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AI AND PERSONALITY: A CASE FOR PARTIAL LEGAL PERSONHOOD

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Declaration

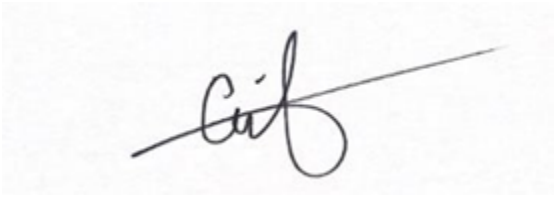
I, **KITAO TASHA HAIKA**, do hereby declare that this research is my original work and that to the best of my knowledge and belief, it has not been previously, in its entirety or in part, been submitted to any other university for a degree or diploma. Other works cited or referred to are accordingly acknowledged.

Signed: .....**T.H.K**.....

Date: .....18 OF MARCH 2024.....

This dissertation has been submitted for examination with my approval as University Supervisor.

Cecil Abungu



Abstract

What does it mean to be a legal person? Better yet, who can be a legal person? And why would one need legal personality? AI has revolutionised the world much like electricity did but unlike electricity, it is stirring waves in legal academic and policy creation circles. This is because the nature of AI, somewhere in the dissection of a Venn Diagram of things and humans, does not neatly fit into the moulds we have created in our legal regimes.

This project then seeks to examine the possibility of the creation of a new category of juridical persons and if it is at all necessary, to begin with. It does this via three research objectives: separating legal personality from moral personality and how that might affect the creation of any new legal categories, considering the peculiarities of AI to our current regime to seek a justification for the creation of new categories for persons and lastly, analysing the current global position on recognition and regulation of AI to see what benefit a new category of legal personhood would entail.

This project seeks to make a case for Partial Legal Personhood, a concept borrowed from the Germanic Private Law concept of 'Teilrechtsfähigkeit' as a possible solution to the status question. It argues that Partial Legal Personhood is not a new category of juridical persons like Electronic Personhood as proposed by the European Parliament, but a re-articulation of a contemporary understanding of what legal personhood entails. Finally, I conclude in this project that the adoption and adaptation of Partial Legal Personhood is justifiable because that would provide a means of legal redress for the continued commercialised use of AI if harms (foreseen and unpredicted) occur.

List of Abbreviations

AI - Artificial Intelligence.
BGB- Germanic Civil Law Code.
EU- European Union.
PLP- Partial Legal Personhood.
SAI- Systems of AI.

List of Cases

Barber v. Superior Ct., (1983) Court of Appeal of California.
Comptroller v. Family Entertainment, (1987), Court of Special Appeals Maryland.
Rasmussen v. Fleming, (1987), Supreme Court of Arizona.
Re Jobes, (1987), Supreme Court of New Jersey.
Re Peter, (1987), Supreme Court of New Jersey.
Salomon v A Salomon Co., [1897], House of Lords.
White v. Samsung Elecs. Am. Inc.,(1993), Court of Appeals Ninth Circuit.

List of Legal Instruments

Germanic Civil Law Code BGB 2002, last amended in 2021.
Communication From The Commission To The European Parliament, The European Council, The Council, The European Economic And Social Committee And The Committee Of The Regions Artificial Intelligence For Europe 2018.
European Parliament Resolution of 16th February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics.
Proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) 2021.

1.0 INTRODUCTION

1.1 Background

"It's going to be interesting to see how society deals with artificial intelligence, but it will definitely be cool." - Colin Angle.

