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Comparing Fourth Industrial Revolution innovations for future e-commerce security: A brief comparative study of South Africa and the United Kingdom

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ABSTRACT

E-commerce has witnessed remarkable growth since the COVID-19 pandemic, catalysing newfound interest among global corporations in the South African market. The influx of international companies into the South African landscape foreshadows a wave of technological transformation in the realm of e-commerce. Notably, as these companies predominantly originate from nations at the vanguard of technological innovation, the concomitant changes are anticipated to reverberate globally. However, the impending revolution is poised to usher in a constellation of changes within the sphere of electronic contracting. This article seeks to dissect the regulatory facets of electronic contracts in both South Africa and United Kingdom. Since the United Kingdom is positioned as pace-setter in technological advancement, an exploration of its regulatory dimensions stands to furnish invaluable insight into mitigating the prospective predicaments engendered by the surge in e-commerce activities in South Africa. This article explores the dynamic interplay between global-e commerce trends and regulatory frameworks, shedding light on the importance of a "wet" signature in ensuring the harmonious coexistence of technological advancement and legal safeguards in South Africa's burgeoning landscape of electronic contracting

Keywords: cybersecurity; infrastructure; online contracts; assent; technological integration; e-commerce.

1 INTRODUCTION

Globalisation has led to integration and interaction among companies, countries, and individuals from across the world.[1] In the course of this process, products and technologies have spread worldwide at a faster pace than ever.[2] In South Africa, new developments are transforming the manner in which people live, work, and interact with each other.[3] This is being shaped by disruptive technologies such as artificial intelligence (AI) and robotics. In the 21st century, South Africa is the third largest economy in Africa and, thus, has been affected politically, economically, and socially by global developments. The Fourth Industrial Revolution ("4th IR") represents the latest technological shift in the global industrial sphere, building upon the foundation of its

[1] See Islam R, Fakhrorazi A, Hartini H et al. "Globalisation and its impact on international business" (2019) 7(1) *Humanities & social sciences reviews* 256.

[2] See Tuba M "The technology-neutral approach and electronic money regulation in the EU: Identifying the promises and challenges for future regulation in South Africa" (2014) 47(3) *Comparative and International Law Journal of Southern Africa* 372 at 373.

[3] Schwab K *The Fourth Industrial Revolution* New York: Crown Publishing Group (2017) at 5–6.

predecessors. Where the 3rd Industrial Revolution introduced a digital revolution, the 4th IR takes it further with a fusion of the digital, biological, and physical spheres of life. The 4th IR is shaped fundamentally by the fusion of technologies that blur the lines between the digital, biological, and physical spheres of life. It has changed the way in which people communicate and use data and technology to complete daily tasks and work activities. Thus, technology has created, and continues to create, a new economic landscape, revolutionising the way we live.[4]

The use of digital technology was intensified by the COVID-19 pandemic, during which where there was a need to shift from paper-based to electronic communication.[5] Due to technological progress, parties were able to conduct transactions by electronic means, something which has become the norm as the era of electronic commerce, or e-commerce, has progressed. E-commerce entails the exchange of information, products, and services by utilising electronic networks. This means that parties conclude contracts online and validate such contracts by appending their signatures to them. Consequently, electronic signatures ("e-signatures") were introduced online suppliers, as was the usage of "clickwrap" (discussed below).

For that reason, this article examines what constitutes an electronic signature in e-commerce as well as the issue of whether clicking on an "I agree" or "I accept" button serves as a valid sign of contractual intent and satisfies the legal requirements of a valid and legally binding contract. These concepts are discussed in relation to the introduction of AI contracts, and specifically so in terms of immovable property and assenting to online contracts. In addition, a brief comparative analysis of South Africa and the United Kingdom (UK) is undertaken in order to evaluate the success criterion of utilising AI technology in electronic contracts and for concluding e-commerce contracts.

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4 Philip R & Maynard K "Towards a 4th Industrial Revolution" (2021) 13(3) *Intelligent Buildings International* 159.

5 Pandey N & Pal A "Impact of digital surge during COVID-19 pandemic: A viewpoint on research and practice" (2020) 55 *International Journal of Information Management* 1. See also Van der Merwe DP (ed) *Information and communications technology law* 3ed South Africa: LexisNexis (2021) at Chapter 6.

2 DEFINITION OF CONCEPTS

2.1 E-commerce

The COVID-19 pandemic led to the expanded adoption of digital platforms domestically and internationally.[6] The increase in the utilisation of e-commerce has not faltered; instead it has intensified following the technological breakthroughs seen in 2025.[7] For example, at the time of writing, the establishment of Amazon's local headquarters in South Africa had been announced, a development with the potential to significantly influence electronic contracts due to Amazon's use of AI technology.[8] E-commerce platforms continue to evolve with new technological advancements. AI-driven customisation, mobile shopping, augmented-reality (AR) and virtual-reality (VR) experiences, and voice commerce (which involves using voice assistants, such as Alexa or Siri, for online shopping) have the potential to change the e-commerce market entirely.[9]

While specific developments and future trends in e-commerce cannot be predicted, it is safe to assume that the sector will continue to develop and play a key role in the global economy. Adaptable and innovative businesses will be in a better position to profit from the e-commerce industry's expansion.[10] This expansion has been propelled by the technological shifts that matured since the start of the 4th IR. The advancement of e-commerce warrants attention due to its potential to greatly influence the domain of contract law.

E-commerce, defined as the use of electronic networks for commercial purposes, encompasses the exchange of information, products, and/or services.[11] Essentially, this means that individuals who are extremely unlikely to meet in their lifetimes can enter

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6 Chabata T & Dilotsotlhe N "Mobile retail shopping by millennial consumers in townships: A resistance perspective" (2024) 13(7) *International Journal of Research in Business and Social Science* 1.

7 Writer S "The explosive growth of e-commerce in South Africa" (21 March 2022) *Business Tech* available at https://businesstech.co.za/news/ (accessed 26 September 2022).

8 Illidge M "Amazon hiring people to launch its South African marketplace" (11 August 2022) *Mybroadband* available at https://mybroadband.co.za/news/business/518807-amazon-on-hiring-spree-for-south-african-marketplace.html (accessed 26 September 2022).

9 Rashid H, Te Chan L, Sen SC et al. "Revolution of retail industry: From perspective of Retail 1.0 to 4.0" (2022) 200 *Procedia Computer* 1615.

10 Alcedo J, Cavallo A, Dwyer B et al. "Pandemic's e-commerce surge proves less persistent, more varied" (2022) *IMF* available at https://www.imf.org/ (1 September 2023).

