CHAPTER-1

RESOLVING THE ANOMALY IN CONTRACT FORMATION UNDER THE UNCITRAL RULES AND THE COMMON LAW

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I INTRODUCTION

Consider the following hypothetical, yet realistic, scenario. Assume that A accepts O's offer by email, email being an agreed form of communication between the parties and the respective email addresses being designated by the parties for the purposes of the transaction. The email reaches O's email address, upon which A receives a delivery notification. Assume that the two email addresses form part of two separate information systems.[1] Assume also that O had previously set up a filter such that all email communications containing the word 'offer' in the subject line are automatically deleted on a permanent basis. This was done by O with the hope of reducing spam, *albeit* O's filtering rules were far more stringent than the usual spam filters available in popular email clients.[2] Assume further, that because A's email acceptance contained the word 'offer' in the subject line it was automatically deleted after it reached O's email address. In effect, although the acceptance email did reach O's designated email address, O was completely unaware of the acceptance. In these circumstance, could it be said that a contract has come into existence between A and O?

In this chapter, we respond to the above question from a common law perspective, but within the framework of the 2005 United Nations Convention on the Use of Electronic Communications in International Contracts ('the Convention'), which the United Nations Commission on International Trade Law ('UNCITRAL') prepared with the aim of supplementing the 1996 UNCITRAL Model Law on Electronic Commerce ('the Model Law'). We aim to demonstrate that the application of the two international instruments and the common law principles on the formation of contracts to the hypothetical scenario set out above gives rise to inconsistent outcomes that must be avoided. We conclude by proposing a modest,

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[1] This would be the case where the contracting parties use two different email service providers (e.g. Gmail and Outlook).

[2] Ordinarily, filters that can be created in email clients such as Outlook or Gmail permit users to set up rules that result in emails identified as spam being automatically transferred to the spam or trash folder when they arrive. Moving emails to spam or trash, however, does not permanently delete those emails. In order to permanently delete emails in the spam or trash folder they must be manually deleted. Although this is how filters in email clients such as Outlook or Gmail work, that does not mean that a filter cannot be set up in such a way that identified spam emails are permanently deleted without being stored in an intermediate folder. The hypothetical scenario we have chosen envisages a filter of the latter kind, which although extreme, is not entirely impossible.

yet effective, amendment to the Convention, which could set aside any uncertainty and provide greater consistency between the legal and technical dimensions of contract formation.

II FORMATION OF CONTRACTS UNDER THE COMMON LAW

Consensus ad idem or assent, is the basis for a legally enforceable contract under the common law. In determining assent, however, common law courts focus on the external appearance of a transaction in view of the difficulty in ascertaining with any certainty the subjective intent of the contracting parties. As a wise judge once said "the intent of a man cannot be tried, for the devil himself knoweth not the mind of men."[3] As such, the standard that is adopted in determining assent is an objective one where courts are "concerned not with the presence of an inward and mental assent but with its outward and visible signs."[4] In any given case, in order to determine the existence of an agreement, it has long been usual for common law courts to employ the language of offer and acceptance.[5] That is, it is said that a contract comes into being when one party makes an offer and the other accepts it. Under this approach, however, it is only logical to suggest that the party accepting (i.e., the offeree) must have had full knowledge of the offer at the time of acceptance, and the party making the offer (i.e., the offeror) must have had full knowledge of the acceptance–for it cannot be said that in the absence of such knowledge there is any 'agreement' between the contracting parties, particularly in the context of bilateral contracts.[6]

2.1 Postal Rule–Adams v Lindsell

The advent of new forms and methods of communication have challenged the traditional process by which the existence of an agreement is determined using the criterion of offer and acceptance. Postal communications aptly illustrate this point. Thus, in *Adams v Lindsell*,[7] the English Court of King's Bench had to determine as to what constituted the *external* manifestation of the acceptance, when an acceptance is sent by post–i.e., (1) when the letter of acceptance is put into the postbox, (2) when the letter of acceptance is delivered to the offeror's address, or (3) when the letter of acceptance is actually read by the offeror. The Court was inclined to favour the first of the three possibilities, and now it is settled law that acceptance takes place upon the act of posting,[8] even where the letter of acceptance does not reach the offeror because it is lost in post.[9] Strangely, however, the law dispensed with the strict requirement that acceptances must actually be communicated before contracts are formed in respect of postal contracts–a requirement that has more significance to contracts made by post *inter absentes*.[10]

Of course, whether the postal rule was devised for the right reasons, or is even applicable to the modern context, is questionable. In *Adams v Lindsell*, the Court's reasoning

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[3] *Anon* (1477) YB 17 Edw 4, Pasch. fo. 1, pl. 2 (Brian CJ).

[4] *Smith v Hughes* (1871) LR 6 QB 597 (Blackburn J) –"If, whatever a man's real intention may be, he so conducts himself that a reasonable man would believe that he was assenting to the terms proposed by the other party, and that other party upon that belief enters into a contract with him, the many thus conducting himself would be equally bound as if he had intended to agree to the other party's terms." See also, M Furmston, *Cheshire, Fifoot & Furmston's Law of Contract* (16th edn, Oxford University Press 2012) 42.