AI is defined as the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.[1] An alternative definition is offered by Dimiter Dobrev, informally stated as a program which in an arbitrary world will cope not worse than a human.[2] Patrick Smith focuses on the definition, "AI is a system or algorithm that allows computers to perform tasks without explicitly being programmed to do so." [3]
John Mcarthy defines AI as having seven characteristics- 1. Simulating higher functions of the human brain. 2. Programming a computer to use general language. 3. Arranging hypothetical neurons in a manner so it can form concepts. 4. Finding ways to determine and measure problem complexity. 5. Self-improvement. 6. Abstraction that defines the quality of addressing ideas rather than events. 7. Randomness and creativity.[4]
Countless more definitions exist, in fact depending on the nature of the field from which you discuss the matter, AI definitions change and adapt. But there exists a commonality among them. Some of the commonalities that shall be the focus of this research are: a comparison to human intelligence, a degree of autonomy, human interaction to some extent[5], and the ability to learn and adapt beyond the programming of its human creator.

[1] Oxford Languages Dictionary 10 ed.
[2] Dobrev D, A Definition of Artificial Intelligence, Institute of Mathematics and Informatics Bulgarian Academy of Sciences, Bulgaria, 2004, 2-5.
[3] Smith P, Hands-On Artificial Intelligence for Beginners: An Introduction to AI Concepts, Algorithms and their Implementation, Packt Publishing, United Kingdom, 2018, 6-13.
[4] Addo A, Centhala S and Shanmugam M, Artificial Intelligence for Risk Management, New York, Business Expert Press,2020, 4-11.
[5] James H, "Evaluating the impact of office automation on top management communication", National Computer Conference and Exposition, New York, 7-10 June 1976, 611–616.

As earlier stated, the field is revolutionary. That term was specifically selected because AI, be it Artificial Neural Networks, Deep Learning, Machine Learning, Language Processing etc, is the future and the future is now. For the purposes of this paper AI can be classified into three broad categories, Artificial Narrow Intelligence[6], Artificial General Intelligence[7] and Artificial Super Intelligence.[8]

However, AI and Systems of AI pose some significant challenges both ethically and legally and in whatever field AI or SAI are being implemented you notice the same phenomenon of the law trying to keep up with an ever growing and advancing technological field. [9]

Some of these problems are design and nature related problems of AI and others are use and implementation related problems of AI. These problems include but are not limited to lack of algorithmic transparency, cyber security vulnerabilities, unfairness, bias and discrimination, privacy and data protection issues etc. Some of these problems are cross cutting and inter-related. [10] There is equally a matter of who is most likely to be affected both directly and indirectly and how do we remedy those wrongs?[11] Moving beyond an anthropocentric approach, what then would our obligations to such entities or systems be?[12] Which then brings us to the question of Legal Personhood of AI and consequently SAI. What is AI and AI systems from a legal perspective?[13] This is the status question that Schirmer poses. This is difficult to answer because of the nature of the subject of the question, they are both created and creator, forcing us to determine if we should treat them

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[6] What Does Artificial Narrow Intelligence Mean? Techopedia, April 2022, _ <https://www.techopedia.com/definition/32874/narrow-artificial-intelligence-narrow-ai > on 12 January 2023.

[7] Pennachin C and Goertzel B, Artificial General Intelligence, Springer Verlag Berlin Heidelberg, 2007, 1-28.

[8] Bostrom N,"How Long Before Superintelligence?" International Journal of Futures Studies, 2. 1998 _ <https://nickbostrom.com/superintelligence > on 12 January 2023.

[9] Chesterman S, The Law plays Catch-up with Technology, The Strait Times Opinion published 2015, _<https://www.straitstimes.com/opinion/law-plays-catch-up-with-technology?close=true> on the 13th September 2023.

[10] Rodriguez R, Legal and human rights issues of AI: Gaps, challenges and vulnerabilities, Journal of Responsible Technology, Vol 4, 2020 _<https://www.sciencedirect.com/science/article/pii/S2666659620300056#sec0004> on the 3rd October 2023.

[11] Lemley M and Casey B, Remedies for RobotsAuthor(s), Vol. 86, No. 5, The University of Chicago Law Review, 2019, 1311-1396.

