Contract*, London 1999; para 2.8

[26] *Carter on Contract* [02-040]; see also: J M Perillo, *The Origins of the Objective Theory of Contract Formation and Interpretation* (2000) 69 Fordham L Rev 427; as per Lord Diplock in *Paal Wilson & Co A/S v Partenreederei Hannah Blumenthal* [1983] 1 AC 854 at 915

[27] *Carter, Peden &Tolhurst* [3-02] p 37

[28] R Craswell, *Offer, Acceptance and Efficient Reliance* (1996) 48 Stan L Rev 481 at 482; *New Zealand Shipping Co Ltd v A M Satterwaite & Co Ltd, The Eurymedon* [1975] AC 154

with e-commerce and the theoretical turmoil that accompanied it.[29] It is somewhat surprising, however, that automation could be regarded as an 'uncertainty' in 2008.

E-commerce is based on automated mass-market transactions.[30] Goods are ordered by means of email messages, order forms and virtual shopping carts.[31] Customers browse through menus and select products by clicking their images or descriptions.[32] After providing shipping and payment data, websites calculate the price and shipping costs. Finally, confirmations presenting the items ordered and the total price are displayed or sent to the relevant email accounts. The described interactions are not the result of back-offices with hundreds of employees answering emails, checking the contents of virtual shopping carts and order forms. Websites are interfaces to complex, multi-tiered systems consisting of servers, networking equipment and databases.[33] Accordingly, websites epitomize automation. They also fit perfectly under the definition of 'automated message system' provided by the CUECIC.[34]

The consultation paper emphasizes that the lack of human intervention should not preclude valid contract formation.[35] Similarly, UNCITRAL's explanatory note elaborates that the critical element in the concept of automation is the 'lack of human actor on one or both sides of the transaction.'[36] It is, however, a logical shortcut to imply that there is no 'human involvement.' Websites do not 'self-initiate.' There is a human person who sets up, controls, operates a website.[37] Technological complexity aside, automation does not change the fact that it is the human user who creates and controls the website.[38] The latter is nothing but a 'booking clerk in disguise.'[39] It is pre-programmed and executes a set of instructions given by a human person.

Leaving aside the alleged 'lack' of human involvement, the necessity to validate automated transactions can be questioned on another ground. Contractual intention can be manifested in any manner – including that of placing an HTML file on a web-server for general access.[40] Anticipating arguments that there is no human intention *at the moment* of contract formation, it must be emphasized that the minds of the parties need not meet in perfect simultaneity.[41] Accordingly, intention persists as long as the website is held out. Despite the absence of direct human involvement at the time of formation, intention can be

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[29] see e.g: T Allen, R Widdison, *Can Computers Make Contracts*? (1996) 9 Harv J Law & Tech 25 ('*Allen & Widdison*'); Ch C Nicoll, *Can Computers Make Contracts* (1998) JBL 34; L E Wein, *The Responsibility of Intelligent Artifacts: Towards and Automation Jurisprudence* (1992) 6 Harv J Law & Tech 103, see also J H Sommer, *Against Cyberlaw* (2000) 15 Berkeley Tech L J 1145 at 1178

[30] W Ford, M S Baum, *Secure Electronic Commerce, Building the Infrastructure for Digital Signatures and Encryption*, 2nd ed, New Jersey, 2001 p 30

[31] W A Effross, *The Legal Architecture of Virtual Stores: World Wide Web Sites and the Uniform Commercial Code* (1997) 34 San Diego L Rev 1263

[32] P Loshin, J Vacca, P Murphy, *Electronic Commerce, On-line Ordering and Digital Money*, Hingham 2001, p 397

[33] For a more detailed description of e-commerce architectures see: G P Schneider, J T Perry, *Electronic Commerce*, Cambridge 2001, p 64, 65

[34] See definition in CUECIC Art 4: 'a computer program or an electronic or other automated means used to initiate an action or respond to data messages or performances in whole or in part, without review or intervention by a natural person each time an action is initiated or a response is generated by the system.'

[35] Consultation Paper p 23, point 3.8

[36] CUECIC Explanatory Note para [104], p 40

[37] J-F Lerouge, *Symposium: UCITA: The Use of Electronic Agents Questioned Under Contractual Law: Suggested Solutions on a European and American Level* (1999) 18 J Marshall J Computer & Info 403 at 405

[38] T Allen, R. Widdison above at note 30 at 46

[39] *Thornton v Shoe Lane Parking Ltd* [1971] 2 QB 163 at 169

[40] At a basic level, each website is the product of a file written in the hypertext mark-up language, or HTML, which is hosted on a webserver.

[41] *Kennedy v Lee* (1817) [citation]; 36 Eng RepER 170 (Ch 1817); J M Perillo, *The Origins of the Objective Theory of Contract Formation and Interpretation* (2000YEAR) 69 Fordham L Rev 427 at 439, 440

traced back to an earlier moment.[42] Websites do not make their 'own' decisions, but execute earlier human decisions within the limits of pre-set parameters.[43]

Automation comports with the objective evaluation of contractual intention and with the possibility to express such intention in any manner. There is no need to confirm the admissibility of contracting via automated means, just as there was no need to confirm and regulate contracts concluded with the help of vending machines. The latter could raise the exact same set of theoretical objections as websites. To 'regulate' or 'validate' automated transactions is to imply that there is a problem where none exists. Accordingly, the current ETA can be praised for *not* introducing any provisions 'validating' automation. Automated contract formation is admissible on the basis of general principles – without the need for further clarifications or confirmations.

'ELECTRONIC MISTAKES'

Recommendation 7 states:

> *a) The ETAs should incorporate article 14 of the Convention offering the right to withdraw the portion of the electronic communication in which an input error was made if the automated message system does not provide the person making the input, or the party on whose behalf that person was acting, with an opportunity to correct the error, […]*

The problem of 'input errors' continues the thread of 'automation.' While the possibility to use automated systems for contract formation need not be confirmed, it must be admitted that automation may create problems for the person dealing *with* the automated system, for example, the person who visits an e-commerce website. This scenario addresses another aspect of automation: one party sets up a website, i.e. uses an automated system, the other party interacts with this system. The article aims at protecting the latter, while "errors" or "malfunctions" from the side of the electronic agent seem to be dealt with indirectly by recommendation 5 (see below). The proposed mechanism constitutes a subtle modification of the contract formation procedure. Its evaluation must be approached from two angles: practical and theoretical.

