



The use of Artificial Intelligence in Alternative Dispute Resolution practice

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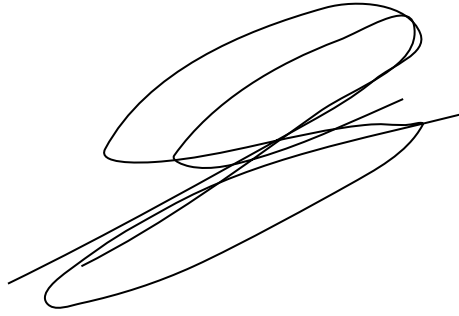
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ACRONYMS

AAA - American Arbitration Association

ACHPR - African Commission on Human and Peoples' Rights

ADR - Alternative Dispute Resolution

AI - Artificial Intelligence

FDA - Food and Drug Administration

FTC - Federal Trade Commission

NCAIR - Center for Automated Information Research

NIST - National Institute of Standards and Technology

ODR - Online Dispute Resolution

SA - South Africa

USA - United States of America

4IR - Fourth Industrial Revolution

ABSTRACT

This dissertation examines Artificial Intelligence and the manner it is used in Alternative Dispute Resolution practices. The study focuses on the legislative framework, challenges and overall implementation of AI in dispute resolution practices.

Artificial intelligence, stemming from an idea born in the 1950s as a means for experts to access computational intelligence, has progressed to such an extent that it roughly controls 200 billion dollars of the world's economy in the present day. Despite this monumental growth, this dissertation acknowledges the shortcomings of artificial intelligence by exploring (amongst others) its threat to confidentiality of users, the presentation of algorithmic bias and overall security concerns. This study provides a thorough evaluation of AI's role in promoting the accessibility and efficiency of ADR while addressing potential challenges and risks related to data breaches, privacy concerns and systemic bias. This study further highlights the importance of adopting much needed regulating frameworks that can properly address and minimise these challenges and risks, specifically from a South African point of view. Finally, this study will render recommendations to address the lack of legal regulation in AI as well as how to effectively address the adversities that Alternative Dispute Resolution practices present.

CHAPTER 1: INTRODUCTION

1. Introduction

The goal of this study is to analyse Artificial Intelligence (AI) as a concept and to discuss the way(s) it is enforced in ADR practices. This dissertation will investigate the legal framework and how the enforcement of AI in ADR mechanisms introduces plenty of challenges, which include security, legal and ethical worries.

I will also examine the effectiveness of AI to efficiently address the perplexities of ADR practices, especially given the limited legal regulation to govern AI-driven ADR practices.

2. Background

AI is increasingly being implemented not only into the legal world but also in ADR practices. Its implementation presents multiple dangers and risks, which include “algorithmic bias and discrimination,”¹ “confidentiality and liability concerns,”² and “unclear international law privacy, and compliance”³. All these issues can be attributed to the lack of legal regulation of AI. AI is increasingly being adopted in ADR practices and such an integration emphasises a shift as to how ADR disputes are handled and resolved.⁴ This is happening especially in an era where there is an increase in the amount of interest using technological advancements like AI in the Fourth Industrial Revolution (hereinafter referred to as ‘4IR’).⁵ Despite these implementations, law practitioners have been warned to be cautious of AI, as, “the computers are coming for our jobs”.⁶ The same dangers and threats apply to AI-driven ADR mechanisms.

¹ Unknown Author(s) ‘AI risks for lawyers: how to embrace AI safely’ 18 September 2023 <https://juro.com/learn/ai-risks> (accessed 4 January 2024); see also N Safdar *et al* ‘Ethical considerations in artificial intelligence’ 122 (2020) *European Journal of Radiology* 1, 2.

² Tristan Ovington ‘7 AI legal issues and how to deal with them’ 11 June 2024 <https://www.walkme.com/blog/ai-legal-issues/> (accessed 4 January 2024); see also Y Zhang *et al* ‘Ethics and privacy of artificial intelligence: Understandings from bibliometrics’ (2021) 222 *Knowledge-Based Systems* 9.

³ Ovington (n 2 above).

⁴ Saleem Shaheen ‘The Role of AI in Enhancing ADR: How AI is transforming dispute resolution processes?’ LinkedIn Article <https://www.linkedin.com/pulse/role-ai-enhancing-adr-how-transforming-dispute-saleem-shaheen-sj8sf> (accessed 25 February 2024).

⁵ M Ally & K Perris ‘Artificial Intelligence in the Fourth Industrial Revolution to Educate for Sustainable Development’ (2022) 48 *Canadian Journal of Learning & Technology* 1; see also R Morrar *et al* ‘The Fourth Industrial Revolution (Industry 4.0): A Social Innovation Perspective’ (2017) 7(11) *Technology Innovation Management Review* 13 - 15.

⁶ *Makunga v Barlequins Beleggings (Pty) Ltd t/a Indigo Spur* 2023 SA 332 (HC).

This dissertation, however, will provide a balanced view to lessen fears and explore the prospects of AI working hand in hand with humans to enhance ADR.

3. Problem Statement

Existing research shows that this increasing implementation of AI in the law is causing threats such as biased findings,⁷ confidentiality,⁸ and security breaches,⁹ as well as a lack of regulation regarding AI legislation.¹⁰ Despite an increase in the implementation of AI in ADR, there remains a substantial lack of research about AI-driven ADR from a South African perspective. This study aims to address this gap accordingly.

4. Preliminary Literature Review

The increasing application of AI in ADR and law overall is creating a multitude of challenges and risks, but it can also be utilised in plenty of ways,¹¹ for example using predictive coding to initiate ‘e-disclosure software for document reviews’¹² in ADR processes. By following the evolution of AI, which in its earliest days was formed by Aristotle, who intended to codify styles of ‘deductive reasoning that he called syllogisms’.¹³ to an evolution that currently controls over 200 billion dollars of the world’s economy presently.¹⁴ This evolution shows that AI is an ever-growing movement that will soon control every aspect of life, including ADR methods.¹⁵

AI is described as a type of computer technology that is concerned with creating computers to behave more like humans.¹⁶ John McCarthy also dubbed AI as “the

⁷ IBM Data & AI Team ‘Shedding light on AI Bias with real world examples’ <https://www.ibm.com/blog/shedding-light-on-ai-bias-with-real-world-examples/> 16 October 2023 (accessed 27 February 2024).

⁸ B Stahl *Artificial Intelligence for a Better Future, an Ecosystem Perspective on the Ethics of AI and Emerging Digital Technologies* (2021) 38.

⁹ Stahl (n 8 above) 38.

¹⁰ Stahl (n 8 above) 39.

¹¹ H Alessa ‘The role of Artificial Intelligence in Online Dispute Resolution: A brief and critical overview’ 31(3) *Information & Communications Technology Law* 320; see also Carneiro *et al* ‘Online dispute resolution: An artificial intelligence perspective’ (2014) 41 *Artificial Intelligence Review* 211 – 240.

¹² Tracey Summerell & Aileen Banks ‘AI’s value in Dispute Resolution is growing - but keep your human brain engaged’ 3 December 2023 <https://www.dentons.com/en/insights/articles/2024/february/19/ais-value-in-dispute-resolution-is-growing-but-keep-your-human-brain-engaged> (accessed 9 April 2024).

¹³ N Nilsson *Artificial Intelligence: A New Synthesis* (1998) 8.

¹⁴ Bergur Thormundsson ‘Artificial Intelligence (AI) worldwide statistics & facts’ 16 February 2024 <https://www.statista.com/topics/3104/artificial-intelligence-ai-worldwide/#topicOverview> (accessed 17 February 2024).

¹⁵ W Ertel *Introduction to Artificial Intelligence* (2017) 11.

¹⁶ R Gupta ‘Research Paper on Artificial Intelligence’ (2023) 12 *International Journal of Engineering and Computer Science* 25654.

science and engineering of making intelligent machines”.¹⁷ Additionally, it must be mentioned that AI-powered systems are more frequently used to “facilitate negotiations in ADR” and that such systems can “process legal documents and suggest optimal negotiation strategies”.¹⁸ Despite all these definitions, AI is increasingly being implemented in ADR, especially in the form of Online Dispute Resolution (hereinafter referred to as ‘ODR’).

The legal world has a history of being notoriously hesitant to integrate modern technology, but despite this reputation, the legal world has been more welcoming of the utilisation of AI systems to: “increase docket speeds, optimise case management, and fill gaps in access to justice”.¹⁹ Atrey (2023) corroborates this finding by Brooks (2022), by stating that AI usage in the legal world is still at its beginning stage of development, yet its implementation is advancing rapidly.²⁰ Similarly, both authors have studied AI in the legal sphere and found there to be “legal and morally-based ethical concerns”²¹ when implementing AI systems in the legal world, however, neither author discusses these concerns in the context of ADR. Researchers have however found there to be problems relating to the integration of AI in the legal world, which includes concerns such as “privacy, bias, and accountability.”²²

From a South African perspective, local authors argue that adopting dispute resolution methods powered by AI may turn out to be beneficial for South Africa as there is a substantial need for the usage of AI in ADR to resolve disputes due to the high costs of litigation.²³ Other authors upper the argument that the lack of proper regulation regarding AI constitutes a “violation of human rights norms”²⁴. Additionally, researchers argue that regulatory, security and ethical concerns regarding the

¹⁷ C Collins *et al* ‘Artificial intelligence in information systems research: A systematic literature review and research agenda’ (2021) 60 *International Journal of Information Management* 2.

¹⁸ Shaheen (n 4 above).

¹⁹ W Brooks ‘Artificial Bias: The Ethical Concerns of AI-Driven Dispute Resolution in Family Matters’ (2022) 9 *Journal of Dispute Resolution* 117; see also AE Davis ‘The Future of Law Firms (and Lawyers) in the Age of Artificial Intelligence’ (2020) 16 *Revista Direito GV* 4 - 7.

²⁰ I Atrey ‘Revolutionising the Legal Industry: The Intersection of Artificial Intelligence and Law’ (2023) 6(3) *International Journal of Law Management & Humanities* 1076.

²¹ Brooks (n 19 above) 118.

²² Atrey (n 20 above) 1077.

²³ S Reddy ‘Implementing A South African E-Dispute Resolution System for Consumer Disputes’ (2020) 41 *Obiter* 371.

²⁴ R Vijayarasa & J Bello y Villarino ‘International Human Rights, Artificial Intelligence, and the Challenge for the Pondering State: Time to Regulate?’ (2022) *Nordic Journal of Human Rights* 1.

utilisation of AI in the African continent have “fuelled debates on the need for laws to regulate AI on the continent.”²⁵

5. Research Objectives

The primary objective of the study is to thoroughly investigate the manner in that AI is implemented and used in ADR practices, especially in today’s digital age, which is constantly developing under the 4IR. Furthermore, the study will investigate the shortcomings and adversities of these ADR practices and conclude whether AI is a sufficient mechanism to address these challenges. An example of this is if AI-driven ODR can promptly address the accessibility & cost issues that ADR practices present, especially in countries with few resources and where parties have difficulty accessing ADR processes due to their regions.²⁶ This dissertation seeks to highlight the importance of regulating AI from a legal perspective (especially in an African context) and also evaluate the relationship between AI and ADR overall.²⁷

6. Main Research Questions

- I. What is the legal framework of ADR and AI?
- II. What does AI encompass and how is it used in ADR practices in a present-day digital era?
- III. What are the risks and shortcomings of implementing AI in ADR practices?
- IV. Is AI capable enough to address the adversities and challenges that ADR practices present, such as biased rulings, accessibility issues, and language difficulties?