[12] Sparrow R, Can machines be people? Reflections on the Turing Triage Test. In Lin L, AbneyK , and Bekey G (eds) Robot Ethics: The Ethical and Social Implications of Robotics. MIT Press, Cambridge, Massaschussettes, 2012, 301-315.

[13] SchirmerJ "Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status Made in Germany," Wischmeyer T, and Rademachert (eds), Springer, 124, 2020, 123.

as we would corporations or people, or create new categories for their existence, being careful not to derive suppositions from factualities[14].

What all AI systems have in common is that they border between 'thing' and 'person.'[15] This then causes a conundrum for our legal systems as new entities, innovation and change do not always fit neatly in the moulds we have set up. So then comes the question of having to create new moulds or do altering our understanding of the new entities and innovations to fit the older ones.[16]

There is an ongoing debate as to whether AI fits within existing legal frameworks or if new categories should be created specifically for them. [17] Informing these debates are the legal and ethical philosophies, technical nature of AI, and political interests.[18]

Legally, we are tasked with investigating if such entities (can and should they) have standing before a court, the plausibility and enforceability of judgement decrees, the nature of remedy for wrongs caused or wrongs experienced and ultimately the liability of such entities as opposed to their human designers. [19]

Currently, the debate for integrating AI into a legal reality as I see it has taken one of these broad categories: Legal Inclusivity- which argues for the creation of legal personhood similar to but not equated to the Corporate personhood model. Arguments in this category include the creation of Electronic personhood[20]; Legal Exclusivity- These arguments opt to use regulation and policy formulation as a way to integrate AI into legal systems, for example the EU AI Act draft that seeks to regulate how high risk AI and SAI are used[21]. In the extreme scholars in this category do not see the point of creating novel categories to fit

[14] Hume D, A Treatise of Human Nature, in Norton D and Norton M (eds), Clarendon , Oxford University Press, 2007, 7-17.

[15] Mocanu D, Gradient Legal Personhood for AI Systems- Painting Continental Legal Shapes Made to Fit Analytical Moulds, Volume 8, Frontiers in Robotics and AI, Systematic Review, 2022, 1-9.

[16]Mocanu D, Gradient Legal Personhood for AI Systems- Painting Continental Legal Shapes Made to Fit Analytical Moulds, 1-9.

[17] European Parliament Resolution of 16th February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics.

[18] Burri T, International Law and Artificial Intelligence,vol. 60, German Yearbook of International Law 2017, Duncker & Humblot, Berlin, 2019, 91-108.

[19] Lemley M and Casey B, Remedies for Robots Author(s), 1 .

[20] Sergio M, Robot as Legal Person: Electronic Personhood in Robotics and Artificial Intelligence, Volume 8, Front. Robot. AI 2021, 1-8.

[21] European Commission on Artificial Intelligence and Robotics, A European Approach to Artificial Intelligence, https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence on 13th September 2023.

AI needs[22]; Legal Creativity allows for the creation of new legal personhood categories as a midway point between the two polar extremes reaping the benefits that personhood would afford AI whilst avoiding the implementation pitfalls that it would entail. [23] and lastly Legal Pacifism- scholars in this field argue that in order to make an informed decision we must first carefully and pragmatically examine each ethical and legal question rather than make a rushed decision. One such scholar is Ugo Pagallo argues that we need to take a step back and recognise that the debate is ideological. [24]

Because of the dynamic nature of AI and the static nature of the law, we must strike a balance in which we continue to enjoy the privileges of our legal relationships whilst accommodating the bizarre and unorthodox requirements of AI which is what Partial Legal Personhood could potentially offer.

1.2 Statement Of Problem

The EU AI Act should it come into force would be the first of its kind offering a blueprint for AI particularly high risk AI regulation. But this does not offer any long term solutions as to the integration of AI into a legal reality. Similarly, full legal personality then raises ethical questions as to the nature of AI and our understanding as to what it means to be a person whilst AI as a field continues to grow and change and increases the risk of harm caused. We are then tasked with finding a solution, thus, this study's primary focus is to holistically answer the question, should partial legal personhood be granted to AI?