From a practical perspective, the solution must be applauded. It implicitly recognizes the perceptual difficulties that might be created when communicating via a website. Accordingly, it is not automation *per se* that is the source of potential difficulties. It is the fact that the person who sets up a website prescribes the manner in which the other party manifests his or her intention. The person transacting 'with' a website can only follow the options permitted by the interface, i.e. the graphical layout of icons and links. The manner of expression is limited. Unlike in the case of a simple touch-screen ATM or ticket machine, there is more potential for confusion: more options to be selected and more 'mistakes' to be made.[44] In practice, Art 14 encourages the inclusion of so-called 'confirmation screens,' which effectively ask 'is this what you mean?' and provide an opportunity to correct errors from the side of the website visitor.[45]

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[42] M P Furmston, *Cheshire, Fifoot and Furmston's Law of Contract*, 14th ed, London 2001, p 29; *Carter on Contract* [01-090]

[43] R Nimmer, *Electronic Contracting: Legal Issues* (1996) 14 J Marshall J Computer & Info L 211 at 212; R Nimmer, *Contract Law in Electronic Commerce* (2000) 587 PLI/Pat 1127; see also UETA section 14 and comment 1 thereto: 'When machines are involved, the requisite intention flows from the programming and the use of the machine.' A similar view was expressed by A Liegl, P Brautigam, A Leupold, in: *Law of International On-Line Business, A Global Perspective*, London 1998, p 394

[44] CUECIC Explanatory Note para [225] p 73

[45] see also European Directive on Electronic Commerce Art 10.1 (c), which provides for a similar mechanism 'prior to the order being placed' by the consumer.

The solution appears slightly more complicated when approached from a theoretical perspective. Traditionally, parties are bound by their manifested intention and are not given the opportunity to retract previously made statements. Their motives to enter into a particular contract are irrelevant.[46] Only in very limited circumstances, for example, when an element of inducement or knowledge of the mistake is present, [47] can a mistaken belief of one party bear legal consequences. Both the Consultation Paper and the explanatory notes state that Art.14 is not intended to interfere with or alter the rules of mistake, especially regarding its consequences. Despite the intuitive association of 'input errors' with 'mistake,' the former do not easily fit under any of the popular scenarios relating to contractual mistake. After all, the suggested mechanism is designed to *prevent* mistakes, i.e. a discrepancy between *real* and *expressed* intention. If an opportunity to correct errors is provided, the right of withdrawal does not exist and any 'errors' are governed by traditional principles.[48]

Short of situations where a website is intentionally designed to confuse customers, it may be difficult to accuse its operator of inducement or misrepresentation. It may be equally difficult to suspect that the operator should have known that the expressed intention of the customer does not correspond with his or her real intention.[49] No matter how good the design of the user interface, there will always be individuals prone to 'accidentally' clicking an icon or selecting the incorrect option form the drop-down menu. It must be admitted, however, that in certain circumstances the website vendor should know that the customer's request cannot be correct. To illustrate the point: while shopping for clothes, the customer selects 222 shirts. An order for 2 shirts is normal, 22 may raise some eyebrows but 222 is an obvious error – at least on a retail website. This must be contrasted with situations where the customer selects the incorrect color or size of a shirt. In the latter scenario, the element of implied knowledge of the mistake is absent. The latter scenario also illustrates the potential for abuse on the side of the website customer: absent an opportunity to correct he or she may still withdraw the relevant portion of its statement – not because he made an error but because he changed his mind. With regard to the first scenario, it must be noted that even absent a confirmation screen, the input error will become apparent to the customer once payment information must be provided. Whenever payment is required, the practical necessity of confirmation screens may therefore be limited.

It is unclear, why Art.14 endorsed the 'right to withdraw' the relevant portion of the statement, instead of opting for the 'right to correct' the original statement. One would have assumed that the provision of an opportunity to correct errors by the website operator, would be mirrored by a right to correct errors on the side of the visitor. In practice, the partial withdrawal of a statement may deprive it of the necessary certainty and completeness thereby effectively giving the party 'in error' a right to prevent the contract from coming into being. The 'right to correct' appears more suitable to uphold the transaction – despite the initial error. The 'right to withdraw' translates into a rescission of the contract on the basis of a technicality and may open the door to abuses.

AN UNNECESSARY PRESUMPTION

Recommendation 5 states:

> *The ETAs should incorporate a provision that proposals to enter into a contract made by electronic means to the world at large are to be treated as an invitation to make offers, unless there is a clear indication by the trader of an intention to be bound.*

The recommendation is based on CUECIC Art. 11, which establishes a presumption that websites are invitations. [50] The purpose of the suggested amendment is described as a clarification of the extent 'to

[46] *Carter, Peden & Tolhurst* [20-06]
[47] *Hartog v Colin & Shields* [1939] 3 All ER 566; *Taylor v Johnson* (1983) 151 CLR 422
[48] CUECIC Explanatory Note para [233] p 75
[49] *Carter, Peden & Tolhurst* [20-13], see also CUECIC Explanatory Note para [227] p 74
[50] CUECIC Article 11 reads:

which parties offering goods or services through open, generally accessible communication systems, such as a website, are bound by advertisements made this way.'[51] This statement relies on the fallacy that all websites are advertisements. It also exemplifies an attempt to modify traditional principles while disguising it as a 'clarification.'