[5] Ibid.

[6] In the case of a unilateral contract, where acceptance is by performance, the offeror implicitly waives the requirement of communication of acceptance.

[7] *Adams v Lindsell* [1818] 1 B & Ald 681.

[8] *Household Fire and Carriage Accident Insurance Co v Grant* (1879) 4 Ex D 216, which followed *Adams v Lindsell*.

[9] *Byrne v Van Tienhoven* (1880) 5 CPD 344, 348.

[10] M Furmston (n 4) 70.

for rejecting the view that no contract will be formed until the letter of acceptance is received by the offeror was that:

> "[If] that were so, no contract could ever be completed by the post. For if the defendants were not bound by their offer when accepted by the plaintiffs till the answer was received, then the plaintiffs ought not to be bound till after they had received the notification that the defendants had received their answer and assented to it. And so it might go on *ad infinitum*."[11]

But if the point of the offer and acceptance analysis is to provide guidance in respect of whether parties had assented to certain terms, then the analysis must stop once the offeree's conduct manifests an acceptance. For at that point, there is an agreement or *consensus ad idem* on the terms proposed by the offeror. Unlike what the Court in *Adams v Lindsell* seems to have suggested, there is no further need for the offeror to notify the offeree that the former assents to the latter's acceptance–that would be a redundant exercise for the purpose of establishing an agreement. In *inter praesentes* situations, ie where parties are in the physical presence of one another, or use a mode of communication that has that effect (e.g. online chat applications where both parties remain online), it is reasonable to treat the communication of the acceptance to the offeror as the external manifestation required to determine assent. This is because, when parties are in one another's presence or are able to immediately perceive the other's reaction to an offer, it is only logical to suggest that unless the acceptance is perceived by the offeror, there would have really been no assent in the first place. The act of assent and the communication of the assent to the offeror take place together. Yet, in *inter absentes* situations, such as when post or any other form of non-instantaneous communication is used, this is not possible. It is impossible to know the reaction of the offeree upon receiving an offer. Hence, the external manifestation of acceptance in such situations could take many other forms, although communication of the acceptance to the offeror is one possible, and perhaps the best, manifestation of assent. Thus, the conduct of the offeree in posting the acceptance letter, being a possible external manifestation of assent, is sufficient to constitute a contract as there is *consensus ad idem* at that point. For that reason, the outcome in *Adams v Lindsell*, in treating the act of posting as completing acceptance and forming a contract, is right, but not for the reason set out in the judgement itself. There is really no need for communication of the acceptance, if the basis for a contract is assent or agreement, and it could manifest in other ways.[12]

Of course, this is not to say that there is no utility in a rule that requires an acceptance to be communicated to the offeror before the acceptance has *binding* effect. This is more so in *inter absentes* situations. But that is not because there is no 'agreement' without communication of the acceptance. Rather, it is for practical reasons–"[t]he main reason for the rule is that it could cause hardship to the offeror to be bound without knowing that the offer had been accepted."[13]

It seems that the Court's concern in *Adams v Lindsell* about the possibility of *ad infinitum* communications between parties having no legal effect was misconceived, and this is more so in today's context where letters can be tracked and an offeree could ascertain with certainty if and when the letter of acceptance reaches the offeror. Moreover, and according to

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[11] *Adams v Lindsell*, 683 (Law J) (emphasis added).

[12] For example, in the case of unilateral contracts, the offeree's conduct supplies the external manifestation of the acceptance: see *Carlill v Carbolic Smoke Ball Co* [1893] 1 QB 256. Acceptance could manifest in the form of the offeree's conduct even in the case of bilateral contracts: see *Brogden v Metropolitan Railway Co* (1877) 2 App Cas 666 (HL).

[13] Joseph Chitty and H Beale (eds), *Chitty on Contracts: Vol. 1–General Principles* (32nd edn, Sweet & Maxwell 2015), para 2-045.

Michael Furmston, it appears that *Adams v Lindsell* was decided at a time when the rules regarding communication of acceptance (or the receipt rule) had not even been developed by the common law courts–thus the postal rule somewhat being anterior to the general rule on communication of acceptance.[14] In fact, David Pugsley, having made a comparison between the application of the postal and receipt rules to varying contexts and circumstances, reaches the following conclusion:

> "We should therefore recommend that as a general rule, in accordance with the reasonable expectations of the man on the Clapham omnibus and the fundamental principles of the modern law of contract, a letter of acceptance should take effect, and the contract should therefore be complete when the letter is received by the offeror."[15]

Regardless of the merits of the postal rule, and assuming that the rule still retains a place in the modern context, its application is clearly limited to non-instantaneous forms of communications, which take place *inter absentes.* Whereas, when parties are *inter praesentes*, and even when they are separated physically but make use of instantaneous forms of communications, there is no room for the postal rule of acceptance. In other words, whether the postal rule applies depends on the nature of the communication made use of by the parties.