11 Section 1 of the Electronic Communications and Transactions Act 25 of 2002.

into contractual agreements despite their being located in separate geographical locations.[12] As such, e-commerce offers several advantages, such as enhanced business efficiency, a significant decrease in paperwork, and a favourable impact on revenue generation.[13] In spite of these benefits, though, e-commerce gives rise to a variety of challenges.[14] One of these pertains to the verification of communications over electronic networks, chiefly the internet,[15] given that it is crucial to establish the identities of the parties to a contract with certainty.[16]

The Electronic Communications and Transactions Act 25 of 2002 (ECTA) is the principal legislation in South Africa regulating electronic commerce. Its primary objectives include facilitating electronic communication ("e-communication") and transactions in the public interest by promoting legal certainty and confidence in respect of e-communication and transactions whilst recognising the principle of functional equivalence and technology-neutrality.[17] E-communication refers to the transmission of data messages between the computer systems of the parties concerned through electronic means.[18] Coetzee employs the term "electronic data interchange" to denote this particular method.[19] It enables parties to engage in electronic trading and contract formation without the need for physical documentation. To facilitate the execution of the aforementioned contracts by electronic means, it is necessary for the parties involved to employ an e-signature to verify and authenticate their individual identities.[20] The regulation of e-signatures falls

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[12] Adams R, Smart P & Huff S "Shades of grey: Guidelines for working with the grey literature in systematic reviews for management and organizational studies" (2017) 19(4) *International Journal of Management Reviews* 432.

[13] Boccia F "Introduction: The digital economy and fiscal policy in the age of e-commerce" in Boccia F & Leonardi R (eds) *The challenge of the digital economy: Markets, taxation and appropriate economic models* Cham: Palgrave Macmillan (2016) 1.

[14] Meltzer J "Governing digital trade" (2019) 18(S1) *World Trade Review* 23 at 35.

[15] Meltzer (2019) at 35.

[16] Hutchison D & Pretorius C *The law of contract in South Africa* 4ed Cape Town: Oxford University Press (2022) at 6.

[17] Preamble of the ECTA.

[18] Section 1 of the ECTA.

[19] Coetzee J "The Electronic Communications Act 25 of 2002: Facilitating electronic commerce" (2004) 15(3) *Stellenbosch Law Review* at 501.

[20] World Economic Forum "Making deals in cyberspace: What's the problem?" (2017) *World Economic Forum* available at https://www3.weforum.org/docs/WEF_White_Paper_Making_Deals_in_Cyberspace.pdf (accessed 4 September 2023).

under the purview of the ECTA, specifically in accordance with the criteria outlined in section 13.[21] Therefore, the ECTA aims to make it possible for more efficient, enhanced, and expeditious agreements and transactions to take place by means of online contracting.[22]

2.2 Types of electronic signature

The ECTA recognises two types of e-signature: an electronic signature and an advanced electronic signature.[23] Other jurisdictions recognise an extra type – for example, the UK recognises an electronic signature known as the qualifying electronic signature. These three types of e-signatures are discussed below.

2.2.1 Electronic signatures

As with paper documents, electronic documents in the modern age need to be signed; thus, the effect of an e-signature in the online space needs to equate to that of a traditional offline "wet-ink" signature.[24] If an e-signature complies with the requirements and functions of a traditional signature, it should be deemed valid in law.[25] E-signatures are created using a variety of electronic methods, and can be applied to a wide range of documents.[26] The difference between a traditional "wet-ink" signature and an e-signature relates to the act of signing. With a traditional "wet-ink" signature, the signature is applied by the hand of the signatory upon a manuscript, whereas e-signatures are applied using a digital mechanism.[27] The person thus might not be physically present when the signature is appended, so there is a need to ensure that an electronic signature is authorised when it is appended.

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[21] Section 13 of the ECTA.

[22] Preamble of the ECTA.

[23] Section 13 of the ECTA.

[24] Section 13(2) of the ECTA.

[25] Singh C "Signed, sealed and delivered (electronically): Embracing the digital takeover. A brief consideration of electronic signing and delivery in South African law" (2022) 33(4) *Stellenbosch Law Review* at 620.

[26] Mupangavanhu Y "Electronic signatures and non-variation clauses in the modern digital world: The case of South Africa" (2016) 133(4) *South African Law Journal* 853 at 854.

[27] Srivastava A & Koekemoer M "The legal recognition of electronic signatures in South Africa: A critical overview" (2013) 21(3) *African Journal of International and Comparative Law* 427 at 429–430.

Several sections in the ECTA have entrenched the position that an e-signature is the functional equivalent of a traditional "wet-ink" signature. Section 12 recognises data as the functional equivalent of writing, or evidence in writing, by giving data messages the same legal validity as messages written on paper.[28] Section 13 of the ECTA stipulates what constitutes an e-signature.[29] On this basis, an e-signature may be said to be anything in electronic form that can be used to demonstrate that a signing entity intended his or her signature to take legal effect.[30] Some commentators have also referred to an e-signature as "any symbol, mark or method, accomplished by electronic means, executed by a party with the present intent to be bound by a record or to authenticate a record".[31]

In *Spring Forest Trading 599 CC v Wilberry*, the Supreme Court of Appeal demonstrated its approval of e-signatures,[32] holding that a signature affixed to an email constituted a valid electronic signature.[33] The facts of the case concerned the rental agreement of several car-washing mobile dispensing units.[34] The agreement between the parties contained a non-variation clause providing that no variation or consensual cancellation would be effective unless reduced to writing and signed by both parties.[35] The court had to determine whether an exchange of emails between the parties discussing the cancellation amounted to a negotiation or agreement to cancel.[36]

The Supreme Court of Appeal ruled that the ECTA gives legal recognition to transactions concluded by email and noted that the typewritten names at the end of the email correspondence between the parties constituted an electronic signature in terms of section 13(3) of the ECTA.[37] It held that the typewritten names of the parties at the foot of emails, which identify users, are sufficient to meet the signature requirement in terms

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[28] Section 12 of the ECTA.

[29] Section 13(1) of the ECTA.

[30] Section 13(3) of the ECTA.

[31] Blythe S "Digital signature law of the United Nations, European Union, United Kingdom and United States: Promotion of growth in e-commerce with enhanced security" (2005) 11(2) *Richmond Journal of Law and Technology* 1 at 3.

[32] *Spring Forest Trading 599 CC v Wilberry (Pty) Ltd* 2015 (2) SA 118 (SCA) at para 1.

[33] *Spring Forest Trading* (2015) at para 29.

[34] *Spring Forest Trading* (2015) at paras 4–5.

[35] *Spring Forest Trading* (2015) at paras 9–11.

[36] *Spring Forest Trading* (2015) at para 12.