Offers indicate a willingness to enter into a contract without further negotiations. They bind the offeror and can be accepted by a simple 'yes.'[52] Offers are distinguished from invitations to treat ('invitations'), which are non-binding indications of a general willingness to contract.[53] The distinction depends *exclusively* on the intention of the maker of the statement and is inferred from the words in the context in which they are used. Offers can be accepted by a *single* act of acquiescence because they contain all the contents of the contract, i.e. they are certain and complete. [54] Invitations lack the required completeness and can be regarded as requests to submit offers. Being non-binding by nature, they give the maker of the statement the ultimate choice whether to contract or not.[55]

Invitations also shield the maker of the statement from the risk of 'over-acceptance,' i.e. the inability to perform when the number of acceptances exceeds the number of items on stock.[56] Accordingly, designing one's market appearance as an invitation serves protective purposes. The 'protective' function of invitations was also highlighted in the consultation paper.[57] It can be assumed that this emphasis derives from a number of cases where a website displayed incorrect pricing information and the vendor was obliged to sell its goods at the incorrect, heavily discounted price. In this sense, the proposed provision seems to be a protective mechanism against computer errors, which are another side effect of automation. As one author commented on e-commerce: 'the speed with which a retailer can lose several million pounds can be matched in no other retail medium.'[58] Examples abound: in its on-line shop, Argos offered television sets on sale for £ 2.99 instead of 299.99;[59] Eastman Kodak advertised a digital camera on their UK website at £ 100 rather than £ 329;[60] Digilandmall.com offered professional printers for 66 S$ instead of S$ 3000.[61]

CUECIC Art 11 states a default rule that manifestations of intention in the form of websites are not binding. It is, however, impossible to mechanically subsume all websites under either category on the mere ground that they are *websites*.[62] Such attempts were already made during the preparatory works for the CUECIC. Websites should be regarded as invitations because they are 'like advertisements' and they

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'A proposal to conclude a contract made through one or more electronic communications which is not addressed to one or more specific parties, but is generally accessible to parties making use of information systems, including proposals that make use of interactive applications for the placement of orders through such information systems, is to be considered as an invitation to make offers, unless it clearly indicates the intention of the party making the proposal to be bound in case of acceptance.'

[51] Consultation Paper p 21, point 3.3

[52] *Carter on Contract* [03-001]

[53] M P Furmston ed, *The Law of Contract*, London 1999 para 2.193

[54] *May and Butcher Ltd v R* [1934] 2 KB 17n

[55] *Esso Petroleum Ltd v Customs and Excise Commissioners* [1976] 1 WLR 1 at 11

[56] *Grainger & Son v Gough (Surveyor of Taxes)* [1896] AC 325 at 334; *Partridge v Crittenden* [1968] 2 All ER 421; proposal likely to be considered an invitation, if it does not limit quantity, see: *Kelly v Caledonian Coal Co* (1898) 19 LR (NSW) 1

[57] Consultation Paper p 22, CUECIC explanatory note [204], p. 67

[58] Ph Rees, R Calleja; *News Update – E-commerce – Offers you can't refuse*, (2002) 3 IJECL & P Ecom 1.4 at 1

[59] D Thompson, *Contracting over the Internet – Argos's Failure to honour Internet Orders* (2000) 53 IJECL & P Ecom 1.1 at 1

[60] Ph Rees, R Calleja, above at note 59 at 1

[61] *Chwee Kin Keong v Digilandmall.com Pte Ltd* [2004] SGHC 71

[62] Squires, *Some Contract Issues Arising from Online Business-Consumer Agreements* (2000) 5 Deakin LR 95 at 104; see also *Treitel* p 12, who states that where a supplier indicates the availability of goods or services on a website, 'the offer would seem to come from the customer (e.g. when he clicks the appropriate 'button') and it is open to the supplier to accept or reject that offer.' *Chissick & Kelman* p 75

are addressed to the world at large.[63] It was also observed that: '[i]nternet transactions may not easily fit into the established distinctions between what might constitute an 'offer' and what should be interpreted as an 'invitation to treat.'[64] This statement illustrates a common misunderstanding.

First, to claim that Internet transactions do not easily fit the traditional analytical model implies that real-world transactions do. This is obviously not the case. Most difficulties in transposing the offer and acceptance analysis to novel transacting scenarios result from the fact that it is a *model*. Applying models against real-life situations is inherently difficult. The difficulties are more pronounced in the case of on-line transactions because manifestations of intention often take an unusual form.

Second, the 'distinctions' between offers and invitations are by no means 'established.' The treatment of certain stereotyped situations as indications of final intention is inconsistent and does not provide universal rules. Although the interpretation of certain kinds of expressions appears standardized,[65] care must be taken not to generalize.

Third, it appears contrary to the spirit of practically all model regulations to introduce media- (or technology-) specific rules. After all, both the CUECIC[66] and ETA[67] build on the concept of media neutrality and abound with declarations to this effect.[68] The creation of a presumption in relation to websites contradicts this very concept. Why should a statement made on a website be interpreted any differently than the same statement made in a newspaper or verbally? It is the *content* of a statement, not the *method* of its communication that must be analyzed to determine its legal effect. Websites are subject to the same rules of construction like any other manifestations of intention. The fact that a statement is posted on a website must not automatically prejudice the outcome of the analysis. A website must be approached like any other manifestation of intention.[69]

The Convention also proposes criteria that determine whether a website is an invitation or an offer: interactivity and number of addressees.[70] From a theoretical perspective, however, neither criterion is admissible. The binding character of a website cannot depend on the degree of interactivity.[71] The presence of an interactive interface does not imply that the terms are certain and complete. While 'passive' websites require additional steps to contact the merchant and may not enable the formation of the contract on-line, they may be construed as an offer if a contract can be formed exclusively on the basis of their contents. The absence of interactivity does not imply that the website's contents are not sufficiently certain and complete to be binding. Similarly, the legal character of a website cannot depend on the number of addressees. If an offer is made to the public at large the offeror becomes liable to the person who accepts, not to everyone.[72] It is trite law that the unlimited number of addressees does not preclude a statement from being binding.[73]

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[63] See: A/CN.9/WB.IV/ WP.91 paras 47, 48; A/CN.9/484 para 125

[64] A/CN.9/WG.IV/WP.95 para 53

[65] M A Eisenberg, *Expression Rules in Contract Law and Problems of Offer and Acceptance* (1994) 82 Cal L Rev 1127 at 1129

[66] CUECIC Explanatory Note [48], p 26

[67] see Consultation Paper p 21, point 3.2,

[68] See CUECIC Explanatory Note para [199] p 65: in keeping with the principle of media neutrality, on-line transactions should not be different from the solution in a paper-based environment.