7. Research Methodology

To write this paper, I will be using desktop research methods to conduct research and to answer the research questions proposed. This mode of research will consist of fundamental & analytical research. Furthermore, I will make use of both primary and secondary sources to gather evidence and supporting material.

²⁵ Melody Musoni ‘Looking into the crystal ball: Artificial intelligence policy and regulation in Africa’ 18 September 2023 <https://ecdpm.org/work/looking-crystal-ball-artificial-intelligence-policy-regulation-africa> (accessed 4 January 2024).

²⁶ Webnyay ‘An overview of challenges in ADR mechanism in India’ 4 September 2023 <https://disputeresolution.medium.com/an-overview-of-challenges-in-adr-mechanism-in-india-e15168a3260b> (accessed 9 April 2024); see also A Singh ‘ADR Mechanism in India: Achievements and Challenges’ (2016) 5(8) *Paripex - Indian Journal of Research* 112, 113.

²⁷ C Rossouw ‘Jumping the gun? The legality of a plea of anticipatory self-defence in the face of nuclear proliferation’ LLM Dissertation, University of Pretoria 2022 3.

The analytical research will allow me to study existing facts and draw conclusions to answer the research questions. The secondary sources will refer to journal articles, scholarly dissertations, and websites. The last-mentioned sources will ensure that I have access to a wider spectrum of research findings as opposed to primary sources. Lastly, I will be making use of Google Scholar to conduct research and find articles. I will also make use of the legal resources at Oliver Tambo Law Library located at the University of Pretoria.

8. Significance of the Study

This study has a multi-purpose. There is a lack of academic publications relating to the issues and challenges that I have mentioned in this study, especially in South African academia and in a South African context.

Secondly, this paper is relevant in the sense that it is practical and relates to real-world issues and scenarios. Thirdly, this paper examines the practical aspect(s) of AI developments that have occurred during the 4IR and the impact it might have on society.

9. Chapter Overview

Chapter 1 - Introduction

This chapter introduces the study and sets out the research statement and explains how the dissertation will address the gap in literature exposed chapter by chapter.

Chapter 2 - Exploring Alternative Dispute Resolution (ADR) & AI practices and frameworks and their implementation in ADR practices.

Chapter 2 will explore various ADR mechanisms and discuss the legal framework of AI. Furthermore, chapter 2 will investigate the implementation of AI in ADR practices in detail, with a focus on recent developments and implementations in South Africa. I will investigate how South African legislation addresses AI within the realms of legislative decision-making and ADR, and analyse how ADR mechanisms are being changed by AI technology.

Chapter 3 - Analysing the challenges: AI vs ADR and the legal regulation and use of AI in Africa.

In this chapter, I will investigate the challenges and adversities of AI, as well as ADR mechanisms and compare these challenges with each other. By comparing these challenges, I will establish whether AI can be a sufficient tool to address the problems that ADR practices present (such as bias and high-cost practices).

Chapter 4 - 'Possible remedies for the current issues in AI & ADR and conclusion'.

In this final chapter, I will discuss the findings and conclusions of the dissertation. I will render recommendations and propose solutions for the challenges discussed in Chapter 3. Along with proposed solutions, I will also present the reader with evidence in support of my arguments and recommendations.

CHAPTER 2:

Exploring Alternative Dispute Resolution (ADR) & AI practices and frameworks and their implementation in ADR practices.

1. Introduction

“The majesty of law is to achieve what centuries of blood and iron were not capable of”.²⁸ This quote represents everything that the law has turned into, from a system that used to rely on brute force to achieve justice, to a transformed system that is implementing means like AI to achieve outcomes that used to be unattainable. To fully understand ADR mechanisms and how AI is implemented into the mechanisms, the law itself must be understood first. When examining the nature and origins of law, two prominent thoughts stand out, namely natural and positivist law.²⁹ The positivist position asserts that “a law’s normativity is not based on morality but on continuing matters of social fact”.³⁰ Positivist law emphasises that there is no clear connection

²⁸ W Hallstein *Die Europäische Gemeinschaft* (1979) 53; see also M Burnay *Chinese Perspectives on the International Rule of Law* (2018) 11.

²⁹ D Meyerson *Jurisprudence* (2013) 6; see also D de Goede ‘An International Authority in the Case of First Contact with An Extra-Terrestrial Intelligence’ LLM Dissertation, University of Pretoria, 2022 24.

³⁰ Meyerson (n 29 above) 35; see also de Goede (n 29 above) 24.

between morality and law, and that there must be compliance with legislative rules.³¹ In contrast to positivism, natural law is a system of rules that consists of the highest standard for moral and ethical ideas that humanity must be striving for.³² Natural law also highlights the importance of the principle of “do good and avoid evil”.³³ Despite overwhelming differences between natural law and positivist thoughts, Meyerson mentions that the two thoughts overlap significantly.³⁴

By shedding light on the essential principles of law as expressed by the natural and positivist law perspectives mentioned above, I am providing the reader with comprehensive insight into the integration of AI into ADR mechanisms. By using and implementing AI technology, ADR mechanisms can make sure they adhere to legislative requirements (from a positivist viewpoint), whilst also adhering to moral and ethical considerations (from a natural law perspective). This brief introduction serves as a foundation for the rest of this chapter which will contain three central points, namely, to identify and explain ADR mechanisms and how AI is implemented in ADR practices.³⁵ Furthermore, the chapter will discuss the legislative framework of AI and analyse how ADR mechanisms are being influenced by AI technology.³⁶

2. History and Overview of ADR Mechanisms

Dispute resolution outside of the courtroom is not a new phenomenon, as societies worldwide have used indigenous and out-of-court practices to settle disputes.³⁷ The only recent innovation in the ADR movement can be seen as the proliferation and promotion of ADR mechanisms, the broader use of ADR that is court-connected and the expanding usage of ADR as an instrument to attain goals other than settlements of exact disputes.³⁸ ADR is a movement that commenced in the US during the 1970s, that originated as a social initiative to settle universal civil right conflicts through the

³¹ Santiago Poli ‘Legal Positivism vs Natural Law: Philosophies of Law and Morality’ 29 December 2023 <https://www.vintti.com/blog/legal-positivism-vs-natural-law-philosophies-of-law-and-morality> (accessed 8 April 2024).

³² A.G. Chloros ‘What is Natural Law?’ (1958) 21 *The Modern Law Review* 609.

³³ J.E. McAniff ‘The Natural Law — Its Nature, Scope and Sanction’ (1953) 22(3) *Fordham Law Review* 248.

³⁴ Meyerson (n 29 above) 2 – 6; see also D de Goede (n 29 above) 24.

³⁵ R Baboolal-Frank ‘A critical analysis of tribunals in South Africa to create a harmonised tribunal system’ LLD Dissertation, University of Pretoria, 2019 28.

³⁶ Baboolal-Frank (n 35 above) 28.

³⁷ S Brown *et al Alternative Dispute Resolution Practitioners Guide* (1998) *Center for Democracy and Government* 5.

³⁸ Brown *et al* (n 37 above) 5.

means of mediation.³⁹ It was also a movement that began with the intention to tackle increasing expenses and delays in litigation proceedings as a result of overcrowded court systems.⁴⁰ ADR can be defined as “the forms of dispute resolution other than court litigation or adjudication through the courts”⁴¹ and has been praised for its cost-effectiveness, adaptability and focus on collaboration.⁴² As the legislative landscape continues to develop, ADR is very likely to play a more notable role in influencing how conflict resolution is approached.⁴³ As mentioned in Chapter 1, the different types of ADR mechanisms will be discussed. ADR mechanisms consist of negotiation, arbitration, mediation and conciliation.⁴⁴ For purposes of this paper, only arbitration, mediation and conciliation will be briefly discussed.

Arbitration is a dispute resolution method where the relevant dispute is submitted to a neutral arbitrator(s), who were mutually chosen by the parties, who then review the evidence and settle the dispute by making an award that is binding and final.⁴⁵ Despite its drawbacks, which are discussed below, arbitration has many advantages. Such advantages include consensus and neutrality (as the proceedings are conducted willingly by the parties who also choose the language and venue of the proceeding).⁴⁶ Other advantages include confidentiality (as long as an order is not made an order of the court),⁴⁷ time efficiency (as arbitration proceedings are often completed more swiftly than court proceedings),⁴⁸ and cost-effectiveness (arbitration is less formal than court proceedings with much fewer procedural prerequisites).⁴⁹

³⁹ Brown *et al* (n 37 above) 5.

⁴⁰ Brown *et al* (n 37 above) 5.

⁴¹ I Snyman ‘Critically engage with international arbitration as a phenomena analysing comparative jurisdictions with the view of lessons learnt for moving arbitration ahead of the digital age’ University of Pretoria 5; see also T Wiese *Alternative Dispute Resolution in South Africa* (2016) 1.

⁴² T Sharma ‘The Role of Alternative Dispute Resolution in Modern Legal Practice’ LinkedIn Article 28 September 2023 <https://www.linkedin.com/pulse/role-alternative-dispute-resolution-modern-legal-practice-sharma> (accessed 29 April 2024).

⁴³ Sharma (n 42 above).

⁴⁴ S Brown *et al* (n 42 above) 4.

⁴⁵ Andrew Banks ‘Arbitration as a form of alternative dispute resolution’ <https://www.gawielerox.co.za/blog/arbitration-form-alternative-dispute-resolution> accessed (2 May 2024); see also Unknown Author(s) ‘Arbitration’ <https://www.ccma.org.za/arbitration/> (accessed 3 May 2024).

⁴⁶ Banks (n 45 above).

⁴⁷ Banks (n 45 above).

⁴⁸ Unknown Author(s) ‘The Benefits of Arbitration’ 22 February 2023 <https://www.abgross.co.za/the-benefits-of-arbitration/> (accessed 3 May 2024).

⁴⁹ Unknown Author(s) (n 48 above).

Mediation is an organised and confidential process where an unbiased mediator (a neutral third party) interjects between two conflicting parties to settle the dispute at hand.⁵⁰ A mediator solves a dispute by encouraging discussion between conflicting parties.⁵¹ During these discussions, the mediator guides the conflicting parties in identifying the problems and issues that led to the dispute in the first place.⁵² Mediation is a voluntary process and mediation decisions are not enforceable unless the parties developed and concurred on a mediation settlement agreement to be enforced.⁵³ As with arbitration, mediation is not tied down to time regulations and is cost-effective as it does not rely on expensive court processes and has little to no concealed costs.⁵⁴ The mediator to a dispute remains unbiased and offers the conflicting parties a win-win solution by advocating reconciliation.⁵⁵

Conciliation is by law, a compulsory procedure that is brought before a Bargaining Council, the CCMA or any other certified agency, where a conciliator tries to help the conflicting parties to settle a 'workplace dispute'.⁵⁶ As with arbitration and mediation, conciliation is a confidential, neutral and private process that is conducted without prejudice.⁵⁷ The process offers time-efficient conflict resolution that is also cost effective, as the process does not rely on litigation or court procedures.