III ACCEPTANCE BY EMAIL

It is necessary to consider how email communications are to be treated, in light of the principles discussed above. After all, this is what needs to be addressed in responding to the question posed in the hypothetical scenario set out in the introduction. The postal rule devised in *Adams v Lindsell* applies to contracts that are made *inter absentes*–ie where parties are separated by both time and space. As such, at first blush, there might be an inclination to resolve that the postal rule applies to email communications. Yet, despite the similarities between post and email (in how they function), email communications have evolved to become near instantaneous, if not instant. As such, there should be no difficulty in applying the receipt rule to email.[16]

The question as to the applicability of the postal rule to email communications has been considered by courts, but only on a few occasions. In *Chwee Kin Keong v Digilandmall*[17] the Singapore High Court considered the formation of contracts by email *albeit* the Court did not form a definitive conclusion about the applicability of the postal rule. According to Rajah JC:

> "An e-mail, while bearing some similarity to a postal communication, is in some aspects fundamentally different. Furthermore, unlike a fax or a telephone call, it is not instantaneous. E-mails are processed through servers, routers and Internet service providers. Different protocols may result in messages arriving in an incomprehensible form. Arrival can also be immaterial unless a recipient accesses the e-mail, but in this

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[14] M Furmston (n 4) 70.

[15] D Pugsley, 'Postal Contracts' (1976) 11 Irish Jurist 3, 6. Pugsley makes a strong case against the postal rule. He argues (at p10) that if the offeree "chooses to rely on a contract before the earliest moment at which it could have come to the notice of the offeror, it is not unreasonable that he should do so at his own risk" and "[i]n any case the time of posting plays no part in the plans of a layman making a contract." According to Pugsley, just as much as an offeree should be permitted to revoke his postal acceptance by a more expeditious form of communication, the offeror should have the same opportunity to revoke his offer before the acceptance reaches him. Pugsley claims (at p10) that "[t]he law should be the same for both parties. The contract should come into existence and produce its full legal consequences only when the acceptance is received by the offeror."

[16] SWB Hill, 'Email contracts–When is the contract formed?' (2001) 12 Journal of Law and Information Science 46, 51.

[17] *Chwee Kin Keong and Others v Digilandmall.com Pte Ltd* [2004] SGHC 71 (*Chwee Kin Keong v Digilandmall*).

respect e-mail does not really differ from mail that has to be opened. Certain Internet service providers provide the technology to inform a sender that a message has not been properly routed. Others do not.

Notwithstanding some real differences with posting, it could be argued cogently that the postal rule should apply to e-mail acceptances. […] There are, however, other sound reasons to argue against such a rule in favour of the recipient rule. It should be noted that while the common law jurisdictions continue to wrestle over this vexed issue, most civil law jurisdictions lean towards the recipient rule. In support of the latter it might be argued that unlike a posting, e-mail communication takes place in a relatively short time frame. The recipient rule is therefore more convenient and relevant in the context of both instantaneous or near instantaneous communications. Notwithstanding occasional failure, most e-mails arrive sooner rather than later."[18]

Although Rajah JC's observations concerning email were made *obiter*[19] it may be posited that the judge's language suggests that he favoured the receipt rule for email communications.[20] Before his elevation to the judiciary, Andrew Phan, in the course of a lucid evaluation of Rajah JC's approach in *Chwee Kin Keong v Digilandmall* has suggested that "*general (or recipient) rule* ought to govern e-mail transactions"[21] and even went on to suggest that the possible abolition of the postal rule must be seriously considered.[22] This view has been shared by courts in other jurisdictions forming part of both the civil law and common law legal traditions. For instance, in *Jafta v Wildlife*, the Labour Court of South Africa in Durban held that "[t]he assumption that postal contracts are concluded when a letter or telegram of acceptance is handed at the post office cannot apply to acceptance by email or SMS because the forms of communication differ substantially."[23] Similarly, the English High Court has held that:

"The general rule is that the acceptance of an offer is not effective until communicated to the offeror. The "postal rule" is an anomalous exception to the general rule, which is limited to its particular circumstances. *It does not apply to acceptances made by some "instantaneous" mode of communication. […] the same principle applies to communication by email*…"[24]

From the case law discussed above, it is undeniably clear that the postal rule has no application to acceptances communicated by email.[25] Whereas, the external manifestation of

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[18] *Chwee Kin Keong v Digilandmall*, [97]-[98] (Rajah JC).

[19] The case ultimately was decided on the basis of mistake, and not on whether a contract was formed.

[20] A Phang, 'Contract formation and mistake in cyberspace–the Singaporean experience' (2005) 17 Singapore Academy of Law Journal 361, 377.

[21] Ibid 379.

[22] Ibid.

[23] *SB Jafta v Ezemvelo Kzn Wildlife* Case No D204/07 (Labor Court of South Africa, Durban) (1 Jul 2008) (*Jafta v Wildlife*), [79] (Pillay J) (citation omitted).

[24] *Thomas & another v BPE Solicitors* [2010] EWHC 306 (Ch) (*Thomas v BPE Solicitors*), [86] (Blair J) (emphasis added).