[69] L Wilmot, S Christensen, D Butler, *Contract Law*, 2nd ed, Melbourne 2005 [3.4] [3.130]

[70] A/CN.9/WG.IV/WP.91 par 47

[71] The 'non-interactive'/'interactive' division is also mentioned in the CUECIC preparatory works. See: A/CN.9/WG.IV/WP.95 para 54. It was stated that websites containing interactive applications enable the immediate conclusion of a contract and may therefore be regarded as offers. It was not explained why the possibility to conclude a contract should predetermine the legal character of websites.

[72] *Carter on Contract* [03-020]; *Carlill v Carbolic Smoke Ball Co* [1893] 1 QB 256 at 268

[73] *Carter, Peden & Tolhurst* [3-08] p 42

One must also be carful when drawing wholesale comparisons of websites to other expressions of intention. Websites can be likened to virtual shop displays, mail-order catalogues, traditional advertising in mass media, which are routinely regarded as invitations.[74] Both advertisements and shop displays, however, may constitute offers if they are sufficiently certain to allow the inference of intention.[75] The fact that a website resembles an advertisement does not automatically preclude it from being binding. Websites can also be compared to vending machines, which are generally regarded as offers.[76] An intention to be bound is expressed by making the vending machine publicly available and delivering the product or service to *anyone* who inserts the required coin.[77] The resemblance to vending machines is particularly strong, whenever the delivery of a digital 'product' or service occurs directly on the website.[78] Whoever provides payment information or 'clicks' the appropriate button is provided with the service, be it remaining on the website, downloading software or obtaining another benefit. Provided the contents are certain and complete, the intention to be bound derives from the immediate ability to execute the transaction.[79]

Last but not least, the protective function of invitations is not necessarily required in e-commerce transactions as the risk of over-exposure can be prevented by technological means. Applications can be programmed not to accept orders of goods low on stock and dynamically change product information to reflect the number of items available. With digital products, such as the contents of the websites, the risk of over-acceptance is often absent altogether. The owner of a website can also protect him- or herself by explicitly stating that the website does *not* constitute an offer. A simple disclaimer may therefore be as effective as technological measures.

In sum, the introduction of a presumption unnecessarily prejudices the analysis and constitutes an alteration of well-established rules. The question is not whether websites are binding or whether they resemble other forms of expression, such as advertisements or vending machines. The question is whether the maker of a statement intended it to be binding.

THE TIME OF CONTRACT FORMATION

Recommendation 9 states:

> *(a) The default rules in the ETAs for timing of dispatch be amended so that:*
>
> > *(i) the ETA's formula for determining time of dispatch ('when it enters an information system outside the control of the originator') reflect instead the Convention's formula ('when it leaves an information system under the control of the originator') […]*
>
> *(b) The default rules in the ETAs for timing of receipt should be amended so that:*
>
> > *(i) the time of receipt of an electronic communication is the time when it becomes capable of being retrieved by the addressee at an electronic address designated by the addressee (an electronic communication is presumed to be capable of being retrieved by the addressee when it reaches the addressee's electronic address), and*

[74] M P Furmston ed, *The Law of Contract*, London 1999 para 2.196

[75] *Carlill v Carbolic Smoke Ball Co* [1893] 1 QB 256 at 262, see also *Lefkowitz v Great Minneapolis Surplus Store* 86 NW 2d 689 (Minn 1957); *Lexmead (Basingstoke) Ltd v Lewis* [1982] AC 225; see also M A Eisenberg, above at note 45 at 1167, 1168, who criticizes the counter-intuitive nature of the construction rule that shop displays are invitations, as such rule cannot be based on the understanding of the reasonable addressee.

[76] *The Law of Contract* par 2.199; *Thornton v Shoe Lane Parking Ltd* [1971] 2 QB 163

[77] P S Atiyah, *An Introduction to the Law of Contract*, Oxford 1995 p 58

[78] A Endeshaw, *Web Services and the Law: A Sketch of the Potential Issues* (2003) 11 IJT & IT 251

[79] M P Furmston above at note 74 para 2.198

> *(ii) the time of receipt of an electronic communication at another electronic address of the addressee is the time when it becomes capable of being retrieved by the addressee at that address and the addressee becomes aware that the electronic communication has been sent to that address. […]*

Based on the offer and acceptance model, a contract is formed when an acceptance becomes effective.[80] In principle, effectiveness is tied to the receipt of a message containing the acceptance, whereas the exception – popularly known as the 'postal acceptance rule' – associates effectiveness with the moment of dispatch. Accordingly, 'receipt' is the main component of the principle, 'dispatch' - of the exception. Formulating the moment of 'receipt' or 'dispatch' must be distinguished from determining whether acceptances communicated by electronic means *become effective* on receipt or on dispatch. The latter question remains unresolved by both the ETA and the CUECIC.[81]

To date, neither 'dispatch' nor 'receipt' was analysed in terms of accessibility, legibility or ability to process. There was also no need to dissect the individual components of the communication infrastructure. Such analyses are required once contracts are formed by electronic means. In this sense, a clarification as to how to apply traditional principles in electronic transactions would be welcomed. As will be demonstrated, it seems doubtful whether the proposed solutions provide the desired clarification.

The formulation of 'dispatch' and 'receipt' raises two sets of problems. *First*, electronic communications are characterized by risks, which have no counterparts in traditional communications. Messages are not only transmitted but also *processed*. Each time processing occurs there is a risk that the contents of the message are interfered with and/or rendered illegible. There is also a higher risk of the message not reaching its intended recipient altogether. Accordingly, apart from establishing the *precise* time of contract formation, 'dispatch' and 'receipt' serve as tools of risk allocation. *Second*, due to the complexity of communication systems and multiplicity of terminating devices, it becomes more difficult to select the particular point where dispatch or receipt is deemed to occur.

When attempting to formulate the principles of 'dispatch' and 'receipt,' the implications of the terminology must be fully understood. There may be significant differences in the time of formation depending on whether a message 'reaches,' 'enters' or 'becomes available.' It is not only the network element or device that must be selected but also the verb, which describes the relationship between the message and the given element. The existence of the contract may hinge on the selection and/or construction of a single word.