[37] *Spring Forest Trading* (2015) at paras 24–27.

of the ECTA.[38] As a result, the typewritten names satisfied the requirement of serving as a signature and had the effect of authenticating the information in the email.[39] This case confirmed that affixing one's name to an email footer authenticates that email and that the typed name constitutes a valid e-signature.[40]

In *Global & Local Investments (Pty) Ltd v Fouché*, Fouché had given a written mandate to Global to invest on his behalf.[41] The mandate specified that all instructions had to be given by fax or email with Fouché's signature.[42] Fraudsters hacked Fouché's email address and instructed Global to transfer money to a third party's account.[43] The fraudster's email ended with the words, "Thanks Nick." Fouché claimed that this transfer was without his instruction and contrary to the mandate, as it did not bear his signature either electronically or in manuscript form.[44] The Supreme Court of Appeal held that the instruction was not accompanied by such a signature and that the High Court had held correctly that the funds were transferred without the required signature, meaning that the transaction was conducted without proper authorisation.[45] This was contrary to the mandate given by Fouché and hence the transfer of money was not binding on Fouché.[46] In essence, the court held that the email signature in this instance did not constitute a signature as required by the mandate between the parties.[47] According to this case, it was advised that, to comply with the ECTA's requirements, contracting parties should agree explicitly to the use of e-signatures and agree on the signing method to be used.[48]

Section 1 of the ECTA defines an electronic signature as data attached to, incorporated in, or logically associated with, other data and intended by the user to serve as a signature.[49] The term "data" is defined to mean the electronic representation of information in any

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[38] *Spring Forest Trading* (2015) at para 28.

[39] *Spring Forest Trading* (2015) at para 28.

[40] *Spring Forest Trading* (2015) at paras 28–29.

[41] *Global & Local Investments Advisors (Pty) Ltd v Fouché* 2021 (1) SA 371 (SCA) at para 2.

[42] *Global & Local Investments Advisors* (2021) at para 2.

[43] *Global & Local Investments Advisors* (2021) at para 3.

[44] *Global & Local Investments Advisors* (2021) at para 3.

[45] *Global & Local Investments Advisors* (2021) at para 7.

[46] *Global & Local Investments Advisors* (2021) at para 14.

[47] *Global & Local Investments Advisors* (2021) at para 14.

[48] *Global & Local Investments Advisors* (2021) at para 16.

[49] Section 1 of the ECTA.

form.[50] As Swales notes, an example that meets the definition of an electronic signature is a person inputting his or her name at the conclusion of an email or using software to incorporate an image of his or her signature at the end of a contract.[51]

In *Borcherds and Another v Duxbury and Others*, the purchasers signed the offer of purchase, in pen and ink, and a digital scan of the document was conveyed to the seller, who received it on his mobile device.[52] The seller then utilised the DocuSign application, imported images of his "wet-ink" signature and initials into DocuSign on his phone, and applied these signatures to a digital copy of the contract of sale.[53] The applicants sought to set aside the sale of the immovable property agreement on the grounds, inter alia, that the seller signed the agreement by means of an application used for electronic signatures in documents.[54] The High Court held that it was acceptable for a signatory to use a mobile app to apply his actual signature on the sale of immovable property agreement.[55] It may be noted that this is used for identifying the person giving such a signature.[56] Where it happens that photo-editing software (for example, from Adobe) has been used, the court will look at the intention of the parties to have such a signature be considered an e-signature.[57] It can be seen that for a signature to be recognised as a valid e-signature, the signature must comply with the criteria of "intention" and "relationship" in that there must be a relationship between the document and signature and the person must have intended the latter to be his or her signature.

2.2.2 Advanced electronic signatures

Section 1 of the ECTA defines an advanced electronic signature as an electronic signature that results from a process which has been accredited by the South African Accreditation Authority provided for in section 37 of the ECTA.[58] In other words, it can be considered a safer type of electronic signature since it is supposed to be accredited by the South

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50 Section 1 of the ECTA.

51 Swales L 'Electronic signatures: Where to next?' (2022) 50 *TSAR* 76 at 82.

52 *Borcherds and Another v Duxbury and Others* 2021 (1) SA 410 ECP at paras 25–28.

53 *Borcherds* (2021) at para 24.

54 *Borcherds* (2021) at paras 25–28.

55 *Borcherds* (2021) at paras 25–28.

56 *Jafta v Ezemvelo KZN Wildlife* [2008] JOL 22096 (LC) at para 79.

57 *Borcherds* (2021) at paras 25–28.

58 Section 1 of the ECTA.

African Accreditation Authority. This makes such a signature favourable for high-value transactions. Despite the general use and validity of advanced electronic signatures in contracts, the ECTA excludes them in its schedules. Section 4(3) and schedule 1 of the ECTA expressly exclude certain documents from being signed electronically, for example the sale of alienation of immovable property.[59]

Swales notes that the accreditation of this signature in terms of section 38 of the ECTA follows the approach taken in Europe, where it should be shown that the signature is (i) uniquely linked to the user; (ii) capable of identifying that user; (iii) created using means that can be maintained under the sole control of that user; (iv) linked to the data message to which it relates in such a manner that any subsequent change of the data or data message is detectable; and (v) based on face-to-face identification of the user.[60] It may be noted that obtaining a valid advanced electronic signature can be daunting. This means that the use of a normal electronic signature is generally preferred given that it does not have to be accredited.[61]

According to Snail, section 13 of the ECTA gives legal recognition to e-signatures.[62] It has been suggested, however, that where legislation or a common law rule requires a signature, only an advanced electronic signature should be used.[63] Section 13(2) of the ECTA provides that an e-signature shall not be without legal force merely because it is in electronic form. In addition, it covers ordinary electronic signatures such as a signature in an email footer. While section 13(2) validates electronic signatures, it is subject to section 13(1), which means that if a law requires a signature without specifying the type, an advanced electronic signature must be used.[64] Thus, there are three distinct ways in which e-signatures may be categorised. First, section 13(2) prescribes that any e-signature or distinct electronic mark can be an advanced electronic signature.[65] Secondly,

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[59] Section 4(3) and schedule 1 of the ECTA.

[60] Swales (2022) at 82–83.

[61] Swales (2022) at 83.

[62] Snail S *A comparative review of legislative reform of electronic contract formation in South Africa* (LLM thesis, University of South Africa 2015) at 111.

[63] Eiselen S "E-commerce" in Van der Merwe DP (ed) *Information and communications technology law* South Africa: LexisNexis (2016) at 147.

[64] Section 13(2) of the ECTA.

[65] Section 13(1) of the ECTA.

section 13(1) explicitly states that an e-signature must be an advanced e-signature.[66] Lastly, according to section 13(4), a signature will be regarded an e-signature if it is accredited as such by the South African Department of Communications.

Clearly, this shows that electronic and advanced electronic signatures are catered for under the ECTA. In the UK, a newer form of e-signature, known as a qualifying electronic signature, is also catered for in terms of legislation. This is similar to signatures falling in the realm of section 13(4) of the ECTA. For the purpose of discussing e-signatures, it is useful to consider how such e-signatures are regulated and used in the UK.