[25] Eliza Mik is not in agreement with this view, and instead argues that a case-by-case analysis should be preferred in determining whether the postal rule should be applied to an email acceptance. She argues that "[i]n principle, email does not provide a communication process resembling face-to-face dealings. An acceptance sent via email should not be effective on receipt but on dispatch. At the same time, it is difficult to equate email with the post–at least in terms of reliability. One is therefore left with the necessity to examine each communication scenario involving an emailed acceptance on a case-by-case basis. In the event, however, an acceptance is communicated by means of instant messengers or web-based interactions it can be stated with confidence that there is no other option but effectiveness on receipt": see E Mik, 'The Effectiveness of Acceptances Communicated by Electronic Means, Or–Does the Postal Acceptance Rule Apply to Email' (2009) 26 Journal of Contract Law 68, 96. However,

'assent' in the context of an email acceptance is when the email is communicated to, or received by, the offeror–as email is regarded as near instantaneous. Hence, in determining whether a contract is formed in the hypothetical scenario set out in the introduction it is necessary to respond to the following question: is A's email acceptance *received* by O?

IV ACCEPTANCE IN CASES OF INSTANTANEOUS COMMUNICATIONS

In *Entores v Miles Far East Corp*[26] the question of communication of an acceptance arose in the context of telex, an instantaneous form of communication. The English Court of Appeal held that a contract made using an instantaneous mode of communication is only complete when the acceptance is *received* by the offeror.[27] Although the postal rule was well established by the time *Entores v Miles Far East Corp* had to be decided, the rule in respect of instantaneous communications had not been developed. Thus, Denning LJ's observations in *Entores v Miles Far East Corp* were important because they provided important guidance in relation to instantaneous communications. These observations are reproduced below:

> "Now take a case where two people make a contract by telephone. Suppose, for instance, that I make an offer to a man by telephone and, in the middle of his reply, the line goes "dead" so that I do not hear his words of acceptance. There is no contract at that moment. The other man may not know the precise moment when the line failed. But he will know that the telephone conversation was abruptly broken off: because people usually say something to signify the end of the conversation. If he wishes to make a contract, he must therefore get through again so as to make sure that I heard. Suppose next, that the line does not go dead, but it is nevertheless so indistinct that I do not catch what he says and I ask him to repeat it. He then repeats it and I hear his acceptance. The contract is made, not on the first time when I do not hear, but only the second time when I do hear. If he does not repeat it, there is no contract. The contract is only complete when I have his answer accepting the offer.
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> Lastly, take the Telex. Suppose a clerk in a London office taps out on the teleprinter an offer which is immediately recorded on a teleprinter in a Manchester office, and a clerk at that end taps out an acceptance. If the line goes dead in the middle of the sentence of acceptance, the teleprinter motor will stop. There is then obviously no contract. The clerk at Manchester must get through again and send his complete sentence. But it may happen that the line does not go dead, yet the message does not get through to London. Thus the clerk at Manchester may tap out his message of acceptance and it will not be recorded in London because the ink at the London end fails, or something of that kind. In that case, the Manchester clerk will not know of the failure but the London clerk will know of it and will immediately send back a message "not receiving." Then, when the fault is rectified, the Manchester clerk will repeat his message. Only then is there a contract. If he does not repeat it, there is no contract. It is not until his message is received that the contract is complete."[28]

The above extract from Denning LJ's judgement in *Entores v Miles Far East Corp* clearly sets out the general rule about acceptance.[29] When an instantaneous mode of

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it must be noted that *Thomas v BPE Solicitors*, decided a year after Mik's publication, somewhat dilutes the strength of her view, at least insofar as to the common law understanding of email acceptances is concerned.

[26] *Entores Ltd v Miles Far East Corporation* [1955] 2 QB 327 (*Entores v Miles Far East Corp*).

[27] Ibid 333-34.

[28] Ibid 332-33 (Denning LJ).

[29] *Entores v Miles Far East Corp* has been followed in a number of cases including *Brinkibon Ltd v Stahag Stahl und Stahlwarenhandelsgesellschaft mbH* [1983] 2 AC 34 (*Brinkibon v Stahag Stahl*) (as regards telexes) and

communication is used, a contract will be formed only when the acceptance is *received* by the offeror. Hence, for all purposes, the external manifestation of assent in the case of instantaneous communications is when the acceptance message reaches the offeror. Yet, there is still a further issue to be resolved. When does an acceptance really 'reach' the offeror? Lord Justice Denning's observations suggest that in the case of 'true' *inter praesentes* situations the matter of communication is a non-issue, as the parties are in one another's presence (either physically or virtually) and there will be no contract until the acceptance is *perceived* by the offeror through one or more of his senses. Here, the receipt of the acceptance at the offeror's end is also capable of imputing actual knowledge of the acceptance on the part of the offeror. Telephone (referred to by Denning LJ) or instant chat used in today's context (eg Facebook's messenger app) provide examples of technology that could offer 'real-time' communications.