THE TRADITIONAL PRINCIPLES

Dispatch is generally associated with 'posting': placing a letter in a letterbox of the postal service or handing it to a postal employee. [82] Upon posting, the offeree loses control and is not responsible for 'accidents happening at the post office.'[83] Postal communications involve at least two post offices and two mailboxes, the sender's and the addressee's. All these 'components' form *one* system, no distinction is made between the delivery of a letter to the post office or its placement in a mailbox in the street.[84] Accordingly, when an acceptance is effective on dispatch, *addressees* bear the risk of all accidents during the time letters remain in the *sender's* mailbox, as well as during their subsequent transfer to the *sender's* post office. Even if a letter is lost during these initial stages, acceptance is effective and a contract is formed. When the receipt rule applies, letters are received when they come into the addressee's

[80] *Carter, Peden & Tolhurst* [3-26] p 58

[81] EN [130] p 47; H D Gabriel, *The Fear of the Unknown: The Need to Provide Special Procedural Protections in International Electronic Commerce* (2004) 50 Loy L Rev 307 at 328; see also; *Carter on Contract* [03-430] on the lack of substantive rules regarding contract formation in the ETA

[82] *Carter on Contract* [03-350]

[83] *Household Fire and Carriage Accident Insurance Co Ltd v Grant* (1879) LR 4 Ex D 216 at 219

[84] *Corbin on Contracts*, vol 1 (1993) para 3.2

possession, or when they are deposited in a place held out for that type of communications.[85] It is not necessary that the letter be read or even opened.

Insight into the "traditional" rules governing dispatch and receipt can also be gained by analyzing communications via telex and telegram. Although neither is in wide use today, both telex and telegram illustrate the intricacies of establishing the precise time of contract formation when additional factors – such as intermediating machines – are included in the discussion. Although not strictly "electronic", they can also be regarded as examples of communication methods where the message is transmitted in paperless form, by means of electric impulses. In the case of telegrams, dispatch occurs at the telegraph office where the machine is located.[86] It is not clear whether the message must leave the machine or whether typing the message 'into' the machine suffices. Unlike telegrams, telexes can be received directly in the office.[87] In the landmark cases *Entores Ltd v Miles Far East Corporation*[88] and *Brinkibon v Stahag und Stahlwarenhandelsgesellschaft mbH,*[89] the contracting parties operated their own telex machines.[90] No additional steps to send or access messages were necessary and there was no dependence on intermediaries. In *Leach Nominees Pty Ltd v Walter Wright Pty Ltd*[91] the telex machine used by the sender was operated by third parties. Acceptance was considered dispatched when the sender committed the message to a public telex operator, not when the message was sent from the telex machine.

Receipt is generally associated with the arrival of a message at the addressee's machine.[92] After business hours, may be deemed to take place only once the office is re-opened on the following business day.[93] The law deems certain occurrences as constituting receipt, presumably because they enable communication in the normal course of events. For receipt to occur, the addressee's terminating device need not be attended or maintained in working order. If the terminating device malfunctions due to the addressee's fault, the latter is deemed to have received the message or estopped from denying receipt. [94] Although *technically* the message is never received, a contract is formed. If, however, a communication failure is not the fault of the addressee, there is no receipt and therefore no contract.[95]

Existing principles relating to dispatch and receipt developed around simple communication scenarios. The ETA and the CUECIC attempt to transpose those principles onto a novel communication infrastructure and to electronically replicate the tests used for dispatch and receipt in paper-based communications.[96] This 'transposition,' however, is done without factoring in of a number of complicating factors.

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[85] See: CISG Art 24, which states that a message is received when it is delivered to the offeror personally, to the offeror's place of business or mailing address, or to the offeror's habitual residence. P Fasciano, above at note 11 at 997

[86] *Henkel v Pape* (1870) LR 6 Exch 7; *Bruner v Moore* [1904] 1 Ch 305; *Cowan v O'Conner* (1888) 20 QBD 640 at 642; *Brinkibon v Stahag und Stahlwarenhandelsgesellschaft mbH* [1983] 2 AC 34 at 38

[87] J D Gregory, *Receiving Electronic Messages: Eastern Power v Azienda Communale Energia & Ambiente* (1999-2000) 15 BFLR 473 at 480

[88] [1955] 2 QB 327

[89] [1983] 2 AC 34

[90] In both instances, the interactions were taking place between principals who operated their own telex machines, *Brinkibon v Stahag und Stahlwarenhandelsgesellschaft mbH* [1983] 2 AC 34 at 42

[91] (1986) 85 FLR 427 at 434

[92] *Tenax Steamship Co Ltd v Owners of the Motor Vessel 'Brinmes' (The Brinmes)* (1974) 3 All ER 88 at 93

[93] *Tenax Steamship Co Ltd v Owners of the Motor Vessel 'Brinmes' (The Brinmes)* (1974) 3 All ER 88; *Schelde Delta Shipping BV v Astarte Shipping Ltd (The 'Pamela')* [1995] 2 Lloyd's Rep 249

[94] *Carter on Contract* [03-410]

[95] *Entores Ltd v Miles Far East Corporation* [1955] 2 QB 327 at 333

[96] A/CN.9/528 para 149

TERMINATING AND ORIGINATING DEVICES

When communicating over the phone, fax or telex there is only *one* machine on each side of the communication channel. Only the *originating* and the *terminating* devices are taken into account, not the underlying communications infrastructure. Communication is from phone to phone or from fax-machine to fax-machine.

Most electronic communications, however, rely on the client-server architecture.[97] In the case of email, there are at least two originating devices (the sender's mail-client and the outgoing mail-server) and two terminating devices (the addressee's incoming mail-server and the mail-client). Is it the mail-client or the mail-server that should be taken into account? The decision has important implications for the time of contract formation, as there may be substantial delays between the moment a message arrives at the server and the moment it is transferred to the client. This is so despite the fact that the transmission process itself might be regarded as instantaneous. Accordingly, the precise time of formation depends on whether it is the server or the client that is selected as the relevant device.

To complicate matters, electronic communications involve multiple intermediaries. Some of them form part of the transmission channel, others can be regarded as belonging to the respective spheres of control of the sender or the addressee. Telecommunication carriers and the post are traditionally regarded as independent third parties, which constitute part of the communications infrastructure. The position of Internet Service providers (ISPs), which provide some of the infrastructure used by the contracting parties, is difficult to evaluate. It is equally difficult to decide whether a particular device should be regarded as an originating/terminating device or as part of the transmission infrastructure.