When analysing the above mechanisms, it becomes evident that ADR offers more procedural simplicity than general litigation, hence its cost and time effectiveness. ADR's time efficiency is enticing in South Africa. At the end of November of 2023, approximately 264 reserved judgments have been outstanding for longer than six

⁵⁰Andrew Banks 'How to become a mediator in South Africa' <https://www.gawielerox.co.za/blog/how-become-mediator-south-africa> (accessed 4 May 2024).

⁵¹ Banks (n 50 above).

⁵² Banks (n 50 above).

⁵³ F Wilking 'The enforcement and setting aside of mediation settlement agreements: A comparison between German and international commercial mediation' LLM Dissertation, University of Cape Town, 2015 8.

⁵⁴ Tracey-Leigh Wessels 'Ten Advantages of Mediation' <https://www.traceyleighwessels.com/ten-advantages-mediation/> (accessed 5 May 2024).

⁵⁵ Wessels (n 54 above); see also Banks (n 50 above).

⁵⁶ CCMA "Conciliation" Copyright CCMA Info Sheet: Conciliation available at: <https://www.ccma.org.za/wp-content/uploads/2022/01/Conciliation-Information-Sheet-2020-01.pdf> 2020 (accessed 5 May 2024).

⁵⁷ CCMA (n 56 above).

months.⁵⁸ There is a clear need for ADR practices, as it is currently becoming more relevant in the legal sector and offer a more cost-effective alternative to litigation.

3. Legal framework of AI and ADR

The integration of AI into ADR practices brings forward the issue of ethical concerns, technology, and law(s). It cannot be stressed enough that AI technologies carry the capability to immensely improve the efficiency and accessibility of ADR mechanisms. I say this especially as the technology becomes more advanced and futuristic. An integration like this necessitates a detailed legal framework that can properly address the plethora of issues associated with biased rulings, privacy concerns and accountability and procedure transparency. I will discuss the legislative framework of AI in ADR from an international perspective, as well as South African.

The recent launch of platforms such as ChatGPT and Google Bard has created such a stir that personalities like Elon Musk and Stuart Russel have come together to sign an open letter proposing a six-month suspension of any AI innovations.⁵⁹ AI is raising many concerns, including moral, social and legal, which are encouraging many countries to quickly create AI regulations and legislation.⁶⁰ In the USA, the decentralised AI model of regulation mirrors its overall approach to regulation, as most of the authoritative policies and practices focus on sectoral stages.⁶¹ The US has opted for a use-case, ad hoc approach to AI guidelines via state-level engagements.⁶² The US approach is also more decentralised, as administrative agencies undertake the role of surveilling AI platforms and systems without correctly creating regulatory frameworks applicable to AI.⁶³ Additionally, the US has stated the importance of developing soft-law tools coupled with a risk-orientated approach, this approach

⁵⁸ Marecia Damons 'Over 260 court judgments outstanding for more than six months' 14 November 2023 <https://groundup.org.za/article/over-260-court-judgments-outstanding-for-more-than-six-months/> (accessed 6 May 2024).

⁵⁹ L.C. Kubota 'The Role of The Executive Branch in The Regulation Of AI: The Experience of Japan, UK, USA, and Lessons for Brazil' (2023) 73 *Radar* 7.

⁶⁰ Kubota (n 59 above) 7; see also Savio Jacob 'AI Regulations Around the World: A Comprehensive Guide to Governing Artificial Intelligence' 30 April 2024 <https://www.spiceworks.com/tech/artificial-intelligence/articles/ai-regulations-around-the-world/> (accessed 8 May 2024).

⁶¹ Jacob (n 60 above).

⁶² Alison Gillwald and Liz Orembo 'An overview of the global AI regulation landscape' 5 April 2024 <https://researchictafrica.net/2024/04/05/an-overview-of-the-global-ai-regulation-landscape/> (accessed 10 May 2024).

⁶³ E Adamakis 'A Comparative Analysis of the EU and US Artificial Intelligence (AI) Regulation Regimes' LLM Dissertation, International Hellenic University, 2023 39.

however has been condemned by commentators.⁶⁴ Critics insist that this approach creates imbalances in the development of efficient policies relating to AI, directly contributing to the irregular execution of the law.⁶⁵ The US launched its primary federal proposal to regulate AI in February 2019, to render extensive guidance to governmental agencies relating to the development of standards for AI, whilst also adopting strategies for mitigating hindrances that will halt innovation.⁶⁶ In October 2022, the US government initiated an updated evaluation of the regulatory measures relating to AI by issuing the ‘Blueprint for an AI Bill of Rights.’⁶⁷ The harmful consequences that AI presents to financial security and civil liberties are examined by this blueprint, and this blueprint also outlines five fundamentals invented to mitigate these risks.⁶⁸ In 2023, the US executed the Biden Executive Order relating to unbiased treatment and with the document containing detailed conditions obligating US institutions to create regulated and unregulated interventions regarding their directives, for example, mitigating risks on public rights.⁶⁹ The Executive Order is regarded as one of the most pronounced AI directives at a national level, with its impact being acclaimed internationally.⁷⁰ As a response to the Biden Executive Order President Biden asserted that ‘to realize the promise of AI and avoid the risks, we need

⁶⁴ Adamakis (n 63 above) 39; see also J.F. Weaver ‘Regulation of AI in the US’ in Barfield, W. Pagallo, (eds) *Research Handbook on the Law of AI* (2018) 162 – 177, see also M Geistfeld *et al* ‘Comparative Law Study on Civil Liability for AI’ in E. Karner *et al* (eds) *Civil Liability for AI and Software* (2023) 133-135.

⁶⁵ Adamakis (n 63 above) 39; see also Donald J. Trump ‘Executive Order 13859 Maintaining American Leadership in AI’ 11 February 2019 available at: <https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence/>. The federal approach was further elaborated by the Donald J. Trump ‘Executive Order 13960 Promoting the Use of Trustworthy AI in the Federal Government’ 3 December 2020 available at: <https://www.federalregister.gov/documents/2020/12/08/2020-27065/promoting-the-use-of-trustworthy-artificial-intelligence-in-the-federal-government>.

⁶⁶ Adamakis (n 63 above) 39; see also Trump (n 65 above).

⁶⁷ Adamakis (n 63 above) 41; see also The White House ‘Blueprint for an AI Bill of Rights’ (2022) available at: <https://www.whitehouse.gov/wp-content/uploads/2022/10/Blueprint-for-an-AI-Bill-of-Rights.pdf> 2 – 73 (accessed 25 August 2024); see also D Milanese ‘Embracing the Artificial Intelligence (AI) Revolution: Spotlight on AI Regulation in Europe, the United Kingdom, and the United States’ (2023) 104 *Stanford – Vienna Transatlantic Technology Law Forum* 50.

⁶⁸ Adamakis (n 63 above) 41, see also Joseph R. Biden ‘Executive Order 14091 Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government’ 16 February 2023 available at: <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/> (accessed 27 August 2024).

⁶⁹ Adamakis (n 63 above) 41.

⁷⁰ Gillwald & Orembo (n 62 above).

to govern this technology'.⁷¹ Similar to the EU AI Act, the approach that the U.S. has taken toward AI is a risk-based approach, which was implemented to focus on how a corporation utilises technology and why, instead of limiting the powers of the technology used.⁷² Despite mitigating the risks of AI, critics have noted that the U.S. should implement federal bureau AI regulation strategies and use these strategies for creating tactical AI governance.⁷³ The U.S. must also enforce a legislative system to govern online networks and platforms.⁷⁴

The US federal agencies such as the FTC (Federal Trade Commission), the FDA (Food and Drug Administration) and NIST (National Institute of Standards and Technology) provide guidance to regulate AI.⁷⁵ In January 2023, NIST released a voluntary and cross-industry guide for technology corporations creating and deploying AI mechanisms to help mitigate the several dangers of AI called the RMF (Artificial Intelligence Risk Management Framework 1.0).⁷⁶ In addition to the release of the RMF, the FTC has indicated that it might soon heighten its inspections of corporations and businesses that utilises AI, the FTC also published posts on its blog warning corporations to refrain from unfair and false practices.⁷⁷ The U.S. adopted the U.S. AI Act (National AI Initiative Act) into law in 2021, which in turn established the National AI Initiative, which ensures 'an overarching framework to strengthen and coordinate AI research, development, demonstration, and education activities across all U.S. Departments and Agencies'⁷⁸.

⁷¹ Unknown Author(s) 'A Call to Service for AI Talent in the Federal Government' 29 January 2024 <https://www.whitehouse.gov/ostp/news-updates/2024/01/29/a-call-to-service-for-ai-talent-in-the-federal-government/> (accessed 26 May 2024).

⁷² Emily Bogin 'The Timeline of the EU AI Act (And a Look Ahead)' 28 May 2024 <https://www.jdsupra.com/legalnews/the-timeline-of-the-eu-ai-act-and-a-8652587/#:~:text=The%20EU%20AI%20Act%20takes,than%20limiting%20the%20technology%20itself> (accessed 30 May 2024).

⁷³ Alex Engler 'The EU and U.S. diverge on AI regulation: A transatlantic comparison and steps to alignment' 25 April 2023 <https://www.brookings.edu/articles/the-eu-and-us-diverge-on-ai-regulation-a-transatlantic-comparison-and-steps-to-alignment/> (accessed 25 May 2024).

⁷⁴ Engler (n 73 above).

⁷⁵ Martha Schrek *et al* 'US Artificial Intelligence Regulations: Watch List for 2023' 12 April 2023 https://www.goodwinlaw.com/en/insights/publications/2023/04/04_12-us-artificial-intelligence-regulations (accessed 11 May 2024).

⁷⁶ Engler (n 73 above).

⁷⁷ Engler (n 73 above).

⁷⁸ Heather Egan 'Artificial Intelligence Regulation Takes Shape' 18 November 2021 <https://www.orrick.com/en/insights/2021/11/US-Artificial-Intelligence-Regulation-Takes-Shape> (accessed 12 May 2024).

Despite multiple attempts from the U.S. government to supervise the utilisation of AI mechanisms, the legislative arm has been stirring the pot when it comes to regulating AI systems. In September 2023, the Supreme Court decided to offer their input with regard to the constitutionality of contentious legislation in Florida and Texas that can govern how social network companies such as X (Twitter) and Facebook can manage content published on their platforms.⁷⁹ These legislations were given the green light in 2021 as a response to the beliefs of legislators that certain companies were restricting their users (in particular those who hold conservative opinions) and as a counterargument, the enterprises contend that these legislations breach First Amendment liberties.⁸⁰

In a similar fashion to the U.S., South Africa does not have any legislation implemented that regulates AI specifically, and the general future of AI and its regulation is currently unclear in S.A.⁸¹ There is, however, some available legislation (for example the Protection of Personal Information Act of 2013) that does supervise activities executed by corporations utilising AI, by blocking the illegal processing of private information.⁸² Much like other technological advancements, AI systems create major risks that must be minimalised through regulations and legislation.⁸³ While S.A. may opt to rather rely on international legislation as the building blocks for developing its unique AI laws, it must still be adapted to address local issues.⁸⁴ There are some encouraging indications that S.A. intends to be a competitor in the international AI sector, despite there being a lack of solid AI regulation.⁸⁵ On the 5th of April 2024 at the AI Government Summit, the DCDT revealed S.A's AI 'Discussion Document'.⁸⁶ The aim of the

⁷⁹ Amy Howe 'Justices take major Florida and Texas social media cases' 29 September 2023 <https://www.scotusblog.com/2023/09/justices-take-major-florida-and-texas-social-media-cases/#:~:text=The%20Supreme%20Court%20on%20Friday,content%20posted%20on%20their%20sites.> (accessed 15 May 2024).