2.2.3 Qualifying electronic signatures

As mentioned, qualifying electronic signatures are not recognised by the ECTA. It is imperative, however, to take note of them in regard to the UK framework, which does indeed recognise them. A qualified electronic signature is an advanced electronic signature created by a qualified electronic-signature-creation device and based on a qualified certificate for electronic signatures.[67] In essence, it can be regarded as a more secure form of advanced electronic signature.[68]

This type of signature has the same recognised status as an advanced electronic signature, given that the criteria for its validity are the same as those for an electronic signature. This means that it must be shown that the signature is (i) uniquely linked to the user; (ii) capable of identifying that user; (iii) created using means that can be maintained under the sole control of that user; (iv) linked to the data message to which it relates in such a manner that any subsequent change of the data or data message is detectable; and (v) based on the face-to-face identification of the user.[69] Were this kind of signature to be used in South Africa, it would receive the same recognition as the aforementioned types of electronic signature. Thus, in the UK a qualified electronic

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[66] Section 13(4) of the ECTA.

[67] Article 3 of the Regulation (EU) 910/2014 of the European Parliament and the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC.

[68] Schulman H "What are the typed signatures and are they legal?" (n. d.) *Lightico* available at https://www.lightico.com/ (accessed 10 September 2023).

[69] Article 26 of the Regulation (EU) 910/2014.

signature is legally recognised as a high-security type of advanced electronic signature that meets the strict requirements of a secured electronic signature.[70]

2.3 Clickwrap agreements

Online contracts pose certain challenges when it comes to their formation. Consumers generally have less transactional awareness when contracting online than when concluding an offline transaction.[71] This raises the question of whether clicking on a computer interface – an action for assenting to online contracts – may be construed as a form of acceptance and thus as enforceable.[72] The result is a clickwrap agreement, namely an agreement in which the consumer is required to click "I agree" (or indicate consent to the terms in some related way) before he or she can proceed with the online transaction or gain access to the website.[73]

Electronic contracts could be viewed as versions of contractual terms and could, for example, be found on a supplier's website where it is required that one click a button to confirm acceptance of a term. This is done to be able to identify the user; once the user clicks the button, in certain circumstances it has the same value as an electronic signature.[74] When clickwrap is used, such identification is done by producing an email address. An email address serves as a unique identifier that specifies both the recipient and the location host by virtue of the mailbox and the domain of the email.[75] In other words, sending an email normally facilitates the involuntary disclosure of a user's personal information such as full name, place of work, and professional affiliation. As a result, it is common practice that clickwraps are utilised, as the user is usually directed to a private policy of the service provideror website before proceeding with using the website or conducting a transaction.

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[70] Schulman (n. d.).

[71] Van Deventer S *Regulating the form and substance of online contracts: South African and foreign perspectives* (LLD thesis, University of Stellenbosch 2020) at 15–16.

[72] Van Deventer (2020) at 15–9.

[73] Van Deventer S "Problems relating to the formation of online contracts: A South African perspective" (2021) 138 *South African Law Journal* 219 at 222.

[74] Van Deventer (2021) at 223.

[75] Tschabitscher H "Parts of an email address and the characters you can use in them" (15 November 2021) *Lifewire* available at https://www.lifewire.com/elements-of-email-address-1166413 (accessed 10 September 2023).

3 INTERNATIONAL LEGAL FRAMEWORKS AND AI'S BURGEONING CONTRACTUAL CAPABILITIES

The United Nations Commission on International Trade Law (UNCITRAL) developed the Model Law on Electronic Commerce 1996 and the Model Law on Electronic Signatures 2001.[76] The UNCITRAL model laws have provided guidelines to law-makers globally on how to frame legislation on electronic communication. One of the underlying ideas of the model laws that was adopted by the ECTA was the principle of functional equivalence. This holds that electronic communications should be given similar legal recognition as, and be regarded as functionally equivalent to, paper-based communications.[77]

This principle is promoted by article 5 of the Model Law on Electronic Commerce, which stipulates that information must not denied legal effect on the basis that it takes the form of a data message. Article 7 of the same Model Law provides that where e-signatures meet the criteria of technical reliability, they are to be regarded as functionally equivalent to handwritten signatures. Article 7 focuses on two main functions: identifying the originator of the data message and showing that the author agrees with the content of the data message. The method by which the electronic signature is appended must be reliable and appropriate for the purposes for which the data message is communicated.[78]

The Model Law on Electronic Signatures is based on article 7 of the Model Law on Electronic Commerce. The objective of the Model Law is to encourage the use of e-signatures and promote equal treatment of all documents, whether electronic or paper-based. Article 11 of the Model Law on Electronic Commerce provides for the validity of agreements concluded by electronic means.[79] It states that where a data message is used for the formation of a contract, that specific contract must not be deemed to be invalid solely on the fact that a data message was used to conclude a contract. For example, a data message can be used in an offer and acceptance agreement and is valid once acceptance

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[76] Snail (2015) at 21.

[77] Pistorius T "Contract formation: A comparative study of legislative initiatives on select aspects of electronic commerce" (2002) 35(2) *Comparative and International Law Journal of Southern Africa* 129 at 130.

[78] Blythe S "Digital signature law of the United Nations, European Union, United Kingdom and United States: Promotion of growth in e-commerce with enhanced security" (2005) 11(2) *Richmond Journal of Law and Technology* 1 at 6.

[79] Article 11 of the Model Law on Electronic Commerce.

has entered the information system in the form of a data message.[80] Article 6 in turn provides that an e-signature will be valid if it is reliable and contextually appropriate for the purposes for which it was generated.[81]

The Guide to Enactment to the Model Law on Electronic Signatures provides a set of legal, technical, and commercial factors that should be considered when determining whether an e-signature was used appropriately and is sufficiently reliable.[82] It does not, however, set out the rules and regulations for e-signatures, leaving national laws to determine what liability a party may be subject to in accordance with each jurisdiction.[83]

3.1 The regulation of e-commerce in South Africa

South Africa, through the mandate granted by the Constitution,[84] has adopted the United Nations Model Law on Electronic Commerce and incorporated it as the ECTA. South Africa's legal framework has taken further steps to integrate the Model Law on Electronic Commerce and align itself with rapid technological change. Currently, courts find themselves overloaded with paperwork and still make use of printers.[85] The switch to digital tools and methods has been slow, and despite certain technological upgrades, such devices have not been used effectively.[86] The move to digitisation in signing documents has been a valuable one necessary for concluding agreements. While most advanced electronic signatures are allowed in most contracts, certain agreements exclude e-signatures as a form of signature and still require "wet-ink" signatures.

3.1.1 Immovable property

As mentioned, the ECTA is the primary legislation governing electronic transactions in South Africa.[87] It is important to highlight that it does not relate primarily to transactions

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[80] Article 2(a) defines a "data message" as "information generated, sent, received or stored by electronic, optical or similar means including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy …"

[81] Snail (2015) at 35.

[82] UNCITRAL Model Law on Electronic Commerce with Guide to Enactment, Part I, Resolution 51/162 adopted by 85th General Assembly at a plenary meeting (A/51/628) (December 1996) at para 48.

[83] UNCITRAL Model Law on Electronic Commerce at para 48.

[84] Section 231(4) of the Constitution of the Republic of South Africa.

[85] Snail (2015) at 37.

[86] Snail (2015) at 38.