NOVEL RISKS

Electronic communications introduce a number of novel risks. The Internet is not like the post or the telephone. Despite its ubiquity, it does not (yet) have the uniformity of one global system. The Internet is heterogeneous - each of its component networks retains some individual characteristics.[98] Routing from one network to another may involve a conversion between the 'idiosyncrasies of the two original networks'[99] and require the trans-coding, translation or reformatting of messages. Each of these operations aims to adapt the message to the requirements of the next step in the transmission. Such conversions are, however, not always successful. As a result, there are many reasons an email may not be delivered or be delivered in unreadable form.[100] Some risks have equivalents in traditional communications and are comparable to technical failures or bad maintenance. Others are novel. It is difficult, for example, to find paper-based analogies for 'wrong protocol version' or 'failure in trans-coding.'

Each of the risks, both old and new, must be allocated to one of the contracting parties. Some broad assumptions must be made: there are only two possible risk-bearers, the sender and the addressee. Intuitively, risks relating to dispatch should be borne by the sender, risks relating to receipt - by the addressee. At a more detailed level: (a) risks that can be prevented or mitigated by a party should be borne by that party, for example, each party should be responsible for the part of the infrastructure it owns or

[97] The Internet provides a general-purpose infrastructure that permits applications on an arbitrary pair of computers to exchange information. One application must initiate this process, whereas the other must accept it. This is the so-called 'client-server paradigm' of interaction. The application that actively initiates contact and requests a particular service or resource is called *client*, the application passively awaiting such requests and providing services or resources on demand is called *server*. In general, clients reside locally on the user's computer and are directly invoked by such user, whereas servers run on more powerful remote computers. Information may pass in either or both directions. The terms 'client' and 'server' refer to applications or processes but are often used in relation to the computers that run those processes. For a detailed description see: D E Comer, *Computer Networks and Internets with Internet Applications*, 4th ed, New Jersey 2004, p 422

[98] RFC 1122, *Requirements for Internet Hosts – Communication Layers*, R Braden, ed, (1989)

[99] G Brookshear, *Computer Science, An Overview*, Boston 2004 p 138

[100] For a detailed description see: RFC 3463 'Enhanced Mail System Status Codes' (2003) G Vaudreuil

controls; (b) intermediaries who remain in a contractual relationship with one of the parties should belong to this party's sphere of control, i.e. the risks inherent in their operation should be borne by this party; (c) the *earlier* the risk is transferred from the sender, the *sooner* it is borne by the addressee.

With this in mind, the solutions in the ETA and the CUECIC must be examined.

Dispatch

According to ETA Section 13 (1) dispatch occurs when a message 'enters a single information system outside the control of the originator.' According to section 13 (2) if a message 'enters successively two or more information systems outside the control of the originator,' dispatch occurs 'when it enters the first of those information systems.'

The first key element in the above formula is 'Information system.' The latter is defined as 'a system for generating, sending, receiving, storing or otherwise processing data messages.'[101] It is unclear whether 'information system' refers to clients, servers or the whole network.[102] *By definition*, messages travelling over the Internet pass through multiple information systems. ETA does not explain the relationship between these successive systems. Similarly, the concept of *single* information system does not facilitate the distinction between mail-clients and mail-servers, or between mail-servers and the transmission environment.

The second key element is 'control.' Dispatch occurs when the sender loses control of the message. As with 'information system,' it is difficult to ascertain when such loss of control occurs. Needless to say, this moment is strictly related to which part of the communication infrastructure is regarded as being under the sender's control. The mail-client is *on* the sender's computer and therefore under his or her control.[103] Mail-servers, however, are generally provided and operated by ISPs. In those instances where senders do not operate their own mail-servers and choose an ISP to provide this service, the dispatch of the message from the mail-client could be intuitively associated with 'loss of control.' Accordingly, the moment of dispatch would depend on *who* controls the mail-server. This in turn raises a general question about the role of ISP - or intermediaries in general. Some intermediaries are chosen by the parties, others are implicit in the functioning of the communications infrastructure. Are ISPs like the post and mail-servers like mailboxes? It must be recalled that in those instances when the postal acceptance rule applies, the sender's risk ceases and 'transmission' commences when letters are placed in the mailbox. The mailbox constitutes part of the postal system. The latter is not considered as an agent of either the sender or the addressee but an independent third party.[104]

Mail-servers, however, are not mailboxes and ISPs are not independent third parties. ISPs are chosen by and remain in contractual relationships with senders, providing their part of the communication infrastructure. Although senders have no *technical* control over mail-servers, they must be taken to assume the risks of their operation (i.e. uptime, configuration, frequency of dispatch). After all, if 'dispatch' depended on the actual control of the mail-server and the outgoing ISP was not regarded as acting on the sender's behalf, the risks of operation of the *sender's* mail-server would be borne by the *addressee*. This in turn, would render the latter liable for any shortcomings in the sender's *choice* of ISP. It must also be remembered that technically, there is nothing preventing the sender from operating his or her own mail-server. In other words, the ISP is only providing a service that the sender could be undertaking him or herself. Only if Internet connectivity and mail-servers were provided *exclusively* by a single, *universal* telecommunications provider, such 'ISP' would bear more similarity to the post and the mail-server could

[101] ETA Section 5

[102] See: P Knight, *The Electronic Transactions Bill 1999* (2000) 6 CTLR 105 at 110

[103] For the sake of simplicity we disregard whether the sender uses a shared computer, e.g. in an Internet café. It is also irrelevant whether the mail-client takes the form of a browser, as in the case of web-mail, or a dedicated email application, such as Outlook.

[104] P Fasciano, *Internet Electronic Mail: A Last Bastion for the Mailbox Rule*, (1997) 25 Hofstra Law Rev 971 at 995; see also: S Williston, *A Treatise on the Law of Contracts*, 4th ed, vol 2, 1991 para 6:37

be regarded as part of the transmission infrastructure. Leaving the mail-client would be synonymous with loss of control, similar to placing a letter into a mailbox.