⁸⁰ Howe (n 79 above).

⁸¹ Kayla Casillo & Alex Powell 'South Africa faces many challenges in regulating the use of artificial intelligence' 23 April 2023 <https://www.dailymaverick.co.za/article/2023-04-23-south-africa-faces-many-challenges-in-regulating-the-use-of-artificial-intelligence/> (accessed 23 May 2024).

⁸² Ridwaan Boda *et al* 'The EU AI Act Passes: Should South Africa follow suit and regulate Artificial Intelligence?' 19 March 2024 <https://www.ensafrica.com/news/detail/8261/the-eu-ai-act-passes-should-south-africa-foll> (accessed 27 May 2024).

⁸³ Casillo & Powell (n 81 above).

⁸⁴ Casillo & Powell (n 81 above).

⁸⁵ Casillo & Powell (n 81 above).

⁸⁶ Preeta Bhagattjee & Savanna Stephens 'The AI National Policy: South Africa's initial step to establish an AI policy and regulatory framework' 11 April 2024 <https://www.polity.org.za/article/the-ai-national-policy-south-africas-initial-step-to-establish-an-ai-policy-and-regulatory-framework-2024-04-11> (accessed 26 May 2024).

Discussion Document is meant to promote discussions among the private and public sectors.⁸⁷ The DCDT has launched this document with the hopes of promoting AI modernisation, as well as developing a domestic AI framework, that will highlight the government's stance regarding the implementation of AI, government-driven AI activities and suggested regulatory guidelines.⁸⁸ These guidelines will also introduce principles that hope to oversee the progression and incorporation of AI in the country.⁸⁹ The DCDT has also implemented various AI hubs and the Artificial Intelligence Institute of South Africa in an attempt to encourage its stance on AI.⁹⁰

South Africa as a country faces many challenges and risks, and in the context of unregulated AI activities, these risks include foreign models and data, data restrictions, increasing inequality (as AI could worsen current socio-economic conditions) and an increase in privacy breaches and maleficence.⁹¹ For these reasons, I argue that S.A. must adopt the U.S. model to AI which is the risk-based approach. By adopting similar initiatives to the Biden Executive order and the risk-based approach, the above-mentioned risks can be minimalised, and the ethical use of AI promoted. Most of South Africa's unique risks are socio-technical, and there is an indication that the country is on the verge of policy and technology development.⁹² I recommend that S.A. adopt legislation similar to the California AI Accountability Act, whose primary purpose is to identify downsides such as fairness risks and develop specific guidelines to prevent harm from occurring to public citizens whilst simultaneously encouraging innovation.⁹³ S.A. may also benefit from an Act similar to the California AI Accountability Act, as it will guide the policy formation process of state entities and require that state agencies promptly notify consumers when they are using AI.⁹⁴

In the U.S., ADR is governed by a few key statutes namely the ADR Act of 1996 (which encouraged local agencies to implement policies regarding ADR utilisation originally),

⁸⁷ Bhagattjee & Stephens (n 86 above).

⁸⁸ Bhagattjee & Stephens (n 86 above).

⁸⁹ Bhagattjee & Stephens (n 86 above).

⁹⁰ Boda *et al* (n 82 above).

⁹¹ Emile Ormond 'Artificial intelligence in South Africa comes with special dilemmas – plus the usual risks' 27 January 2023 <https://theconversation.com/artificial-intelligence-in-south-africa-comes-with-special-dilemmas-plus-the-usual-risks-194277> (accessed 28 May 2024).

⁹² Ormond (n 91 above).

⁹³ Unknown Author(s) 'Sen. Dodd Introduces California AI Accountability Act' 3 January 2023 <https://sd03.senate.ca.gov/news/20240103-sen-dodd-introduces-california-ai-accountability-act> (accessed 29 May 2024).

⁹⁴ Unknown Author(s) (n 93 above).

the Contract Disputes Act and the ADR Act of 1998 (which called for federal courts to offer access of ADR mechanisms to litigants).⁹⁵

The Arbitration Act of 1965 regulates ADR in South Africa and South African law firms often act in ad hoc and institutional arbitrations (national and international) under rules set out by the AFSA, the ICC, the LCIA, the ICSID, CAA and UNCITRAL.⁹⁶ This highlights South Africa's prevalence in the international ADR community. There is however one shortcoming.

Regulations are still in their infancy stage, but despite this, most of the latest developments to address this legal gap are emerging from the U.S., not other countries such as S.A.⁹⁷ The Arbitration Act of SA must follow in the footsteps of the U.S. (in the sense of adopting new legislation) and try to better its legislative imperfections by adjustments to accommodate the recommendations of UNCITRAL, which amongst other things, includes the application area to include international conflicts.⁹⁸ The Labour Relations Act of 1995 provides guidelines for practices to settle labour conflicts through the Commission for Conciliation, Mediation and Arbitration through respective ADR mechanisms and with the support of Section 23 of the Constitution, which reaffirms that "everyone has the right to fair labour practices"⁹⁹ has reached a settlement rate of 70% and higher.¹⁰⁰ In terms of ADR regulation(s), the U.S. can draw inspiration from the S.A. standpoint on labour disputes and perhaps amend their constitution to include similar provisions to Section 23¹⁰¹, in order to promote fairer labour practices and in hindsight, better ADR practices.

⁹⁵ Unknown Author(s) 'Key ADR Statutes' [https://adr.gov/guidance/adrguide-home/04-statutes/#:~:text=The%20Administrative%20Dispute%20Resolution%20Act%20of%201990%20\(ADR%20Act\)%3A&text=101%2D552%2C%20104%20Stat.,by%20and%20against%20the%20government.](https://adr.gov/guidance/adrguide-home/04-statutes/#:~:text=The%20Administrative%20Dispute%20Resolution%20Act%20of%201990%20(ADR%20Act)%3A&text=101%2D552%2C%20104%20Stat.,by%20and%20against%20the%20government.) (accessed 30 May 2024).

⁹⁶ Unknown Author(s) 'Alternative Dispute Resolution: Arbitration & Mediation' <https://www.webberwentzel.com/Expertise/Services/Disputes-Alternative-Dispute-Resolution-&-Litigation/Pages/Alternative-Dispute-Resolution-Arbitration-&-Mediation.aspx> (accessed 29 May 2024).

⁹⁷ Y Chae 'U.S. AI Regulation Guide: Legislative Overview and Practical Considerations' (2020) 3 *The Journal of Robotics, Artificial Intelligence & Law* 17.

⁹⁸ Petrina Ampeire 'ADR in South Africa: A Brief Overview' 9 December 2017 <https://immediation.org/2017/12/09/adr-south-africa-brief-overview/> (accessed 30 May 2024).

⁹⁹ Section 25 of the Constitution of the Republic of South Africa, 1996.

¹⁰⁰ Unknown Author(s) 'Who we are' <https://www.ccma.org.za/about-us/> (accessed 30 May 2024); see also Unknown Author(s) 'THE CCMA COMMEMORATES ITS 25th ANNIVERSARY' 11 November 2021 <https://www.ccma.org.za/news/ccma-commemorates-its-25th-anniversary-media-advisory/> (accessed 30 May 2024).

¹⁰¹ Constitution of the Republic of South Africa, 1996.

In summary, even though both S.A. and the U.S. are making substantial efforts to better regulate AI, there is still a dire need for all-inclusive legislative frameworks to address the challenges presented by ADR. The risk-based approach that the U.S. has incorporated proposes important lessons on how to minimise risks whilst simultaneously encouraging innovation. By adopting an informed approach, both countries can take advantage of the advantages of AI, use these benefits to transform AI mechanisms and ‘make AI work for them’¹⁰² whilst also adhering to moral standards and ethical considerations.

4. Introduction to AI in ADR

Although difficult to determine, the origins of AI are linked to the 1950s, when Alan Turing, an English mathematician, invented a code-cracking machine named ‘The Bombe’.¹⁰³ The invention of ‘The Bombe’ was done to assist the British authorities in decoding the Enigma encryption (code) utilised by German armed forces during the Second World War.¹⁰⁴ AI has evolved from a simple code-cracking machine in the mid-19th century, to a state-of-the-art revolution that is estimated to power 95% of customer relations and eventually more than 120 billion dollars worth of revenue in 2025.¹⁰⁵

AI is the creation and theory of computer mechanisms that can perform tasks that traditionally require some element of humanity, such as making conclusive decisions and recognising speech and trends.¹⁰⁶ Even though there is no universally acknowledged description of AI, for the purpose of clarity, AI can be described “as a machine’s ability to perform cognitive functions usually associated with human

¹⁰² J Graham ‘Innovation vs Safety: A critical examination of regulatory approaches to artificial intelligence’ Doctor of Philosophy, Liverpool John Moores University, 2022 110.

¹⁰³ M Haenlein & A Kaplan ‘A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence’ (2019) 61 *California Management Review* 2, 3; see also Rockwell Anyoha ‘The History of Artificial Intelligence’ 28 August 2017

<https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/> (accessed 3 May 2024).

¹⁰⁴ Haenlein & Kaplan (n 103 above) 2, 3.

¹⁰⁵ Avijeet Biswal ‘18 Cutting-Edge Artificial Intelligence Applications in 2024’ 2 April 2024

<https://www.simplilearn.com/tutorials/artificial-intelligence-tutorial/artificial-intelligence-applications> (accessed 30 May 2024); see also Bergur Thormundsson ‘Artificial intelligence software market revenue worldwide 2018-2025’ 27 July 2022 <https://www.statista.com/statistics/607716/worldwide-artificial-intelligence-market-revenues/> (accessed 30 May 2024).

¹⁰⁶ Coursera Staff ‘What Is Artificial Intelligence? Definition, Uses, and Types’ 3 April 2024 <https://www.coursera.org/articles/what-is-artificial-intelligence> (accessed 6 May 2024).

minds.”¹⁰⁷ AI has progressed in such a noticeable way, that ever since it was established in the mid-19th century, it is now a term used to include (amongst others), machine learning and NLP (natural language processing).¹⁰⁸ AI has also been increasingly interlaced with the legal sector, and such implementation demonstrates how legal processes are conducted, from document and research reviews to streamlining transnational legal work.¹⁰⁹ ADR mechanisms have also implemented AI in many ways as a means to advance efficiency, transparency, accessibility and effectiveness in its practices. This will be discussed in greater detail below.

5. The use of AI in ADR practices

The 4IR, which consists of a mixture of different technologies, has bridged the gap between, amongst others, digital and physical spheres, and has encouraged the adoption of AI in ADR practices in many ways.¹¹⁰ The 4IR, as opposed to previous revolutions, is changing and evolving at a more rapid rate instead of a linear rate, incorporating transformative innovations such as genetic engineering, AI, quantum computation systems and the Internet of Things.¹¹¹ The rapid pace and impact of the developments arising from the 4IR cannot be understated, as these developments will lead to changes in power, knowledge and transitions in wealth.¹¹² Considering the growth of digital transactions and the development of the internet, the implementation of AI in ADR mechanisms has slowly become more significant. I will discuss some key areas where AI is making a notable impact on ADR below.