[87] Preamble of the ECTA.

involving immovable property. This is due to the necessity of adhering to the regulations in the Alienation of Land Act of 1981 (ALA), an Act that specifically governs transactions involving immovable property.[88] The ECTA does not have specific provisions applicable to immovable property as covered by the ALA. So, to ascertain if a transaction involving immovable property may be conducted by electronic means, reference must be made to the ALA.

The ALA mandates a formal written contract with a traditional wet-ink signature for the sale of immovable property.[89] In general, an electronic signature, as recognised by the ECTA, can fulfil this formality, as it has an equivalent standing to a wet-ink signature.[90] However, it is important to note an exception in the case of transactions involving immovable property. An electronic signature does not hold the same legal weight in this context. As mentioned, the ECTA does not extend its application to transactions involving immovable property regulated by the ALA.

This understanding has been affirmed by the courts, such as in the case of *Borcherds and Another v Duxbury and Others*. In this case, the court confirmed that the ECTA does not permit the use of e-signatures in transactions related to immovable property.[91] Nevertheless, a scanned wet signature was deemed valid for an immovable property transaction, underlining that the intent to conduct the transaction electronically is a crucial determinant of contract validity.[92]

3.1.2 Assent for online contracts

The term "assent contracts" denotes the act of agreeing to all the stipulated terms within a contract, thereby essentially signifying consent to the contract.[93] Within the realm of contract law in South Africa, consensus is identified as a fundamental requirement for a

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88 Section 4(3) and schedule 2 of the ECTA. See also *Aarifah Security Services CC v Jakoita Properties (Pty) Ltd and Others* 2020 JOL 48794 (GL) at para 63.

89 Section 2 of the Alienation of Land Act 68 of 1981.

90 Section 13 of the ECTA. See also *Global & Local Investments Advisors (Pty) Ltd* at paras 10–12.

91 *Borcherds* (2021) at paras 25–28.

92 *Borcherds* (2021) at para 28.

93 Woerner J "Mutual assent in contract law" (n. d.) *Study.com* available at https://study.com/ (accessed 20 June 2023).

contract to be considered valid.[94] In essence, if consent is found to be lacking in a contract, the contract would be rendered invalid.

The ECTA seems to be aligned with this approach when it comes to electronic contracts. Electronic contracts, akin to traditional wet-ink contracts,[95] are expected to adhere to the fundamental principles set forth in contract law. To ensure that the requirement of consensus is met between parties involved in a contract, the ECTA has established specific provisions. It imposes an obligation on suppliers to disclose various types of critical information encompassing the terms of the agreement, any applicable guarantees related to the transaction, and details regarding how the contents of the agreement can be accessed.[96] This disclosure empowers consumers to make informed decisions and give informed consent to the terms of the contract. However, the ECTA does not specify the format in which the contract information should be presented to the other party.[97] This can pose a challenge, particularly in cases where clickwraps are utilised.

As mentioned, a clickwrap agreement is an online contract in which the contracting parties indicate their consent by clicking "I agree" before proceeding with the transaction or gaining access to the website. Eiselen has examined clickwrap agreements in terms of their enforceability under South African law.[98] He suggests that clickwrap agreements warrant close scrutiny, as users' true intent needs to be ascertained when they merely click the "I agree" button.[99] In the context of clickwrap agreements, providing consent results in a signature that aligns with the provisions outlined in the ECTA. The court, as seen in the case of *Spring Forest Trading CC v Wilberry (Pty) Ltd t/a Ecowash*, has affirmed that any method employed by parties to signify approval and confirm the identity of the individual will be accepted as a valid signature.[100] Clicking is the most prevalent method

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94 Hutchison & Pretorius (2017) at 6.

95 Van Deventer (2021) at 237.

96 Section 43(k) of the ECTA.

97 Van Deventer (2021) at 237.

98 Eiselen J 'The enforceability of click-wrap agreements in South Africa" (2005) 122(2) *South African Law Review* 312.

99 Eiselen (2006) at 112–13.

100 *Spring Forest Trading* (2015) at para 26.

of giving consent in e-commerce.[101] It is widely recognised as valid, given that willingness to agree is evident and that the person clicking can be clearly identified.

3.1.3 The contractual capacity of AI

The term "electronic person" refers to a robot or AI which has been elevated to the status of a human being.[102] Introduced into European legal discourse in 2016,[103] it covers, among other things, software programs, AI systems, automated decision-making, electronic agents, and AI-based robotics.[104] In regard to the legal personality of these electronic agents, they currently lack legal rights and duties: juristic persons differ from electronic persons.

A juristic person is an artificial or legal person that possesses legal status and a legal personality.[105] Juristic persons are created by artificial means by way of legal instruments such as companies, non-profit organisations and corporations recognised in terms of the Companies Act 71 of 2008 and the Close Corporations Act 69 of 1984.[106] One may be tempted to classify juristic persons and electronic persons under the same banner, but this would be inaccurate. Juristic persons are created by means of a legal fiction and have no will of their own but must act through natural persons.[107] Juristic persons are, therefore, incapable of functioning as human beings. Conversely, sophisticated electronic persons may have human-like attributes, intelligence, and decision-making capabilities.

As regards the contractual capability of electronic persons, the scope of section 20 of the ECTA ensures that contracts generated automatically are as binding as those entered into

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[101] JJrInc. Attorneys "'Click here to accept the terms and conditions'" (17 April 2020) *JJrInc. Attorneys* available at https://jjrinc.co.za/click-here-to-accept-the-terms-and-conditions-online-contract-conclusion/ (accessed 24 June 2023).

[102] European Parliament Resolution of 16 February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL) at para 31(f).

[103] Van Eck M & Agbeko F "Electronic persons in contracts" (2023) 44(4) *Obiter* 808 at 810.

[104] Bilchitz D "Moving beyond arbitrariness: The legal personhood and dignity of non-human animals" (2009) 25(1) *South African Journal on Human Rights* 38 at 38–39.

[105] *Cape Pacific Ltd v Lubner Controlling Investments (Pty) Ltd* 1995 (4) SA 790 (A) at para 803. See also Bilchitz (2009) at 41.

[106] These forms of legal person are artificially designed by a fiction of law and are vested with the capacity and ability to own rights, owe duties, and perform acts through the agency of natural persons.

[107] Andrade F and Neto E "Reflections on civil liability model for artificial intelligence: Perspectives of Brazilian Private Law" (2019) *Editora Fundação Fênix* 1 at 71.

directly by the supplier.[108] When it comes to e-commerce, the question arises as to whom it is that the consumer contracts with and who will be held liable in terms of such contracts. South African contractual liability is based on serious intention; the material terms of the agreement; and the parties must be *ad idem*.[109] Owing to the nature of online contracting, it would be difficult to determine the presence of all these requirements. Consequently, Van Deventer argues that there needs to be more support for objectively determining contractual liability in online contracting. In this instance, similar arguments can be made in terms of electronic persons. However, when it comes to the contractual liability of electronic persons, there is additional risk, for example in regard to who will be held accountable and how contractual liability will be determined.