V EMAIL COMMUNICATIONS ARE ASYNCHRONOUS, NOT SYNCHRONOUS

The problem with email is that although it is more expeditious than post, it is not truly 'real-time'.[30] That is, although an email does get transmitted *virtually* instantly from the sender's server to that of the addressee,[31] receipt at the addressee's end does not necessarily mean that the addressee is made aware of the email's arrival. Thus, if an acceptance was emailed, there is still a gap in time between the receipt of the email acceptance at the offeror's email server and when the offeror becomes actually aware of the acceptance–eg through a push notification between the server and the email client or application[32]–although even this delay is negligible today. For this reason, email communications are not truly an *inter praesentes* form of communication; nor are they truly *inter absentes* communications.[33] This is precisely why determining when an email acceptance is communicated to, or received by, the offeror is a complex exercise. Is it when the acceptance email reaches the offeror's email server (constructive knowledge)? Or is it when the offeror actually is notified of the email and reads it (actual knowledge)? The answer to this question does not seem to have been settled in the common law world.[34] Lord Wilberforce in *Brinkibon v Stahag Stahl* was of the view that "[n]o universal rule can cover all such cases: they must be resolved by reference to the intentions of the parties, by sound business practice and in some cases by a judgement where the risks should lie."[35] It appears, however, that when the offeror has constructive knowledge of the acceptance, it is normally sufficient for the acceptance to take effect. Thus, for instance, where an

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Eastern Power Ltd v Azienda Communale Energia and Ambiente [1999] O.J. 3275 (Court of Appeal, Ontario) (as regards faxes).

[30] Chitty (n 13) para 2-080.

[31] A distinction needs to be drawn between email communications sent between networks that are directly linked to one another and internet based email communications, which use the public network for transmission. There could be more delays in respect of the latter. However, Kathryn O'Shea and Kylie Skeahan have suggested that "despite the possibility that a delay may occur between the sending and receipt of an e-mail message, given the decisions of the courts in relation to telexes and facsimiles it is most likely that the courts will conclude that e-mail is a "virtually instantaneous" method of communication": see K O'Shea and K Skeahan, 'Acceptance of Offers by E-Mail–How Far Should the Postal Acceptance Rule Extend?' (1997) 13 Queensland University of Technology Law Review 247, 259.

[32] This is assuming that an email client (eg an app like Outlook) is used on the receiver's PC or device, to which email messages received at the server are sent (or pushed) on a periodical basis, without the receiver having to himself access the server to check for new email.

[33] K O'Shea and K Skeahan (n 31).

[34] *Thomas v BPE Solicitors*, [90] (Blair J)–"Once one sets aside the "postal rule" as inapplicable to email communications, the question whether an email acceptance is effective when it arrives, or at the time when the offeror could reasonably be expected to have read it, is not a straightforward one, and does not appear to be settled by authority."

[35] *Brinkibon v Stahag Stahl*, 42 (Lord Wilberforce).

acceptance email (or any other form of instantaneous communication) is sent 'within working hours' that is sufficient to impute constructive knowledge of the acceptance on the offeree.[36]

Yet, in the hypothetical scenario set out at the outset, the offeror (O) has neither actual, nor constructive, knowledge of the acceptance, as the email acceptance is deleted permanently upon reaching O's email address. As such, A's acceptance is not 'received' by, or 'communicated' to, O. Yet, despite the lack of communication of the acceptance to the offeror, it appears that O could still be bound to the contract. This is in view of Denning LJ's fault-based analysis in *Entores v Miles Far East Corp*. Thus, building on the discussion on acceptances communicated face-to-face or by use of telephone or telex, Denning LJ made the following qualification:

> "In all the instances I have taken so far, the man who sends the message of acceptance knows that it has not been received or he has reason to know it. So he must repeat it. But, suppose that he does not know that his message did not get home. He thinks it has. This may happen if the listener on the telephone does not catch the words of acceptance, but nevertheless does not trouble to ask for them to be repeated: or the ink on the teleprinter fails at the receiving end, but the clerk does not ask for the message to be repeated: so that the man who sends an acceptance reasonably believes that his message has been received. *The offeror in such circumstances is clearly bound, because he will be estopped from saying that he did not receive the message of acceptance. It is his own fault that he did not get it. But if there should be a case where the offeror without any fault on his part does not receive the message of acceptance—yet the sender of it reasonably believes it has got home when it has not—then I think there is no contract*."[37]

In the examples cited in the above extract, the acceptance message is never 'communicated' to, or 'received' by, the offeror–i.e., the offeror has no knowledge of the acceptance, constructive or actual. Yet, a contract is said to have come into existence, because the acceptance was not communicated owing to the fault of the offeror, and the offeree has no reason to believe that his acceptance was not received–because in the hypothetical scenario, A does in fact receive a notification that the acceptance email was delivered to O's email server. In such circumstances, the doctrine of estoppel operates disentitling the offeror from denying that he did not *receive* the acceptance *when* the offeror's own action or inaction was the cause for the failure in the acceptance being communicated. In effect, Denning LJ introduced an exception to the general rule that an acceptance must *in fact* be received by, or communicated to, the offeror to constitute the external manifestation of assent in cases of instantaneous communications. Whereas, when there is no fault on the part of the offeror, there will be no contract. Thus, the receipt rule would generally apply to instantaneous communications, and arguably to email as well, except that when an acceptance is not communicated to the offeror owing to his own fault, there will nevertheless be a contract, in cases where the offeree had no reason to believe that his acceptance was not communicated. This approach is in no way inconsistent with the rule that 'assent' is the key requirement for the formation of contracts. It has been pointed out that:

> "Despite many statements to the effect that a contract is complete 'only' when acceptance is 'received', as it is only then that it can be said that there is a meeting of

[36] (n 34). See also, (n 13) para 2-047–"If an acceptance is sent and duly received during business hours by telex or fax but is simply not read anyone in the offeror's office when it is there transcribed or printed out on his machine, it is probably taken to have been communicated at that time; if such a message is received out of business hours, it probably takes effect at the beginning of the next business day. *Similar rules probably apply (mutantis mutandis) to determine when an acceptance sent by email is duly received, but not read by the offeror or anyone in his office, is, or taken to be, communicated to the offeror*." (citations omitted) (emphasis added).

[37] (n 26) 333 (Denning LJ) (emphasis added).

minds, as noted earlier, the objective theory of contract does not dictate that communication must occur. *The key to an enforceable contract lies in there being evidence of assent rather than there being a meeting of minds."*[38]

Arguably, in the hypothetical scenario, O's act of setting up an email filter that was more stringent in comparison to the usual industry standard (the usual practice being the transfer of a spam email to a designated spam or trash folder and not its permanent deletion) and failure to deactivate the filter, it being reasonably foreseeable that a prospective acceptance could contain the word 'offer' in the subject line, together implicates fault on O's part. Accordingly, the answer to the question posed at the outset of this discourse is that a contract *does* come into existence between A and O under the common law, even though the acceptance email is *not* in fact brought to the notice of the offeror–O being estopped from denying receipt of the acceptance email in view of his own fault.[39]

VI DISPATCH AND RECEIPT OF ELECTRONIC COMMUNICATIONS UNDER THE MODEL LAW AND THE CONVENTION

The Model Law, and later the Convention, are UNCITRAL's attempts to bring about greater uniformity in relation to commercial transactions that take place in the online space. Although neither the Model Law nor the Convention seeks to set out substantive rules regarding contract formation, they do provide guidance on when an electronic communication is dispatched and received. These rules regarding the dispatch and receipt of electronic communications could inform and supplement the substantive common law rules regarding contract formation.

6.1 The Model Law

The Model Law provides that "[u]nless otherwise agreed between the originator and the addressee, the dispatch of a data message occurs when it enters an information system outside the control of the originator..."[40] Assuming that the postal rule of acceptance has a place in the modern context, the rule regarding dispatch of a data message could provide guidance as to when an electronic acceptance takes effect in the context of non-instantaenous electronic communications. Importantly, according to the Model Law, the time of receipt of a data message has to be determined based on whether the addressee had designated an information system for the purpose of receiving the messages.[41] Thus, unless the parties to a communication had agreed otherwise, where the addressee has designated an information system for the purpose of retrieving data messages, receipt occurs at the time when the data message enters that designated information system.[42] In such circumstances, if the message is sent to an information system not designated by the addressee, then receipt occurs only when it is retrieved by the addressee.[43] In the case where no information system has been designated by the addressee, then receipt of a data message occurs when it enters an information system of the addressee.[44]

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[38] M Furmston and GL Tolhurst, *Contract Formation: Law and Practice* (Oxford University Press, 2010), para 4.93 (citations omitted).
[39] J Cartwright, *Formation and Variation of Contracts* (Sweet & Maxwell, 2014), 101.
[40] UNCITRAL Model Law, Art 15(1).
[41] Ibid Art 15(2)(a) and (b).
[42] Ibid Art 15(2)(a)(i).
[43] Ibid Art 15(2)(a)(ii).
[44] Ibid Art 15(2)(b).

For the purposes of the hypothetical scenario set out in the introduction, we have assumed that the offeror had designated an email address for receiving the acceptance,[45] and in terms of the Model Law receipt occurs the moment A's email acceptance *enters* O's information system. The guidance provided by UNCITRAL to the Model Law suggests that a data message is deemed to have entered an information system when it is *capable of being processed* by that information system.[46] Notably, the Model Law premises receipt not on whether a data message *was* processed, but rather on the notion of its *capabliliy* of being processed. This is of significance to the hypothetical scenario upon which this discourse is based, as arguably the acceptance email sent out by A was capable of being processed, although it may not really have been processed in view of its immediate deletion upon reaching O's email address. In effect, in terms of the Model Law, it would appear that A's email acceptance was in fact received by O, which seems to be consistent with the outcome under the common law on the formation of a contract between A and O.

6.2 The Convention

In assessing the hypothetical scenario under the rules set out by UNCITRAL, it is also necessary to consider the 2005 UN Convention that supplements the Model Law. Art 10(2) of the Convention provides that:

> "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*. 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*. *An electronic communication is presumed to be capable of being retrieved by the addressee when it reaches the addressee's electronic address*."