After the invention of the WWW (World Wide Web) in 1989, the first visual browsers and ISPs emerged within a few years.¹¹³ This led to ODR articles appearing in law

¹⁰⁷ McKinsey & Company ‘What is AI (artificial intelligence)?’ 3 April 2024

<https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-ai> (accessed 6 May 2024); see also P Wang ‘On Defining Artificial Intelligence’ (2019) 10 *Journal of Artificial General Intelligence* 1.

¹⁰⁸ Ross Gruetzemacher ‘The Power of Natural Language Processing’ 18 April 2022

<https://hbr.org/2022/04/the-power-of-natural-language-processing> (accessed 6 May 2024); see also Coursera Staff (n 106 above).

¹⁰⁹ Liz Pinnock ‘How AI is transforming the legal sector’ <https://www.rsm.global/southafrica/insights/legal-insights/how-ai-transforming-legal-sector> (accessed 7 May 2024).

¹¹⁰ Elli Heinsohn ‘The Fourth Industrial Revolution: Blurring the Lines Between Physical, Digital, and Biological Worlds’ 23 April 2024 <https://medium.com/@ellihns/the-fourth-industrial-revolution-blurring-the-lines-between-physical-digital-and-biological-4eefe79cded9#:~:text=The%20term%20E2%80%9CFourth%20Industrial%20Revolution,%2C%20digital%2C%20and%20biological%20spheres> (accessed 8 May 2024).

¹¹¹ Heinsohn (n 110 above).

¹¹² M Xu *et al* ‘The Fourth Industrial Revolution: Opportunities and Challenges’ (2018) 9 *International Journal of Financial Research* 90.

¹¹³ E Katch ‘ODR: A Look at History’ (2012) *The Hague: Eleven International* 22.

reviews for the first time and the NCAIR sponsoring the founding conference revolving around ODR.¹¹⁴ During this period, the internet was approximately 27 years of age, and as the internet started advancing, e-commerce was growing and transactions were increasingly being conducted online and as a result, a growing number of reports were emerging.¹¹⁵

ODR is regarded as a form of ADR that applies technology to help disputing parties in resolving a conflict, and ODR is seen as the alternative to real-life ADR, which applies to mediation, negotiation and arbitration, or a combination thereof.¹¹⁶ ODR is seen as the partnership between Information and Communication Technology and ADR, and this partnership relies on electronic networking systems to support online meetings between the conflicting parties in a way that is more effective than traditional conflict resolution methods.¹¹⁷ There are a multitude of ways in which ODR is provided, including: “video conference, e-mail, closed forum, phone conference, chatting, web-based, and automated negotiation systems.”¹¹⁸ As mentioned above, ODR relies on AI to enhance its online ADR mechanisms, however, the applicable literature prescribes that AI systems and technology are used in the legal field in two ways, namely in either a ‘support capacity, or a substantive one.’¹¹⁹ It is also worth mentioning that the majority of AI used in ADR is in the form of ODR. Some examples of AI use in ODR include supportive AI systems, intelligent user interaction platforms and case reasoning networks and systems.¹²⁰ Case reasoning networks and systems specifically take note of previous outcomes and then apply such knowledge to a present matter, therefore a conflict presented to an AI system can be ruled on in a way that weighs the validity and success of past case(s).¹²¹ Thanks to the significant AI-driven ODR progression that has transpired, several systems have materialised

¹¹⁴ Katch (n 113 above) 23; see also E Katsh ‘Dispute Resolution in Cyberspace’ (1996) 28 *Connecticut Law Review* 953; E.C Lide ‘ADR and Cyberspace: The Role of Alternative Dispute Resolution in Online Commerce, Intellectual Property and Defamation’ (1996) 12 *Ohio State Journal on Dispute Resolution* 193.

¹¹⁵ Katch (n 113 above) 23.

¹¹⁶ K Karnad & V Kanchan ‘Scope of Online Arbitration in India’ (2020) 15 *Supremo Amicus* 142.

¹¹⁷ Karnad & Kanchan (n 116 above) 142.

¹¹⁸ W Kim ‘Critical Evaluation of The Online Dispute Resolution for Cross-Border Consumer Transaction Under E-Commerce’ (2016) *SSRN Electronic Journal* 34; see also R Morek ‘Regulation of Online Dispute Resolution: Between Law and Technology’ (2005) 9 <https://www.scribd.com/document/145704079/Regulation-of-ODR-Rafal-Morek> (accessed 17 May 2024).

¹¹⁹ Alessa (n 11 above) 326.

¹²⁰ Alessa (n 11 above) 326 – 327.

¹²¹ Alessa (n 11 above) 329.

including *AssetDivider*, *GetAid*, *ALIS* and *Adjusted Winner*.¹²² Even though these systems rely on automatic processes and AI, they continue to demand a significant amount of human involvement as human experts provide a link between the disputing parties and the system given the complicated nature of the principles required for the systems to function.¹²³ Another ODR application using AI includes CADRE (Centre for Alternate Dispute Resolution Excellence), a platform that enables parties to solve conflicts online through email and video conversations.¹²⁴ AGAMI, a CODR (Centre for Online Dispute Resolution) is also an ODR system that uses AI to resolve conflicts electronically.¹²⁵

As mentioned above, many of the supporting systems currently applied in ADR are largely through ODR means.¹²⁶ These platforms are divided according to the purposes they serve and can be separated into, for example, “decision support systems or case reasoning systems.”¹²⁷ AI is also used in other ADR systems through digital assistants and AI chatbots, which can provide legal information and advice regarding their legal rights and responsibilities to the concerned parties, or help the parties write documentation.¹²⁸ AI is also being used to address everyday transactional affairs, for example, The AAA provides the Modria Resolution Center for the resolution of certain disputes, eBay possesses a conflict resolution center and provides advice for the proper use of it, and ODR is easily available at platforms like Modria, who provides a framework for managing a conflict with the option of a ‘human mediator and tools for evaluating the merits of claims’.¹²⁹

¹²² Alessa (n 11 above) 327; see also Carneiro (n 11 above) 14 – 16.

¹²³ Alessa (n 11 above) 327, see also M Araszkievicz et al ‘The Role of New Information Technologies in Alternative Dispute Resolution of Divorce Disputes’ (2014) 1 *European Dispute Resolution Journal* 549, 552.

¹²⁴ N.K. Wanjiku ‘Dawn of Artificial Intelligence in Alternative Dispute Resolution; Expanding Access to Justice Through Technology’ (2023) 10 *University of Nairobi Law Journal* 27, 28; see also M Shawani, ‘Alternate Dispute Resolution and Artificial Intelligence; Boom or Bane?’ (2020) 2 *LexForti Legal Journal* 12.

¹²⁵ Wanjiku (n 124 above) 27, 28.

¹²⁶ J Cihanová ‘The Role of Artificial Intelligence in Alternative Dispute Resolution’ 42 *Acta Facultatis Iuridicae Universitatis Comenianae* 112; see also Carneiro (n 11 above) 211 - 240.

¹²⁷ Cihanová (n 126 above); see also A Hibah ‘The role of Artificial Intelligence in Online Dispute Resolution: A brief and critical overview’ (2022) 31 *Information & Communications Technology Law* 320.

¹²⁸ Cihanová (n 126 above).

¹²⁹ P Marrow *et al* ‘Artificial Intelligence and Arbitration: The Computer as an Arbitrator—Are We There Yet?’ (2020) 74 *American Arbitration Association* 39.

CHAPTER 3:

Analysing the challenges: AI vs ADR and the legal regulation and usage of AI on the African continent.

1. Introduction

The introduction and incorporation of AI in ADR mechanisms have resulted in an important shift regarding how conflicts are resolved and managed.¹³⁰ AI chatbots, as an example of AI-driven ODR systems, have transformed the way that disputes are solved, by providing a more customer-friendly and accessible platform for people to access.¹³¹ ADR without AI remains burdened by difficulties such as bias issues, despite there being recent developments to solve these types of problems.¹³² The term ‘Implicit bias’¹³³ in ADR mechanisms is an occurrence that continues to exist and must be overcome, especially in the context of promoting impartial and fair solutions to achieve justice.¹³⁴

Implicit bias refers to the perception embraced by individuals that pertain to stereotypical assumptions that are generally brought forward by the simple presence of the relevant ‘target group’.¹³⁵ These assumptions and connections indicate underlying bias, most of which individuals are unaware of.¹³⁶ It is worth mentioning that, as persons are mostly unaware of their own subconscious biases, they make no genuine effort to partake in any thinking processes to identify and challenge their biases.¹³⁷

¹³⁰ Shaheen (n 4 above).

¹³¹ Shaheen (n 4 above).

¹³² Sterling Miller ‘The problems and benefits of using alternative dispute resolution’ 29 April 2022 <https://legal.thomsonreuters.com/en/insights/articles/problems-and-benefits-using-alternative-dispute-resolution> (accessed 25 June 2025).

¹³³ Mike Carabott ‘Addressing implicit bias in Alternative Dispute Resolution’ 21 April 2023 <https://www.thinkbrief.com/addressing-implicit-bias-in-alternative-dispute-resolution/> (accessed 2 September 2024).

¹³⁴ Carabott (n 133 above).

¹³⁵ G.J. Bachar & D.R. Hensler ‘Does Alternative Dispute Resolution Facilitate Prejudice and Bias? We Still Don’t Know’ (2017) 70 *SMU Law Review* 820, 821; see also J Dovidio, K Kawakami & K Beach ‘Implicit and Explicit Attitudes: Examination of the Relationship Between Measures of Intergroup Bias’, in Rupert Brown & Sam Gaertner eds. *Blackwell Handbook of Social Psychology: Intergroup Processes* (2008) 175.

¹³⁶ Bachar & Hensler (n 135 above) 821.

¹³⁷ Bachar & Hensler (n 135 above) 821, see also M Hewstone, M Rubin & H Willis ‘Intergroup Bias’ (2002) 53 *Annual Review of Psychology* 575, 577.

Chapter 3 will critically discuss and examine the threats and problems pertaining to AI usage in ADR, including the problems in ADR mechanisms not using AI. By identifying and comparing challenges such as biased outcomes and privacy breaches¹³⁸, I aim to subsequently establish in Chapter 4 whether AI can address the complexities of ADR mechanisms. Chapter 3 will also discuss the socio-economic factors with regard to the integration of AI in ADR mechanisms throughout Africa.