Thus, South Africa continues to view electronic persons as passive objects in the form of assistive artificial intelligence rather than as self-autonomous artificial intelligence. It may be argued that electronic persons can fulfil specific functions in society and have the potential to acquire human characteristics. In the future, the South African legislative framework should consider recognising the personhood of electronic entities. This would mean that electronic persons would bear rights and duties in terms of contractual agreements. Granting such status to electronic persons to possess rights and responsibilities would require legislation allowing an electronic person to be assigned specific rights or specific responsibilities. In its current form, the ECTA does not accommodate such developments, and the legislature would have consider to what extent electronic persons will be regulated and recognised.

3.2 Future problems in e-commerce in South Africa

3.2.1 Immovable property

The matter of which type of signature to use for immovable property should not lead to uncertainty. As mentioned earlier, the ECTA does not address the issue of immovable property transactions. The ALA explicitly addresses this issue by stating that only a wet-ink signature is acceptable for immovable property transactions.[110] Even when such a transaction has initially been presumed to be conducted using an electronic signature,

[108] Coetzee (2004) at 517.

[109] Erlank W & Ramokanate L "Allocating the risk of software failures in automated messages systems (autonomous electronic agents)" (2016) 28(2) *South African Mercantile Law Journal* 201 at 203–204.

[110] Section 2 of the Alienation of Land Act 68 of 1981.

the courts have departed from that presumption and recognised the signature as valid only because it was a scanned copy of a wet-ink signature.[111]

However, this approach may introduce inconsistencies in regard to the use of wet-ink signatures because the way a person signs can differ each time. The concern that will be raised here is that wet-ink signatures are susceptible to forgery. This was seen in the case of *Legal Practice Council v Van Deventer,* where a suretyship agreement with the formality of a wet-ink signature was concluded with a forged signature.[112] Given that immovable property transactions typically involve significant sums of money, this inconsistency poses a notable risk for both parties involved. Furthermore, the risk is exacerbated by the court's acceptance of a scanned copy of a wet-ink signature as valid. Allowing such a practice could create a situation where individuals scan signatures that do not belong to them solely in order to make a contract appear valid and signed, which could lead to fraudulent practices.

3.2.2 Immovable property and AI contractual capacity

The field of contract law is intertwined with the dynamics of market operations,[113] primarily due to the multitude of transactions that occur within the marketplace daily. Put differently, stringent contractual regulations have the potential to exert a profound impact on economic development. It is worth highlighting that existing regulations in South Africa pertaining to the contractual capacity of AI and the execution of immovable property transactions in the realm of e-commerce may have adverse repercussions for economic efficiency. As previously alluded to, AI lacks the inherent capacity for entering contracts, and electronic signatures also lack recognition for immovable property transactions in South Africa. This may raise certain questions for the South African economy and its efficiency. Economic efficiency, in this context, can be understood as society's ability to maximise the benefits derived from its available resources.[114] In the sphere of technological advancement, economic efficiency is epitomised by the concept

[111] *Borcherds* (2021) at paras 25–28.

[112] *Legal Practice Council v Van Deventer* (EL 2569/2021) [2022] ZAECMKHC 124 at paras 8–26.

[113] Deakin S "*Capacitas*: Contract law and the institutional preconditions of a market economy" (2006) 2(3) *European Review of Contract Law* 317 at 317–318.

[114] Nieto M & Mateo JP "Dynamic efficiency in a planned economy: Innovation and entrepreneurship without markets" (2020) 84(1) *Science & Society* 42 at 44.

of dynamic efficiency. This notion underscores that economic progress is contingent on the capacity to adapt to emerging technologies.[115]

It is a reality that investors are reluctant to allocate capital to markets that exhibit resistance to embracing new technologies. This sentiment arises from the recognition that economic development hinges on adeptness in assimilating technology.[116] As such, regions where technological integration faces impediments may experience challenges in fostering economic growth. Given that economic growth plays a pivotal role in attracting investment, it is imperative to underscore that deficiencies in adapting to technology can pose substantial barriers to sustained economic development.

3.2.3 Assent for online contracts

Another issue stemming from the regulation of electronic contracts in South Africa is the potential for unfairness in contractual agreements, particularly when caused by contractual terms. Notably, where courts are confronted with contractual disputes, they typically refrain from undue interference with the contractual provisions agreed upon by the parties.[117] When adjudicating such matters, judges often employ the concept of public policy as a means of upholding the contract rather than rendering it void.[118] This implies that the public policy employed by the court tends to favour two principles, namely *pacta sunt servanda* and freedom of contract.

Pacta sunt servanda underscores the fundamental principle that agreements must be upheld, while freedom of contract emphasises the autonomy of parties to engage in contracts with whomever they choose and under terms they deem suitable.[119] Freedom of contract also entails that the contractual terms will be valid once the parties agree to such terms, and that this is so whether the terms have been read or not.[120] Once the court ascertains that these principles are upheld, it becomes relatively straightforward to

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[115] Abel AB, Mankiw NG, Summers LH et al. "Assessing dynamic efficiency: Theory and evidence" (1989) 56(1) *Review of Economic Studies* 1 at 5–6.

[116] Bassen J "Technology is not failing – it is transforming the economy" *OECD* available at https://www.oecd.org/en/about.html (accessed 28 June 2023).

[117] *Sasfin (Pty) Ltd v Beukes* 1989 1 SA 1 (A) at para 12.

[118] Muphangavanhu Y "Fairness a slippery concept: The common law of contract and the Consumer Protection Act 68 of 2008" (2015) 48(1) *De Jure Law Journal* 116 at 119–120.

[119] Muphangavanhu (2015) at 119–120.

[120] *Burger v Central South African Railways* 1903 TS 571 at 577–579.

enforce the contract regardless of whether its terms are perceived as equitable or not.[121] This approach is rooted in the objective of ensuring certainty in contractual relationships.

As noted previously, the ECTA does not prescribe the format in which contractual terms are to be made available to the opposing party. It cannot be overlooked that online contracts – predominantly employing mechanisms such as clickwraps – often entail a masking effect that can place the counterparty at a disadvantage, as certain terms may remain obscure or inaccessible.[122] Given that the primary objective of businesses is profit maximisation,[123] there is a potential for companies to exploit this masking effect to enhance their profitability. In doing so, they may capitalise on the court's approach. For example, Amazon has faced legal action alleging that it leveraged the masking effect to enrol customers in subscriptions without their full awareness.[124] In the South African context, such practices may raise questions about good faith in contracts. While the Constitution grants the freedom of contract, it is imperative to emphasise that this should not entail the exploitation of vulnerable parties in contractual relationships.[125]

3.3 An adaptive, robust legal framework in the UK

3.3.1 Immovable property

The approach to electronic signatures in English law differs from that of South Africa. As mentioned earlier, South Africa does not recognise electronic signatures for immovable property transactions. In contrast, the UK treats electronic signatures similarly to handwritten signatures in contractual agreements.[126] As long as an electronic signature meets the criteria outlined in the UK's eIDAS regulations, Electronic Communications Act

[121] Muphangavanhu (2015) 116 at 119–120; *Brisley v Drotsky* at para 34.