When Art 10(2) of the Convention is applied to the hypothetical scenario, whether A's acceptance email was received would depend on its capability of being retrieved by O at O's electronic address. UNCITRAL's explanatory note on the Convention suggests that 'capable of being retrieved' takes the same meaning as 'available for processing', which was used to determine receipt under the Model Law:

> "In fact "entry" in an information system is understood under Article 15 of the Model Law as the time when an electronic communication "becomes available for processing within that information system", which is arguably also the time when the communication becomes "capable of being retrieved" by the addressee."[47]

Yet, Art 10(2) of the Convention contains a notable variation to the Model Law's corresponding provision–i.e., the Convention introduces a *presumption* as to receipt.[48]

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[45] UNCITRAL, Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce (1996) (Guide to Model Law), para 102–"By "designated information system", the Model Law is intended to cover a system that has been specifically designated by a party, for instance in the case where an offer expressly specifies the address to which acceptance should be sent. The mere indication of an electronic mail or telecopy address on a letterhead or other document should not be regarded as express designation of one or more information systems."

[46] "A data message enters an information system at the time when it becomes available for processing within that information system.", ibid.

[47] UNICTRAL, Explanatory note by the UNCITRAL secretariat on the United Nations Convention on the Use of Electronic Communications in International Contracts (Explanatory Note on Convention), para 183 (citation omitted).

[48] Ibid Art 10(2) (third sentence) of the Convention provides that–"An electronic communication is presumed to be capable of being retrieved by the addressee when it reaches the addressee's electronic address."

Accordingly, an electronic communication is presumed to be capable of being retrieved by the addressee the moment it *reaches* the addressee's 'electronic address'. In this regard, another change in the language between the Model Law and the Convention must be noted–i.e., the reference to 'electronic address' as opposed to 'information system'. Information system seems broader than electronic address, and if this were the case, for an electronic communication to be received by the addressee, it is not sufficient that it simply was capable of being retrieved (or available for processing) after crossing into the addressee's 'information system' but must have been capable of being retrieved at the relevant electronic address. In other words, adoption of specific language seemingly favours the sender, as the presumption will not come into operation until the electronic communication reaches the addressee's electronic address. However, the Convention's explanatory notes suggest that the new terminology "should not lead to any substantive difference"[49]–although Art 10(1) of the Convention seems to suggest otherwise.[50] In any case, what matters insofar as the hypothetical scenario is whether A's email acceptance was capable of being retrieved at O's electronic address. Arguably, since the acceptance email is deleted by a filter that was set up by O, the email would have been *capable* of being retrieved even momentarily at O's electronic address. Hence, it would appear that A's email acceptance is *presumed* to have been received by O.

6.3 Rebutting the presumption of receipt

Presumptions are rebuttable. The Explanatory Note on the Convention suggests that although by default, under Art 10(2), receipt of an electronic communication occurs when it is capable of being retrieved at the addressee's electronic address, the said provision recognises that "concerns over security of information and communications in the business world have led to the increased use of security measures such as filters or firewalls which might prevent electronic communications from reaching their addressees."[51] UNCITRAL's Working Group on Electronic Commerce, which considered the provisions of the UN Convention on Electronic Commerce in its drafting stage, made the following comment regarding the presumption about receipt:

> "It was noted that the presumption established in the third sentence of the proposed new text of draft paragraph 2 could be rebutted in cases when security or other devices would prevent the communication from being retrieved. It was further argued that the operation of the presumption would allow greater flexibility in the assessment of facts, should there be arguments as to whether a communication had been received or not".[52]

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[49] Ibid para 185.

[50] Ibid Art 10(1) of the Convention reads as follows–"*The time of dispatch of an electronic communication* is the time when it leaves an information system under the control of the originator or of the party who sent it on behalf of the originator or, *if the electronic communication has not left an information system under the control of the originator or of the party who sent it on behalf of the originator, the time when the electronic communication is received*." This provision suggests that an electronic communication is regarded to have been dispatched at the time it leaves the 'information system' under the sender's control, whereas when a communication is sent within a single information system, the time of dispatch of a communication is the same as the time it was received by the addressee. Of course, since receipt of a message is determined under Art 10(2) of the Convention, it must mean that a communication is dispatched within a single 'information system' at the time it reaches the addressee's *electronic address*. This means that an electronic address is something which resides within an information system, suggesting that the latter subsumes the former.

[51] Ibid para 180.

[52] UNCITRAL, Report of the Working Group on Electronic Commerce on the work of its forty-fourth session (A/CN.9/571) (Report of the Working Group on Electronic Commerce), para 160.

Essentially, what this means is that the use of a filter (such as a spam filter), as in the hypothetical scenario, *could* (although not always)[53] rebut the presumption that an electronic communication becomes capable of being retrieved when it reaches the addressee's electronic address, leading to the outcome of the communication being treated as *not* received by the addressee. Thus, even though a contract is formed between A and O under common law principles, this is in circumstances where the electronic communication containing the acceptance is technically not received by O (the offeror) in terms of the provisions dealing with dispatch and receipt under the UNCITRAL Model Law and the UN Convention. Such a conclusion is problematic, creates uncertainty and does not stand to reason.

VII CONCLUSION–HARMONISING THE CONFLICT

Although UNCITRAL's Model Law and the Convention do not aim to determine the formation of contracts under substantive law, we posit that there must be consistency between the outcome of applying the common law principles and UNCITRAL's rules in relation to electronic communications pursuant to which contracts are formed. We propose that a simple amendment to the rules pertaining to 'receipt' of electronic communications can bring about the needed consistency. The amendment, of course, concerns the presumption that applies in determining whether an electronic communication is capable of being retrieved at the addressee's end.