2. Challenges and risks of implementing AI in ADR practices.

One of the most notable challenges that come with using AI-related mechanisms in the law and ADR is systemic bias and discrimination.¹³⁹ Regulated learning algorithms and AI systems, which are mostly trained on historical data, are only capable of viewing the world as history repeats itself, which inherently presents significant ethical implications.¹⁴⁰ As an example, if students and their accomplishments are evaluated by implementing these AI mechanisms, the evaluation is guided by criteria that demonstrate cultural prejudices and traditionally significant standards of achievement.¹⁴¹ Should the historical data mentioned above reflect cultural biases, regulated AI learning algorithms will uphold and even escalate these biases which will be reflected in its decisions, and as a result, these biases will be unavoidable.¹⁴² This is very concerning, as ADR practices rely on neutrality, impartiality, and fairness to achieve fair and successful outcomes, as well as to develop high moral standards.¹⁴³ The risk lies in the possibility that prejudiced AI mechanisms could compromise the transparency of ADR decisions and lead to unfair resolutions.¹⁴⁴ Scholars note that:

¹³⁸ F Bell *et al* 'AI Decision-Making and the Courts A guide for Judges, Tribunal Members and Court Administrators' (2022) *The Australasian Institute of Judicial Administration Incorporated* 34, 35; see also Unknown Author(s) 'AI and Privacy: The privacy concerns surrounding AI, its potential impact on personal data' 25 April 2023 <https://economictimes.indiatimes.com/news/how-to/ai-and-privacy-the-privacy-concerns-surrounding-ai-its-potential-impact-on-personal-data/articleshow/99738234.cms?from=mdr> (accessed 2 September 2024).

¹³⁹ Bell (n 138 above) 34, 35.

¹⁴⁰ I Tuomi 'The Impact of Artificial Intelligence on Learning, Teaching, and Education' (2018) *JRC Science for Policy Report* 4.

¹⁴¹ Tuomi (n 140 above) 4.

¹⁴² Tuomi (n 140 above) 4, see also Z Chen 'Ethics and discrimination in artificial intelligence enabled recruitment practices' (2023) 10 *Humanities and Social Sciences Communications* 6; see also F Raso *et al* 'Artificial Intelligence & Human Rights: Opportunities & Risks' (2018) 6 *Berkman Klein Center for Internet and Society at Harvard University* 7; see also SG Mayson 'Bias in, bias out' (2018) 128 *Yale Law Journal* 2218 – 2300.

¹⁴³ C Menkel-Meadow 'Ethics Issues in Arbitration and Related Dispute Resolution Processes: What's Happening and What's Not' (2002) 56 *Miami Law Review* 960.

¹⁴⁴ Daniel Bron 'The Role of AI in Dispute Resolution: Transforming Mediation and Arbitration Practices' LinkedIn Article 8 June 2023 <https://www.linkedin.com/pulse/role-ai-dispute-resolution-transforming-mediation-arbitration> (accessed 23 June 2024); see also Shaheen (n 4 above).

“In all, debiasing is proving to be among the most daunting obstacles, and certainly the most socially fraught, to date.”¹⁴⁵ This gives some reason as to why restructuring biased historical data proves to be a daunting task, as it requires a competence to master data-science systems and better understand relevant social factors.¹⁴⁶

AI bias continues to exist, as illustrated by Optum (a medical AI system), which has been faulted for assigning fewer resources to African American patients, as opposed to allocating greater resources to white communities.¹⁴⁷ To address this problem (and those similar), the focus must be placed on equal data representation within the datasets adopted for modelling methods.¹⁴⁸ Simple techniques, such as ‘class imbalance measures’¹⁴⁹ or analysis using systems such as the ‘SIMPSON’S PARADOX’ can be used to identify bias and mitigate it.¹⁵⁰ The Simpson’s Paradox is a statistical occurrence where a connection between two or more variables among the populace emerges, reverses or disappears when the populace is distributed into subgroups.¹⁵¹ Class imbalance refers to a common problem that emerges when the distribution of samples within the data models itself is biased.¹⁵² By adopting either one of these techniques or methods, a trend can be set for approaching bias in AI by focusing on equal statistical and data representation in the data collections utilised in the modelling frameworks.¹⁵³ As an alternative, AI-driven ADR mechanisms can develop and implement practices such as transparent algorithm development and as a result of implementing such practices, transparency can be improved.¹⁵⁴ There is

¹⁴⁵ IBM Data & AI Team (n 7 above); see also Michael Chui, James Manyika, Mehdi Miremadi ‘What AI can and can’t do (yet) for your business’ 11 January 2018 <https://www.mckinsey.com/capabilities/quantumblack/our-insights/what-ai-can-and-cant-do-yet-for-your-business> (accessed 24 June 2024).

¹⁴⁶ IBM Data & AI Team (n 7 above); see also Chui *et al* (n 145 above).

¹⁴⁷ Z Obermeyer *et al* ‘Dissecting racial bias in an algorithm that guides health decisions for 70 million people’ (2019) *Proceedings of the Conference on Fairness, Accountability, and Transparency* 89; see also E Albaroudi *et al* ‘A Comprehensive Review of AI Techniques for Addressing Algorithmic Bias in Job Hiring’ (2024) 5 *University of Salford School of Science, Engineering and Environment* 383 – 404.

¹⁴⁸ R Schwartz *et al* ‘Towards a Standard for Identifying and Managing Bias in Artificial Intelligence’ (2022) 1270 *National Institute of Standards and Technology Special Publication* 17.

¹⁴⁹ Schwartz (n 148 above) 17.

¹⁵⁰ Schwartz (n 148 above) 17; see also EH Simpson ‘The interpretation of interaction in contingency tables’ (1951) 13 *Journal of the Royal Statistical Society* 238 – 241.

¹⁵¹ Unknown Author(s) ‘Simpson’s Paradox’ 24 March 2021 <https://plato.stanford.edu/entries/paradox-simpson/> (accessed 5 September 2024).

¹⁵² Barak Or ‘Solving the Class Imbalance Problem’ 4 January 2023 <https://medium.com/metaor-artificial-intelligence/solving-the-class-imbalance-problem-58cb926b5a0f> (accessed 5 September 2024).

¹⁵³ Schwartz (n 148 above) 17.

¹⁵⁴ G Santosh ‘Building Inclusive AI: Addressing Bias and Promoting Fairness’ LinkedIn Article 23 February 2024 <https://www.linkedin.com/pulse/building-inclusive-ai-addressing-bias-promoting-fairness-santosh-g->

also a need to continuously scan for systemic bias that may / may not be implemented in AI tools.¹⁵⁵

AI systems are not particularly vulnerable to personal biases and emotions as human judges and arbitrators would be, which can potentially provide for more fair decisions.¹⁵⁶ This is a constant challenge in ADR without AI, as it can be somewhat guaranteed that mediators and arbitrators will be biased in some shape or form.¹⁵⁷ The effect that biased decisions can have on ADR mechanisms is detrimental, as the ADR relies on transparency and fairness to achieve favourable outcomes. Biased decisions can also cause a lack of trust in ADR mechanisms.¹⁵⁸

Privacy and confidentiality breaches are other concerns when it comes to the integration of AI.¹⁵⁹ AI calls for large amounts of personal information, and with the year 2023 reporting more than 343 million targets of cybercrime, the risk of privacy and confidentiality breaches is more serious than ever.¹⁶⁰ The challenge is that threats to privacy in AI-driven ADR mechanisms are making it increasingly difficult to encourage parties to a dispute to fully participate, as they might be cautious to share personal information.¹⁶¹ By refusing to participate out of fear, it can be argued that access to justice is denied. To reduce this risk, it is recommended that AI enable and implement 'end-to-end encryption'¹⁶² and protect communication lines.¹⁶³

[m4s4c#:~:text=Addressing%20AI%20bias%20requires%20a,bias%20in%20deployed%20AI%20systems.](#)
(accessed 25 June 2025).

¹⁵⁵ Santosh (n 154 above).

¹⁵⁶ Syan Upile 'The use of AI can disproportionately negatively affect marginalised groups in our society. Is there any benefit to using AI in our legal system?' 18 October 2023

<https://www.doughtystreet.co.uk/sites/default/files/media/document/Syan%20Upile%20Essay.pdf> (accessed 26 June 2024).

¹⁵⁷ Miller (n 132 above).

¹⁵⁸ A Zafar 'Balancing the scale: navigating ethical and practical challenges of artificial intelligence (AI) integration in legal practices' (2024) 4 *Discover Artificial Intelligence* 7; see also G Andrada *et al* 'Varieties of transparency: exploring agency within AI systems' (2023) 38 *AI and Society* 1321 – 1331.

¹⁵⁹ Unknown Author(s) (n 138 above).

¹⁶⁰ Prabhjot Singh & Mansi Choudhary 'Alternative Dispute Resolution in the age of AI' 26 April 2023

<https://inbaviewpoint.org/alternative-dispute-resolution-in-the-age-of-ai/> (accessed 25 June 2024); see also Brenna Swanston & Maria St. John 'Cybersecurity Stats: Facts And Figures You Should Know' 28 February 2024 <https://www.forbes.com/advisor/education/it-and-tech/cybersecurity-statistics/> (accessed 25 June 2024).

¹⁶¹ Singh & Choudhary (n 160 above).

¹⁶² Prashanti Upadhyay 'Artificial Intelligence in Alternative Dispute Resolution: Transforming Conflict Resolution Landscapes' 4 January 2024 <https://legalegitarian.com/artificial-intelligence-in-a-d-r/> (accessed 26 June 2024).

¹⁶³ Upadhyay (n 162 above).

When it comes to ADR practices not using AI, confidentiality is a widely referenced advantage.¹⁶⁴ Confidentiality agreements are often included in ADR agreements that further protect the privacy of the parties to a dispute.¹⁶⁵ The best move forward would perhaps be to implement AI in ADR, but to ensure sufficient privacy and confidentiality, multiple security measures must be incorporated to ensure the integrity of the AI frameworks.¹⁶⁶ In this regard, the benefits outweigh the disadvantages, but ADR without AI would benefit from AI-powered systems that will ensure privacy and confidentiality.

3. AI in Africa

The implementation of AI in ADR mechanisms in Africa is affected by a range of socio-economic factors. Understanding these factors and considerations is critical for evaluating the impact and possibility of AI-driven ADR for improving access to justice and enhancing ADR effectiveness on the continent.

The boom of technology in Africa is often associated with fintech, however, the biggest acquisition of tech on the African continent in recent years was AI-based. AI-driven technology is booming throughout Africa, with experts estimating that AI technology could provide approximately \$1.2 billion to Africa's GDP by the year 3030.¹⁶⁷ To encourage the progression of AI sectors across the African continent, international and local research centres have been implemented to focus on AI research, with S.A. leading Africa in AI implementation using a solid ecosystem.¹⁶⁸ The primary African instrument is called the AI for Africa Blueprint, established during 2021, connecting SmartAfrica and the AU, and can be described as an AI African strategy that

¹⁶⁴ Unknown Author(s) 'Confidentiality in Alternative Dispute Resolution Processes' 17 April 2014 Administrative Review Tribunal <https://www.aat.gov.au/AAT/media/AAT/Files/Directions%20and%20guides/ConfidentialityInADRProcesses.pdf> (accessed 25 June 2024).

¹⁶⁵ Upadhary (n 162 above).

¹⁶⁶ W Villegas-Ch & J Garcia-Ortiz 'Toward a Comprehensive Framework for Ensuring Security and Privacy in Artificial Intelligence' (2023) 12 *Electronics* 7; see also Y Wang *et al* 'A Survey on Metaverse: Fundamentals, Security, and Privacy' (2023) 25 *IEEE Communications Surveys & Tutorials* 319 – 352.