[122] Van Deventer (2021) at 237.

[123] Sucuahi W & Cambarihan JM "Influence of profitability to the firm value of diversified companies in the Philippines" (2016) 5(2) *Accounting and Finance Research* 149.

[124] Federal Trade Commision "FTC takes action against Amazon for enrolling consumers in Amazon Prime without consent and sabotaging their attempts to cancel" (21 June 2023) *FTC* available at https://www.ftc.gov/news-events/news/press-releases/2023/06/ftc-takes-action-against-amazon-enrolling-consumers-amazon-prime-without-consent-sabotaging-their (accessed 2 July 2023).

[125] Tladi DD "Breathing constitutional values into the law of contract: Freedom of contract and the constitution" (2002) 35 *De Jure Law Journal* 306 at 309.

[126] Section 7 of the Electronic Communication Act 2000. See also *Neocleous v Rees* [2019] EWHC 2462 (Ch) at para 57.

2000 (ECA), and established case law, it carries legal weight and is considered binding.[127] For example, the UK has implemented electronic conveyancing procedures permitting the use of advanced and qualified electronic signatures for property transactions.[128] For such signatures to be valid, all parties and witnesses must be present during their execution.[129] Conveyancers involved in the transaction are responsible for overseeing the electronic signature process to ensure its authenticity and legality.[130] This practice is in place to maximise the credibility of such transactions.

3.3.2 Assent for online contracts

In contract law, it is the case that whether a contract is executed digitally or in a tangible form, its validity hinges on the consensus *ad idem* or meeting of minds between the contracting parties.[131] This implies that a valid contract is contingent upon the parties being in full agreement. As in South Africa, consensus is an indispensable element of contractual requisites in the UK.[132] Clickwrap agreements have high enforceability in the UK.[133] In *Parker-Greenan v Camelot UK Lotteries Ltd*, the Court of Appeal held that clickwrap procedures can be used for the National Lottery's online platform.[134] It stated that clickwrap agreements are more clear and accessible when it comes to the terms and conditions procedure which makes clickwraps reasonable.[135] These agreements typically entail the granting of consent for data processing of users' personal information – which is a pivotal step for transactional completion. Within the context of such agreements, the prevailing standpoint is that consent can be considered bona fide only when the

[127] Adobe "Electronic signature laws & regulations – England, Wales & Northern Ireland" (1 April 2025) *Adobe* available at https://helpx.adobe.com/legal/esignatures/regulations/england-wales.html (accessed 24 June 2023).

[128] Section 91 of the Land Registration Act 2002.

[129] *Man Ching Yuen v Landy Chet Kin Wong First Tier Tribunal (Property Chamber)* 2020 (ref 2016/1089) at para 53; *Neocleous v Rees* at para 57; section 91(9)(a) of the Land Registration Act 2002.

[130] HM Land Registry Practice Guide 82: Electronic signatures accepted, 2023 guideline 7.

[131] Murray AD "Entering into contracts electronically: The real WWW" (n. d.) available at https://old.leginet.eu/articles/Entering%20Into%20Contracts%20Electronically.pdf (accessed 26 June 2023).

[132] Article 7 of the Regulation (EU) 2016/679 of the European Parliament and of the Council.

[133] Lindau B, Miyazaki T, Saraie C & Wang Z "The enforceability of online "wrap" agreement across key jurisdictions" (20 August 2025) *Caldwell* available at https://caldwelllaw.com/news/enforceability-online-wrap-agreements-us-uk-japan/ (accessed 12 February 2026).

[134] *Parker-Greenan v Camelot UK Lotteries Ltd* [2024] EWCA Civ 185 at paras 65 – 68.

[135] *Parker-Greenan v Camelot UK Lotteries Ltd* [2024] EWCA Civ 185 at para 66.

counterparty is provided with the opportunity to peruse and access the contractual terms.[136] During this examination, the party formulating the contract must give due regard to the protected characteristics enshrined in section 4 of the UK's Equity Act of 2010. These encompass age, sex, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion, and sexual orientation.[137]

The complexity of obtaining genuine consent in online contracts is no different in the UK thanin South Africa. While the UK legal system aims for proper consent, there is still a lack with regards to a rigid prescribed format for how terms must be presented.[138] Once this criterion is met, it can be posited that unequivocal consent has been duly procured. However, it is salient to recognise that although the legal framework in the UK has been designed to ensure the manifestation of proper consent in online contracts. This flexibility allows businesses and companies to design different interfaces, for example browsewraps and clickwraps, which makes it difficult to show that the user understood the terms of the contract. This parallel with the situation in South Africa suggests that the attainment of bona fide consent may be a somewhat intricate endeavour in the UK as well.

3.3.3 Contractual capacity of AI

There is no specific legislation in the UK addressing the legal capacity of AI. The UK is instead following the European Union's lead, particularly the initial proposal of the AI Act.[139] The UK is doing so in particular by proposing to insert AI regulations into existing laws.[140] This puts the UK in the same position as South Africa when it comes to the contractual capacity of AI, although South Africa has not made any initiative to make laws that specifically regulate AI. It is important to note that, in general, AI cannot independently enter contracts because it lacks legal capacity, making it legally incapable.

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[136] *Beta Computers (Europe) Ltd v Adobe Systems (Europe) Ltd* [1996] CLC at 821.

[137] Section 4 of the Equity Act 2010.

[138] Articles 3 and 7(2) of the Regulation (EU) 2016/679 of the European Parliament and of the Council.

[139] Shah S & Russon M "What is the AI Act – and what does it mean for the UK?" *The Standard* available at https://www.standard.co.uk/news/tech/ai-act-eu-regulation-uk-government-artificial-intelligence-b1080459.html (accessed 1 July 2023).

[140] Ross A "The state of AI regulation in the UK and EU" (3 August 2023) *Pennington Law* available at https://penningtonslaw.fmstage.co.uk/news-publications/latest-news/2023/the-state-of-ai-regulation-in-the-uk-and-eu (accessed 10 July 2023).

In terms of mental capacity for contract-related matters, individuals must be able to comprehend the consequences of their actions.[141]

3.4 Potential solutions, outcomes, and recommendations for future initiatives in South Africa

3.4.1 Immovable property

Regulations put in place to oversee a particular aspect of society are not intended to hinder economic growth. This is grounded in the constitutional right to dignity,[142] which emphasises that individuals should have the opportunity to achieve their full potential.[143] It is evident that achieving one's full potential is challenging without economic growth; therefore, for economic progress to occur, there is a need to reconsider the ECTA's stance on immovable property transactions.