The Explanatory Memorandum to the Electronic Transactions Bill 1999 associates dispatch with the beginning of the electronic communication.[105] It also states that dispatch occurs when the message 'enters the originator's Internet service provider's system.'[106] This implies that in its current wording the ETA regards the sender's outgoing mail-server as remaining outside his or her control and associates the commencement of transmission with dispatch from the sender's mail-*client*. This approach, however, is inconsistent with the technical functioning of email: transmission commences when the outgoing mail-*server* introduces the message into the transport environment.[107] Most importantly, this proposition disregards the fact that the ISP has been chosen by the sender and does not constitute part of the general transmission infrastructure. The outgoing mail-server cannot be equated with a mailbox in the street.

The CUECIC replaces 'entry' with 'leave.'[108] As the definition of 'information system' is identical to the one in the ETA,[109] it remains unclear whether messages must leave the mail-client or the mail-server.[110] The proposed amendment must be praised for abandoning the unnecessary distinction between *first* and *second* information system. Neither the CUECIC itself nor its explanatory notes, however, deal with the role of ISPs. Quite the opposite: the explanatory notes emphasize that the Convention does not deal with intermediaries.[111] As a result, the proposed 'update' does not clarify the most important issue: when does loss of control occur?

Receipt

ETA Section 13 (3) states that in the case of designated information systems, receipt occurs upon entry. If no system was designated, receipt occurs when the message comes to the addressee's attention.

The term 'information system' plays a crucial role again. As in the case of dispatch, it is not clear whether a message should enter the addressee's mail-server or mail-client. Given the breadth of the definition of 'information system,' entry could relate to a whole network or to one machine. A broad meaning implies an early cessation of the risks borne by the sender. To illustrate the point: if 'information system' means 'network,' entry occurs when a message enters any *first* point considered as belonging to the network.[112] Once inside, the sender would not bear the risks of any occurrences within the network, including protective measures placed before the mail-server (for example, spam filters). A narrower meaning, however, exposes the sender to the risks occurring within the network – until a specific machine or point in the network is reached.

The moment of receipt also depends on whether a message is sent to a designated or non-designated information system. The ETA Explanatory Memorandum presumes that designated systems are regularly checked for messages.[113] Absent designation receipt is tied exclusively to a subjective event – coming to the addressee's attention.[114] Accordingly, senders bear the risks inherent in the delay between the moment the message enters an information system and the moment it comes to the addressee's attention. The length of time during which the message remains on the mail-server (assuming for a

[105] Electronic Transactions Bill 1999, Explanatory Memorandum p 12
[106] Electronic Transactions Bill 1999, Explanatory Memorandum p 12
[107] RFC 2821, *Simple Mail Transfer Protocol*, J Klensin, ed, (2001) p 11
[108] CUECIC Art 10.1
[109] CUECIC Art 4 (g) compared to ETA Section 5
[110] A/CN.9/528 para 149: The preparatory works elaborate that information systems must be distinguished from 'information service providers or telecommunication carriers that might offer intermediary services or technical support infrastructure for the exchange of data messages.'
[111] CUECIC Art 4 (d), (e); EN 99, p 39
[112] The choice of computer network device would also depend on which layer of the TCP/IP protocol is examined.
[113] Electronic Transactions Bill 1999, Explanatory Memorandum p 12
[114] Electronic Transactions Bill 1999, Explanatory Memorandum p 12

moment that the mail-server is the information system) may be significant. During this period, the offer may still be withdrawn even if the acceptance is already within the addressee's sphere of control. Moreover, if the mail-server crashes due to a fault of the addressee (for example, due to bad maintenance), no receipt occurs. This constitutes an alteration of the traditional principles, where the malfunctioning of the terminating device due to the addressee's fault does not preclude receipt.[115] Moreover, traditional principles disregard any subjective elements on the addressee's side. Receipt is tied to an objectively ascertainable event – not to the addressee's state of mind.

According to CUECIC Art 10.2, receipt occurs when messages become 'capable of being retrieved by the addressee at an electronic address designated by the addressee.' Receipt at a non-designated address occurs when messages become 'capable of being retrieved by the addressee at that address and the addressee becomes aware that the message has been sent to that address.'

The CUECIC replaces 'information system' with 'electronic address,' remedying the difficulties implied by its broad definition. 'Electronic address' has a narrow meaning and points to a specific part of an information system: the storage area on a mail-server.[116] The CUECIC also replaces the term 'entry' with 'becoming retrievable.' This replacement supports the view that the relevant terminating device is the mail-server: it is the mail-server from which messages are being retrieved.

In the case of *non*-designated addresses, the objective component (capability of being retrieved) is supplemented by a subjective element (awareness). It is unclear why awareness relates to the message's *dispatch*, not receipt. It can be assumed that once the addressee knows that a message has been sent, he or she must monitor the relevant account for incoming communications – even if such account is not designated. 'Awareness,' however, raises problems of proof.[117] Surprisingly, 'awareness' was considered more 'equitable than holding the addressee bound by a message sent to an information system that the addressee could not reasonably expect would be used in the context of its dealings with the originator or for the purpose for which the data message had been sent.'[118] At the same time it was admitted that 'awareness' gives power to the addressee to effect receipt and places a heavy evidential burden on senders.[119] Considering the vagueness of 'designation,' (see below) in many instances receipt could exclusively depend on 'awareness.' This would constitute a significant alteration of the traditional principles which regard 'receipt' as an objective event, unrelated to any subjective occurrences on the addressee's side.

To complicate matters further, messages are presumed to be capable of being retrieved when they *reach* the addressee's electronic address.[120] It is interesting to note that, technically, the 'capability of being retrieved' points to a later stage in the transmission process than the original term used in the MLEC, 'entry.' Messages must first 'enter' an information system, or electronic address, before becoming 'retrievable.' The presumption, however, associates 'retrievability' with an event that *precedes* 'entry.' The CUECIC disregards the fact that messages may reach an electronic address or particular network but be rejected by a protective measure, therefore never becoming retrievable. After all, spam filters, firewalls

[115] *Carter on Contract* [03-410]

[116] Electronic addresses generally refer to accounts on mail-servers. One mail-server can host multiple accounts. Multiple mail-servers may be part of the same information system. This can be explained by looking at the structure of an email address. The latter consists of a character string identifying the individual account, the symbol @ and the name of the mail-server that should receive the message. The name of the mail-server is specific to the domain in which it is located, i.e. the network to which the server belongs. The second part of an email address could be regarded as pointing to an information system, whereas the first part as indicting an individual account. See Brookshear at note 100 at 141-142

[117] A/60/17 para 82 During the preparatory works it was admitted that the provision created legal uncertainty as 'awareness' is a subjective circumstance not easily proven by the sender. It was held, however, that awareness 'could be proven by other objective evidence'.