¹⁶⁷ Abdessalam Jaldi 'Artificial Intelligence Revolution in Africa: Economic Opportunities and Legal Challenges' *Policy Center for the New South* 6 available at: https://www.policycenter.ma/sites/default/files/2023-07/PP_13-23%20%28Jaldi%20%29.pdf (accessed 25 September 2024); see also Faustine Ngila 'Africa is joining the global AI revolution' 23 June 2022 <https://qz.com/africa/2180864/africa-does-not-want-to-be-left-behind-in-the-ai-revolution> (accessed 26 September 2024).

¹⁶⁸ Jaldi (n 167 above) 6; see also Aleksandra Gadzala Tirziu 'Coming to life: Artificial intelligence in Africa' 14 November 2018 <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/coming-to-life-artificial-intelligence-in-africa/> (accessed 26 September 2024).

showcases the potentialities and challenges relevant to AI in African territories.¹⁶⁹ This Blueprint is a breakthrough made by the AU heading for rights-driven AI independence, additionally, the ACHPR has implemented Resolution 473, urging local governments to strive to establish ethical and legal guidelines to regulate AI.¹⁷⁰

Currently, in 2024, more than 420 million people in Africa are living in severe poverty.¹⁷¹ Only 36% of African inhabitants in 2022 had access to broadband internet, and this is despite the fact that statistics are steadily improving.¹⁷² Africa also has a reputation for having a wide gender gap in digital access, with the biggest inequality between women and men utilising internet sources being 24% against 35%.¹⁷³ Despite these negative statistics, there has been an increasing number of developments and for AI to take a stance in dispute resolution it must be implemented into ADR systems to reduce and avoid any uncertainty.¹⁷⁴ As litigation is more expensive than ADR mechanisms, it can be argued that ADR will improve access to justice and given the poverty statistic above, more people can access dispute proceedings in ways that are culturally appropriate.¹⁷⁵ This doesn't excuse the fact that ADR can also be expensive in its own right, but at least it presents a more favourable alternative to litigation.¹⁷⁶ When combined with AI, access to justice can be even more enhanced as AI-driven ADR can reach populations that can't access ADR platforms.¹⁷⁷

¹⁶⁹ Jaldi (n 167 above) 10; see also S Sedola *et al* 'Artificial Intelligence for Africa' (2021) *SmartAfrica* 14 First Edition available at https://www.bmz-digital.global/wp-content/uploads/2022/08/70029-eng_ai-for-africa-blueprint.pdf (accessed 27 September 2024).

¹⁷⁰ Jaldi (n 167 above) 10; see also A Rogerson *et al* 'Government AI Readiness Index 2022' (2022) *Oxford Insight* 35 available at: https://www.unido.org/sites/default/files/files/2023-01/Government_AI_Readiness_2022_FV.pdf.

¹⁷¹ Saifaddin Galal 'Number of people living in extreme poverty in Africa 2016-2030' 22 March 2024 <https://www.statista.com/statistics/1228533/number-of-people-living-below-the-extreme-poverty-line-in-africa/> (accessed 26 June 2024).

¹⁷² Unknown Author(s) 'From Connectivity to Services: Digital Transformation in Africa' 26 June 2023 <https://www.worldbank.org/en/results/2023/06/26/from-connectivity-to-services-digital-transformation-in-africa> (accessed 27 June 2024).

¹⁷³ Unknown Author(s) (n 172 above).

¹⁷⁴ Sadiff Habib 'The use of artificial intelligence in arbitration in Africa – inevitable or unachievable?' <https://www.ibanet.org/article/e62b06f6-7772-458a-a6e7-1474db7136b5> (accessed 27 June 2024).

¹⁷⁵ Scott Brown & Christine Cervenak & David Fairman 'Alternative Dispute Resolution Practitioners Guide' *Conflict Management Group* 1 available at: <https://2017-2020.usaid.gov/sites/default/files/documents/1868/200sbe.pdf> (accessed 2 September 2024).

¹⁷⁶ Unknown Author(s) 'Why Use Alternative Dispute Resolution (ADR) Instead of Litigation' <https://sfhgroup.com/why-use-alternative-dispute-resolution-adr-instead-of-litigation/> (accessed 28 June 2024).

¹⁷⁷ Rahul Kumar Gaur 'Tech-Driven Justice: Unravelling The Dynamics Of Online Dispute Resolution' 9 June 2024 <https://www.livelaw.in/lawschool/articles/future-of-justice-technology-alternative-dispute-resolution-260027> (accessed 28 June 2024).

In addition to the above, African inhabitants have lost trust in their nations' legislative processes to deliver prompt relief to their injustices, as in Liberia, a survey conducted in 2009 concluded that approximately 3% of civil and criminal conflicts were brought before official courts and 40% pursued relief using informal means.¹⁷⁸ A staggering 55% of individuals approached no official forum in any way.¹⁷⁹ These statistics, coupled with 'backlogged court dockets'¹⁸⁰ are quite common, resulting in the idea that true justice will not be achieved through legal channels, and is likely a cause for political volatility and intercultural violence.¹⁸¹ Africa takes second place when it comes to the number of armed clashes locally, with over 35 domestic armed clashes occurring in countries such as Mali, Mozambique, and Sudan.¹⁸² It's worth noting that in situations where courts are approached, whilst the relevant legal problem may be addressed, they may overlook the root cause of certain problems, as they do not focus on mitigation or conflict solutions.¹⁸³ Scholars assert that the solution to these challenges would be to implement ADR, as ADR can positively contribute to incorporating efficient conflict settlement frameworks and unite formal legislative systems and traditional forms of African legal practices.¹⁸⁴ It would be wise to again consider incorporating AI in ADR practices in Africa, as the implementation of AI would ensure faster dispute resolution, which will then reduce court case backlogs.¹⁸⁵ This will be better discussed in Chapter 4.

It is estimated that approximately 60% of people in the Sub-Saharan region of Africa live in a rural setting and have very limited access to necessary amenities.¹⁸⁶ On top of this, Africa is the home to roughly 1000 – 2000 languages, with the diversity of

¹⁷⁸ Ernest Uwazie 'Alternative Dispute Resolution in Africa: Preventing Conflict and Enhancing Stability' (2011) 16 *Africa Security Brief* <https://africacenter.org/publication/alternative-dispute-resolution-in-africa-preventing-conflict-and-enhancing-stability/> (accessed 3 October 2024).

¹⁷⁹ Uwazie (n 178 above).

¹⁸⁰ Uwazie (n 178 above).

¹⁸¹ Uwazie (n 178 above).

¹⁸² Unknown Author(s) 'Africa: More than 35 Armed Conflicts' <https://geneva-academy.ch/galleries/today-s-armed-conflicts> (accessed 29 September 2024); see also X George 'Association of Secretaries General Of Parliaments Communication' (2023) 16, 17 <https://asgp.co/wp-content/uploads/2023/07/South-Africa-Comm-EN.pdf> (accessed 5 October 2024).

¹⁸³ Uwazie (n 178 above).

¹⁸⁴ Uwazie (n 178 above).

¹⁸⁵ Wanjiku (n 124 above) 33.

¹⁸⁶ I Ogunkola *et al* 'Rural communities in Africa should not be forgotten in responses to COVID-19' (2020) 35 *Wiley Online Library* 1302 – 1305; see also Unknown Author(s) 'Rural Population – Sub-Saharan Africa' <https://data.worldbank.org/indicator/SP.RUR.TOTL?locations=ZG> (accessed 27 July 2024).

Africa's spoken languages being illustrated by its populations.¹⁸⁷ For the past 40 or so years, ADR mechanisms, specifically arbitration and mediation, were developed as vessels to ensure fair legal access for independent litigants and to advance efficiency in swamped court processes.¹⁸⁸ Despite these advancements, policymakers and scholars are increasingly concerned with the issue of whether future litigants inclusive of all economic settings have access to legal frameworks.¹⁸⁹ A reaction to this fear has been the advancements and promotion of ADR.¹⁹⁰ As the pieces fell into place, it became evident that ADR did not live up to its initial promises (which were empowerment and autonomy), giving little attention to the worth of consent.¹⁹¹ Party independence has, over the past few years, weakened in arbitration and mediation, and it remains unclear whether ADR has contributed to better efficiencies for courts.¹⁹² I argue that the root cause of this is that ADR was a faulty movement to begin with, even though it carries loads of potential. High-cost dispute resolution coupled with accessibility issues and possible biased findings, cannot likely solve disputes that also present a language barrier(s), as mentioned above. Should the language barrier concern not be addressed, the gap in autonomy and empowerment will increase, especially in a continent where women's basic rights are at their peak.¹⁹³

A possible solution to the language barrier concern as mentioned above can be the implementation of AI in ADR mechanisms, as the technology industry has created remarkable opportunities for development and growth in bilingual communication.¹⁹⁴

¹⁸⁷ Unknown Author(s) 'Introduction to African Languages' <https://alp.fas.harvard.edu/introduction-african-languages> (accessed 27 July 2024).

¹⁸⁸ J Nolan-Haley 'Does ADR's "Access to Justice" Come at the Expense of Meaningful Consent?' (2018) 33 *Ohio St. J. Dispute Resolution* 1; see also S Goldberg *et al* *Dispute Resolution: Negotiation, Mediation, Arbitration, and Other Processes* (2012) 4 – 7; see also L Spain 'Alternative Dispute Resolution for the Poor: Is it an Alternative' (1994) 70 *Notre Dame Law Review* 269.

¹⁸⁹ Nolan-Haley (n 188 above) 1; see also J Steinberg 'Demand Side Reform in the Poor People's Court' (2015) 47 *Connecticut Law Review* 748-49.

¹⁹⁰ Nolan-Haley (n 188 above) 1.

¹⁹¹ Nolan-Haley (n 188 above) 2, 3; see also B Bush 'Efficiency and Protection, or Empowerment and Recognition: The Mediator's Role and Ethical Standards' (1989) 41 *Florida Law Review* 253.

¹⁹² Nolan-Haley (n 185 above) 3; see also D Shestowsky 'Disputants' Preferences for Court-Connected Dispute Resolution Procedures: Why We Should Care and Why We Know So Little' (2008) 23 *Ohio State Journal on Dispute Resolution* 549 - 562.

¹⁹³ Coumba Kane 'In Africa, the struggle for women's rights is at crisis point' 20 November 2020 https://www.lemonde.fr/en/le-monde-africa/article/2022/11/20/in-africa-the-struggle-for-women-s-rights-is-at-crisis-point_6004943_124.html (accessed 29 July 2024).

¹⁹⁴ Unknown Author(s) 'AI's Role in Multilingual Communication: Breaking Language Barriers' <https://www.ironhack.com/gb/blog/ai-s-role-in-multilingual-communication-breaking-language-barriers> (accessed 29 July 2024).

AI will also be able to provide immediate translation assistance to the parties to a conflict, especially during proceedings where the individuals hail from diverse jurisdictions and converse in various languages.¹⁹⁵

When considering the lack of access to technology, as well as the power imbalances that take effect when accessing the ADR mechanisms discussed above, AI can positively contribute to ADR practices in Africa by achieving more fair outcomes and ensuring more accessible dispute resolution. This will, however, not be feasible until poverty rates drastically improve, and African inhabitants get better access to broadband internet. AI does come with its fair share of disadvantages, and unless AI improves on its faults, it will not be able to contribute more positively to ADR processes. It can be argued that although AI paves the way for fairer and more efficient outcomes, there remains a remaining concern that advancements in AI technology can increase inequality within the borders of countries, as well as between countries.¹⁹⁶ This is illustrated by studies conducted that show that the use and implementation of AI reduces the right to education, data and privacy securement, and the root cause for this is that AI machines, during their creation, inherit bias from their human creators, either consciously or subconsciously.¹⁹⁷ Possible remedies will be discussed further below.