The real estate sector is recognised as a significant investment area, one known for its potential to stimulate economic growth.[144] To tap this economic potential, South Africa should update its legislation, taking inspiration from the approach followed by the UK while ensuring compatibility with the Constitution.[145] In this context, it is essential to develop legislation that permits the use of electronic signatures for immovable property transactions. This could be achieved through the acceptance of qualified electronic signatures and advanced electronic signatures, as practised in the UK.[146] It is worth noting that the ECTA already acknowledges that advanced electronic signatures must be accredited in order to be considered valid. This measure instils a sense of security, particularly in the case of substantial transactions.

When considering the acceptance of electronic signatures, it is crucial to prioritise those with robust authentication measures in place to mitigate the risks associated with inconsistencies and forgery. To achieve this, the adoption of advanced electronic

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[141] *Banks v Goodfellow* (1870) LR 5 QB 549 at 558.

[142] Section 10 of the Constitution of the Republic South Africa, 1996.

[143] *Dawood and Another v Minister of Home Affairs and Others* 2000 (8) BCLR 837 (CC) at paras 35–37.

[144] Merkado G "How technology can boost your next investment" (September 2017) *Financier Worldwide* available at https://www.financierworldwide.com/how-technology-can-boost-your-next-investment (accessed 28 June 2023).

[145] Section 39 of the Constitution of South Africa, 1996.

[146] Section 91 of the Land Registration Act 2002.

signatures and qualified electronic signatures, akin to the approach in the UK,[147] is advisable. The ECTA already outlines a procedure for validating an advanced electronic signature. For such a signature to be validated, it must undergo accreditation by the Minister,[148] a process also involving biometric scanning[149] and consequently minimising the potential for forgery. Furthermore, qualified electronic signatures should be introduced. This entails permitting qualified service providers to issue electronic signatures when they have a qualified certificate for electronic signatures.[150] The approach ensures a high level of consistency and authenticity, and mirrors the security standards of an advanced electronic signature.

3.4.2 AI contractual capacity

The issue of granting legal personality to AI has been a subject of intense debate, primarily due to concerns surrounding liability. The crux of the debate lies in the challenge of holding AI accountable for its actions, a matter which is exceptionally complex. This quandary has led the UK Parliament, among others, to abstain from granting legal personality to AI, citing the same liability concerns.[151]

South Africa should consider a similar approach. The ECTA has already provided a mechanism for recognising AI as an electronic agent.[152] This provision offers a pragmatic solution to the issue of contractual liability. Under this framework, liability would ultimately rest with the human operator or controller who wields authority over the AI.[153] The approach aligns with the broader objective of embracing technological advancements, as one of the fundamental purposes behind AI development has been to enhance efficiency and quality of human life.[154] By utilising AI in accordance with the guidelines laid out in the ECTA, the objective of streamlining daily life and operations could still be realised. This, in turn, would have the potential to contribute to economic

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[147] Section 91 of the Land Registration Act 2002.

[148] Section 37 of the ECTA.

[149] Swales (2022) at 80.

[150] Swales (2022) at 81.

[151] Chapter 8 of the *Artificial Intelligence Committee Report of Session 2017–19 – AI in the UK: Ready, willing and able?* London: House of Lords (2017) at para 310.

[152] Sections 1 and 20 of the ECTA.

[153] *Maye Serobe (Pty) Ltd v LEWUSA obo Members and Others* (J2377/12) [2015] ZALCJHB 116 at para 24.

[154] Scott G "Artificial intelligence: What it is and how it is used" (12 October 2025) *Investopedia* available at https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp (accessed 28 June 2023).

growth, as it exemplifies adaptation to evolving technology. Nevertheless, it is important to acknowledge that the matter remains open to debate and exploration.

Implementing this solution would raise the question of the person accountable for AI liability. In this regard, the ECTA highlights that the originator of the AI will be held accountable.[155] The term "originator" is said to mean the person acting on his or her own behalf, rather than serving as an intermediary.[156] This type of approach would lead only to problems because there will be instances where the wrongfulness of the act of an AI would be due to the fault of the AI. The problem here will be that the originator will account to liability that should not be directed to him or her. In this regard, the proper approach will be to make the person who is the maker of the AI vicariously account for the liability unless the action for wrongfulness was caused by the originator.

3.4.3 Assent for online contracts

Remarks made in *Burger v Central South African Railways* highlight that under South African law the court does not recognise the authority to nullify a contractual party's agreement solely on the basis of the unfairness of the terms.[157] Unfairness in this regard can be successful only in exceptional cases. This implies that when applying the principle of freedom of contract, it is assumed that an individual has exercised his or her freedom willingly when accepting the terms. This alignment with the court's application of public policy, as previously discussed, can result in a situation where one party is bound by a contract deemed unfair. It is important to note that there are instances where legislation can intervene to circumvent this principle. In such cases, legislation may prescribe conditions for establishing fair contracts.[158]

As established, the ECTA remains silent on the specific format required for presenting terms in electronic contracts.[159] To prevent the formation of unfair electronic contracts, it would be reasonable to consider amending the ECTA to include provisions that specify the required format. For instance, such provisions could mandate that if clickwraps are used, the provided information must adhere to certain word limits or present the most

[155] Section 25 of the ECTA.

[156] Section 1 of the ECTA.

[157] *Barkhuizen v Napier* 2007 (7) BCLR 691 (CC) at para 57.

[158] Tladi (2002) at 309.

[159] Van Deventer (2021) at 237.

crucial terms of the transaction prominently in clear and concise language. This approach aligns with the principle of fostering proper freedom of contract. Often, individuals hesitate to engage in electronic contracts because clickwraps tend to overwhelm them with excessive information, discouraging thorough review of the terms.[160] By implementing such provisions, a more equitable and transparent contracting environment can be established. Not only would this result in transparent contracting, but it would also reduce the number of matters that are taken to court in this regard. This means that this resolution would also aid in avoiding litigation costs.

4 CONCLUSION

While the evolution of technology has ushered in unprecedented convenience and efficiency in many facets of our lives, it has also brought forth a host of legal challenges, especially in the realm of online contracts. One of the pivotal elements for ensuring the integrity and enforceability of these digital agreements is the concept of assent. As we delve into the intricacies of assent to online contracts, it becomes apparent that its role extends far beyond a mere formality. In this brief comparative analysis, we navigated the nuances of assent, examining its legal implications, technological considerations, and the changing landscape of digital transactions.

At its core, assent in the context of online contracts refers to the unequivocal agreement of the parties involved to the terms and conditions presented. This agreement, often manifested through a click, checkbox, or other interactive feature, serves as the digital counterpart to the traditional signature in a paper-based contract. In the legal arena, the foundational concept of contract law is the idea that parties must enter the contract willingly and knowingly. This principle holds true in both the physical and digital domain. The challenge in the digital domain lies in ensuring that assent is not only present but meaningful. Courts and legal practitioners alike have grappled with questions surrounding the adequacy of online assent, raising concerns about issues such as the visibility of terms, user comprehension, and the potential for exploitation. In conclusion, the digital realm introduces unique challenges and opportunities that necessitate a careful examination of the principles and mechanisms governing assent.

[160] Van Deventer (2021) at 237–238.

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