Currently, an electronic communication that is successfully dispatched (i.e., leaves the originator's information system), is received by the addressee when the communication becomes capable of being retrieved–it being presumed that a communication becomes capable of being retrieved when it 'reaches' the electronic address of the addressee. Interestingly, the UNCITRAL Working Group on Electronic Commerce in its 44th session (which took place during the drafting stage of the 2005 UN Convention) considered the following provision to be immediately inserted *after* the provision introducing the presumption, although it was not ultimately adopted:

> "This paragraph does not apply to an electronic communication whose capability of being retrieved or whose arrival at the electronic address is prevented [or significantly delayed] by the operation of *reasonable technological measures* implemented to preserve the integrity, security or usability of the addressee electronic communication system."[54]

Had the above draft provision been approved, it would appear that the presumption will not apply, or if applied will be rebutted, in relation to an electronic communication that became incapable of being retrieved owing to operation of a *reasonable* technological measure. In other words, where an electronic communication becomes incapable of being retrieved as a result of an *unreasonably active spam filter* (which we argue is an *unreasonable* technological measure), the presumption as to receipt would continue to apply and will not be rebutted.

This approach can be reconciled with Denning LJ's fault-based approach in *Entores v Miles Far East Corp*. Thus, it would appear that the use of a filter to automatically and

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[53] In *Bauen Constructions Pty Ltd v Sky General Services Pty Ltd* [2012] NSWSC 1123, the Supreme Court of New South Wales, Australia, held on the facts of that case that an email caught up by the spam filter was capable of being retrieved. The Court held (at [77] (Sackar J))– "They certainly do not require an email to be opened, let alone read. Again, the Oxford dictionary defines "retrieve" in its primary sense as "to get or bring back from somewhere". In its secondary sense it is said to mean "to find or extract (information stored in a computer)". According to the evidence when an email is caught by the Adjudicate Today spam filter, it is nonetheless archived and accessible by Adjudicate Today *via* its external IT consultant." Thus, it seems that an electronic communication will not be capable of being retrieved when it is, for instance, deleted permanently (not merely archived in a spam folder) or becomes corrupted beyond recovery.

[54] (n 52) para 153 (emphasis added).

permanently delete all email communications containing the word 'offer' in the subject line (as was the case in the hypothetical scenario we proposed at the outset) is a technological measure that is not 'reasonable'. In essence, although the email containing A's acceptance is deleted beyond recovery, since the deletion took place only upon the email reaching O's electronic address,[55] the presumption that the email was capable of being retrieved remains intact and unrebutted. The outcome is that the acceptance email is considered as being *received* at O's electronic address. This outcome in turn could be reconciled with the outcome that a contract *does* come into existence between A and O in view of O's fault (of setting up an unreasonably robust filter that was beyond the usual industry practice, and in any case failing to deactivate the filter in anticipation of the acceptance email).

It is, however, important to note that, although the *outcome* of a contract is the end result whichever route we took, differences exist in the *juridical* basis for the conclusion. Lord Justice Denning's fault-based approach is based on estoppel, which prevents the offeror from saying that he did not receive the acceptance, whereas our proposal to amend the 2005 UN Convention presumes irrefutably that he did receive the acceptance.

We also believe that although the failure to use 'reasonable' technological measures is one avenue by which fault may be attributed on the party to whom an electronic communication is addressed (i.e., the offeror (O) in our hypothetical example), there could be many other ways by which fault could be attributed. As such, in order to reconcile the inconsistency between the legal and technical dimensions of electronic contract-making, we propose that the following, more general, fourth sentence be added to Art 10(2) of the 2005 UN Convention:

> "The presumption that applies in determining whether an electronic communication is capable of being retrieved shall not be rebutted in circumstances where the electronic communication is rendered irretrievable owing to the addressee's own fault."

Perhaps the time is ripe for UNCITRAL to provide clearer guidelines on the effect of eletronic communications losing their capability of being retreived owing to a fault on the part of the addressee. In the aftermath of the recent Cambridge Analytica's Facebook data breach, and the natural reaction of internet and email users to protect their confidential information from unlawful or unauthorised access, the use of firewalls and other defensive technological stratagems might throw not only the bath water but the baby as well. Such situations raise difficult and challenging questions concerning contract formation and the need to draw a 'plimsoll line' between fault and caution, particularly when filtering technology and firewalls are used by parties entering into contracts using electronic means.

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[55] JC Bindman, 'The Spam Filter Ate My E-Mail: When Are Electronic Records Received' (2013) 39 William Mitchell Law Review 1295, 1327-28 - "…the recipient does control the location of its spam filters and the intensity of those filters. If an overactive spam filter within the recipient's system incorrectly intercepts a legitimate message […] the message is likely received because it already entered the system. In such a situation, the recipient has the responsibility to check the junk mail folder or be held responsible for receipt of the message" (emphasis added) (citations omitted).