CHAPTER 4:

Possible remedies for the current issues in AI & ADR and conclusion

1. Introduction

In the beginning stage of this study, the research questions were asked to better understand AI and ADR mechanisms using AI and to establish whether the challenges and risks presented by AI and ADR can be promptly addressed.¹⁹⁸ Chapter 1 unveils the research problem, objectives and questions of the study, as it suggests in Chapter 2 that ADR has historically always been a more cost-effective and efficient option to

¹⁹⁵ Wanjiku (n 124 above) 26.

¹⁹⁶ R Vinuesa *et al* 'The role of artificial intelligence in achieving the Sustainable Development Goals' (2020) 11 *Nature Communications* 6.

¹⁹⁷ Jaldi (n 167 above) 18.

¹⁹⁸ O Olanipekun 'An Analysis of the Constitutional Foundations on the Devolution of State Authority in Africa: A Comparative Study' LLM Dissertation, University of Pretoria, 2024 128.

litigation, but the implementation of AI introduces both challenges and opportunities.¹⁹⁹ Chapter 3 critically evaluated the shortcomings and risks associated with implementing AI in ADR practices, with the chapter discussing systemic bias, discrimination and socio-economic challenges in Africa as its core issues.²⁰⁰ Lastly, Chapter 4, summarises the findings introduced in prior chapters, addresses the four research questions and rounds off with recommendations and a conclusion.²⁰¹

2. Systemic Bias

As mentioned in Chapter 3, one of the most dominating challenges of implementing AI is systemic bias and discrimination. As these systems are trained on historical data, there remains a risk that the historical data might be biased and worsen existing biases, which would then lead to unfair outcomes. Regular ADR systems might also cultivate ethnic or racial bias, and unfortunately, AI is not the right option to address these issues as AI also inherently can be programmed to be biased due to the historical data it is trained on. Rather, it can be addressed if people conform to different cultures, backgrounds, races and sexual preferences.²⁰² I argue that the lack of legal frameworks (as discussed in Chapter 2) is a contributing factor to biased AI, as there are no frameworks or practices to navigate the ethical implementation and development of AI systems.²⁰³ An example of a legal framework that can be adopted by countries such as South Africa is the AI Act implemented in Europe. This Act is a revolutionary legislative framework whose aim is to ensure dependable AI across Europe and even further by affirming that AI processes respect safety, moral principles and essential rights.²⁰⁴ The AI Act guarantees that citizens can believe in everything that AI provides and the Act takes on a risk-based approach, which is perfect for applying various rules to AI by the level of risk they present.²⁰⁵ In a country so diverse as South Africa, there is bound to be some sort of risk of conflicting interests or bias, and by implementing legislation similar to the AI Act, these risks can be mitigated. By combining effective legislation with

¹⁹⁹ Olanipekun (n 198 above) 128.

²⁰⁰ Olanipekun (n 198 above) 128.

²⁰¹ Olanipekun (n 198 above) 128.

²⁰² Moshe Jacobius, Denise Langford Morris & Lawrence Mooney 'Combating Implicit Bias in Alternative Dispute Resolution' 4 August 2022 <https://www.law360.com/articles/1517993/combating-implicit-bias-in-alternative-dispute-resolution> (accessed 2 September 2024).

²⁰³ IBM Data & AI Team (n 7 above).

²⁰⁴ Unknown Author(s) 'AI Act' <https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai> (accessed 30 July 2024).

²⁰⁵ Matt Kosinski & Mark Scapicchio 'What is the Artificial Intelligence Act of the European Union (EU AI Act)?' 20 June 2024 <https://www.ibm.com/topics/eu-ai-act> (accessed 31 July 2024).

new data for the AI systems to be trained on that is inclusive and sensitive to historical occurrences (such as Apartheid), systemic bias and discrimination can be promptly addressed.

3. Privacy concerns & socio-economic challenges in Africa

Confidentiality plays a crucial role in dispute resolution by guaranteeing the integrity of the processes and allowing the parties to a dispute-free reign to participate by protecting communications from disclosure to unwelcome external parties.²⁰⁶ It is vital for parties to a dispute to feel safe and secure to share confidential information to achieve a fair outcome. There are many consequences to a confidentiality or privacy breach in ADR, some of which include the integrity of the processes being compromised or perhaps biased outcomes. In this case, AI can address both these concerns, as well as worse. AI can assist with streamlining ADR processes by automating the data managing workflow, making it more productive, faster and accurate.²⁰⁷ Additionally, AI-based learning and algorithms are capable of handling big amounts of data, ensuring that the ADR process runs smoother, but the AI data capabilities also present the risk of privacy or confidentiality breaches.²⁰⁸ Online systems are vulnerable to hacking; however, the biggest challenge lies in the risk that AI itself is being employed by hackers for evil purposes.²⁰⁹ Hackers use AI systems to digitise attacks and employ deepfake AI to generate fake audio and videos to allow for identity spoofing, resulting in the manipulation of public views or identity cloning.²¹⁰ Another concern is that AI is capable of adapting its actions to evade security protocols, bypassing detection frameworks and extracting sensitive data from jeopardised systems.²¹¹ These risks may be addressed if there is vigorous data protection implementation to prevent hacking, and regular AI auditing to guarantee fairness, prevent discrimination, and ensure legal compliance.²¹²

²⁰⁶ J Lee & C Giesler 'Confidentiality in Mediation' (1998) 3 *Harvard Negotiation Law Review* 290.

²⁰⁷ Unknown Author(s) 'How AI Data Processing Is Redefining Large-Scale Industries' 14 December 2023 <https://www.energy-robotics.com/post/how-ai-data-processing-is-redefining-large-scale-industries> (accessed 1 August 2024).

²⁰⁸ NN Thao Vy 'AI Implementation In ODR: A Game-Changer or A Troublemaker of Data Protection' (2023) 8 *Vietnamese Journal of Legal Sciences* 1 – 24; see also Bron (n 144 above).

²⁰⁹ Unknown Author(s) 'How Hackers and Scammers Use AI (Artificial Intelligence)' <https://cyberseniors.org/uncategorized/how-hackers-and-scammers-use-ai-artificial-intelligence/> (accessed 1 August 2024).

²¹⁰ Unknown Author(s) (n 209 above).

²¹¹ Unknown Author(s) (n 209 above).

²¹² Rebecca Kappel 'AI Auditing: Ensuring Ethical and Efficient AI Systems' 4 July 2024 <https://www.centraleyes.com/ai-auditing/> (accessed 1 August 2024); see also Anthony Chamber 'The

With regard to the socio-economic challenges in Africa mentioned in Chapter 3, AI might be the most fitting solution to tackle these challenges. Nelson Mandela stated: “If you talk to a man in his language he understands, that goes to his head. If you talk to him in his language, that goes to his heart.”²¹³ AI can increase the accessibility of ADR mechanisms by conquering language barriers, as AI utilises neural systems to better translation precision and provide immediate translation during communication for parties who speak different languages. Gadgets such as smart technology earbuds can provide immediate translation support and assist with conference platforms using AI to render automatic captions to assist multilingual parties in understanding what is being discussed.²¹⁴ To tackle the economic instability of the African continent, the implementation of unbiased AI regulations that foster empowerment and inclusivity is crucial for supporting underprivileged workers and contributing to a more economically stable and sustainable community.²¹⁵ Additionally, any efficient ADR mechanism must be designed in a way that is flexible so that it provides justice in a way culturally fitting as well as dynamic.²¹⁶ To address the socio-economic problems in Africa specifically mentioned, African courts must institute vigorous ADR policies and legislation which would boost ADR’s reputation when dealing with sceptical litigants and increase the use of ADR, legislation would present a necessary framework for reform, review and reference.²¹⁷ Local, national and international leaders must invest in training initiatives for ADR practitioners, as well as for religious and local leaders and women, as this would encourage conflict(s) reduction and minimalise the number of court cases that strain case dockets.²¹⁸ By combining AI regulations and AI neural systems, accessibility to ADR can be improved in Africa and the core issues that contribute to it (such as poverty) will also be minimalised.

Relationship Between AI and Data Encryption’ 20 September 2023

<https://www.aisecuredata.com/relationship-ai-data-encryption/> (accessed 1 August 2024).

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4. Research Questions

Regarding the research questions proposed above, the first questions pertain to the legal framework of AI and ADR and the second question investigates what AI entails and how it is used in modern ADR practices. South Africa and the U.S. do not possess any legislation that specifically targets AI but they do possess guidelines such as the AI Discussion document to guide discussions regarding AI. It is therefore the recommendation of this study that countries such as S.A. and the U.S. adopt a similar legislative approach as Europe did with its AI Act. This will ensure legislation that is set in stone to regulate AI and ensure that there are consequences for those that transgress the rules put forward in a similar act to be adopted by African countries. Secondly, AI is mainly used to develop its online dispute resolution platforms, and by using decision support systems such as AGAMU and CADRE, the substantive role that AI serves in ADR enhances the transparency and efficiency of the processes. The third research question asks what the threats and challenges are of implementing AI in ADR practices. This question was answered in Chapter 3 by highlighting the bias and discrimination, accessibility issues and the lack of effective legal frameworks that the implementation of AI in ADR presents. Lastly, the fourth research question has been answered above. AI is presently not effective enough to address all the challenges of ADR, as AI inherently also presents challenges that must first be fixed before it can be implemented in ADR. The risks of hacking, data breaches and biased programming overshadow the potential of AI to improve accessibility issues and language barriers.

5. Recommendations

It is the recommendation of this study that countries such as S.A., develop and implement designated legislation to monitor AI, and that guidelines such as the AI Act implemented in Europe be followed, as this will build trust in citizens to adopt AI as well. This framework should explicitly address ethical and transparency concerns and possibly include a section that obligates the use of diverse data for AI to be trained on and implemented in ADR practices. Additionally, this legal framework should also obligate regular AI auditing as part of its mandate. The legal framework should also include security protocols to be followed to prevent the misuse of AI and hacking attempts.

This study also recommends that countries (especially in Africa) adopt technology literacy programs that engage with disadvantaged communities to strengthen their knowledge regarding AI and how to use AI tools efficiently. These programs will ensure that access to justice increases, and that language barriers are also defeated, as AI is the perfect solution to translation services.

6. Conclusion

In conclusion, this dissertation has investigated AI and ADR respectively, as well as the implementation of AI in ADR, showcasing both the challenges and advantages they present. Although AI can increase the efficiency, accessibility and transparency of dispute resolution systems, it also presents challenges such as bias and discrimination, socio-economic challenges and privacy systems. By adopting security protocols to prevent malicious AI practices, AI can be used in a safe way to assist ADR practices in increasing its accessibility and transparency. AI-driven ADR mechanisms can, with careful and proper regulation, serve as life-changing tools that promotes equality and better access to justice, encouraging a more inclusive and fair dispute resolution framework(s) and environment.

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