[118] A/CN.9/528 para 143

[119] A/CN.9/528 para 144

[120] CUECIC Art 10, see also CISG Art 18

and anti-virus software, operate on various points in the network.[121] Depending on the circumstances, messages may be precluded from entering the mail-server, the mail-client or the network. On one hand, according to the presumption, 'receipt' would occur despite such rejection – as long as the message reaches an address of information system.[122] On the other, a literal reading of Art 10, suggests that 'receipt' does not occur as the message does not become retrievable. In other words, the 'capability of being retrieved' may not be the effected by the message *reaching* an electronic address.

Additional problems are created by the term 'designation.' The practical implications of designating an address are far-reaching. There may be a significant delay between a message becoming retrievable and the moment an addressee becomes aware of its existence. 'Designation' can therefore make or break a contract. Despite its significance, however, 'designation' remains undefined.[123] The MLEC guide to enactment explicitly states that the mere indication of an email or telecopy address on a letterhead does not constitute designation.[124] One must ask: *what does?*

Problems of 'designation' do not arise in postal communications: there is usually one address per entity and a direct correlation between 'address' and 'mailbox.' Unquestionably, in larger companies each department or branch may have its own, physical mailbox. There is no division, however, into designated and non-designated mailboxes. If an address is made public as *the* address of a company or person, all letters sent to it are effective - unless specifically indicated otherwise in the offer. Distribution to the respective persons and departments is handled internally. 'Designation' obligates senders to investigate the correct address without imposing an equivalent obligation on addressees to clearly designate their systems. If a system is held out to receive communications, its designation should be implied. This would mirror the traditional rules of receipt. Under the regime created by the ETA and the CUECIC receipt may not occur even if an information system is held out – as long as it is not *expressly* designated. If addresses of particular information systems or accounts are disseminated or made public, addressees should not be permitted to claim that such systems or accounts are not designated. [125] How does designation occur absent a *specific* provision in the offer or prior communications, if not by providing an address or number? It appears questionable whether the development of special addressing rules facilitates on-line contracting.

CONCLUSION

Neither the ETA, not nor the CUECIC provide clarity or certainty in the field of on-line contract formation. Quite the opposite: CUECIC introduces further complications in an area, which is already blurred by the ETA. Both the ETA and the CUECIC illustrate the difficulties of creating universal and easily applicable solutions to the problems created by the use of modern communication methods in the formation of contracts. Even small inconsistencies in the formulation of a provision can send ripple effects across the well-established regime of contract formation principles. Their effect can be best described as interference – if not confusion.

The rule that intention may be manifested in any manner holds true both in the real world and on-line. The legal effect of a statement depends on the intention of its maker – not on the method of

[121] C Hunt, *TCP/IP Network Administration*, 2nd ed, Sebastopol 1997, Chapter 12

[122] A/CN.9/528 para 80, concerns were expressed over technologies restricting receipt. For general discussion see: Ch H Martin, *The UNCITRAL Electronic Contracts Convention: Will it be Used or Avoided?* (2005) 17 Pace Int'l L Rev 261 at 294

[123] It was stated difficulties in applying Section 15 cannot be overcome by defining 'designated information system. A/CN.9/528 para 148, see also EN [187] p 63

[124] MLEC Guide to Enactment para 103

[125] See: D Giles, *You've Got Mail….or Have You?* (2000) 3 Internet Law Bulletin 12 at 14, who suggests that to avoid the consequences of designation people may use disclosures like 'nothing in this email constitutes designation for the purposes of….' See also: *Carter on Contract* [03-430], where it is assumed that the designation of an information system is synonymous with the provision of an email address.

manifestation. For those seeking comfort in regulations, a mere declaration to the effect that electronic contracting is legally admissible should suffice. One must ask: is it worthwhile confirming that something is possible if such possibility clearly derives from the basic principles of contract law?

It is unquestionably more difficult to apply the offer acceptance model to websites and clicks, than it is to a formalized exchange of paper documents. It is also more difficult to examine the time of formation in relation to communications based on the client-and-server paradigm. The latter renders it difficult to apply principles, which developed around postal communications. These difficulties do not imply, however, that a change in the legal principle or a regulation of contract law is necessary.

The validation of automated transaction is not necessary, the creation of a presumption that websites constitute invitations to treat is theoretically incorrect. The recommendation dealing with input errors recognize the cognitive difficulties of web-based transactions but fail to follow through with a theoretically correct solution thereby creating opportunities for abuse.

A closer look at the solutions proposed by the CUECIC and the ETA in relation to 'dispatch' and 'receipt' reveals their inability to deal with even the most basic communication scenarios. They seem to favor a principle based on the actual control of the communication infrastructure. Their verbatim reading implies that it is the mail-client that must be taken into account when determining the moment of dispatch. At the same time, 'receipt' is associated with 'availability,' which in turn points to the addressee's mail-server. Consequently, the mail-server is separated from the mail-client in the case of dispatch but treated as one device for the purposes of receipt: dispatch occurs when a message leaves the mail-*client* but is received when it reaches, or enters, the mail-*server*.

The role of ISPs is difficult to ascertain. The ETA and the CUECIC seem to treat ISPs like the post, i.e. as part of the transmission infrastructure. It is forgotten that – unlike the post – the sender may run his own mail-server and also has a choice in the selection of ISPs. It remains unclear whether the mail-server is regarded as part of the transmission channel or as a terminating or originating device. A technically correct approach would treat mail-clients and mail-servers are *one* device, i.e. disregard message transfers between mail-clients and mail-servers.

The combined effect of the suggested amendment creates a separate regime for contracts formed by electronic means. It is debatable whether such duality promotes certainty and predictability. Contract law can absorb technological change[126] without the need for special rules, presumptions or parallel regimes.

[126] L Lessig, *Code and other Laws of Cyberspace*, New York 1999, p 78, 79; Y Benkler, *Net Regulation: Taking Stock and Looking Forward* (2000) 71 U Colo L Rev 1203.