[22] Schirmer J, Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status made in Germany, 123-125.

[23] Schirmer J, Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status made in Germany, 123-125.

[24] Pagallo U, "Apples, Oranges, Robots: Four misunderstandings in today's debate on the legal status of AI systems" Philosophical Transactions, Royal Society Publishing, 2018, Downloaded from https://royalsocietypublishing.org/ on 10 January 2023.

1.3 Research Objectives

This project can be broken down into 3 main limbs- what, why and how- as reflected in the research objectives below. The second limb- the why takes up the bulk of this project.

A. To examine the understanding of what legal personhood is as separate from other personhood categories and thus construct an understanding of what partial legal personhood is and what it could look like.
B. To assess the nuance AI poses to the design and understanding of the current legal regime and thus determine if a new personhood category known as partial legal personhood ought to be created.
C. To gauge and consider the theoretical applicability of any such legal personhood category should it come into force and the ramifications it poses in so doing.

1.4 Research Questions

Keeping in theme of what, why and how this project attempts to meet the above mentioned objectives by answering the following questions.

a. Answering the what of it:

How is legal personhood different from moral personhood? And can we derive a working definition of partial legal personhood from it?

b. Answering the why of it:

Would existing conventional and contemporary understanding of recognition suit AI?

c. Answering the how of it:

What is the current global position on AI in legislation, judgement and recognition? Is this position suitable long term?

1.5 Hypothesis

There is no denying that AI has and will continue to revolutionise the way in which we relate with the world and with each other. The question then lies in how it will do so. We are currently experiencing some of these changes in our everyday lives, in politics, in our social media, in art and healthcare etc. Thus it is my hypothesis that the law, though slow moving to change, will at some point need to make these changes and accommodate AI and SAIs. Thus, in creating and granting partial legal personhood to AI and SAI the law is better equipped to cater to the needs of a society integrated with AI beyond litigation.

1.6 Justification

Because AI is making radical changes to multiple aspects of living and is set to revolutionise even more like work[25] and management of healthcare[26] This research affects all of us on an individual and collective level. More specifically, as Kenyans and in light of Vision 2030s fast approaching deadline, we have even more reason to delve into AI and automation research and application. This is in recognition that the risks of fully autonomous and generally intelligent or super intelligent AI are great but the benefits of utilisation and preparedness are far greater based on the predictions made years prior. [27]

With that being said this research is key for multiple actors. State actors such as policy makers, legislators and judicial or quasi judicial officers stand to benefit the most as the paper is centred around policy formulation, legislation and interpretation. Private companies and individuals also stand to benefit as well as more and more venture people incorporate the economic uses of AI in their daily lives. This research offers a solution as to the autonomy risk and liability assignment in the event of complications. And lastly this research is beneficial to anyone interested in the field and the discourse.

[25] Daugherty P and Wilson H, Human + Machina: Reimagining Work in the Age of AI, Boston, Harvard Business Review Press, 2018, 23-76.

[26] Topol E, Deep Medicine: How Artificial Intelligence Can Make Healthcare Human Again, New York, Basic Books, 2019, 59–67.

[27] Kurzweil R, The Age of Intelligent Machines, Cambridge Massachusetts, MIT Press, 1990, 425–449.

1.7 Theoretical And Conceptual Framework

1.7.1 The Gradient Theory Of Legal Personhood

Several theories of personhood dominate the ethical and philosophical academic landscape. The three major theories may be broadly categorised into the classical, psychological and ethical understanding[28]. Contemporarily, the debate of the person has taken two broad approaches, axiological and descriptive, with the former being repostulations of the classical theory as understood by Thomas and Kant and the latter being tied to the tradition of Locke. [29] Applying this to AI, the very nuanced conversation on definitions- and when it comes to AI definitions exist galore. Whether AI is intelligent, autonomous, self learning, self correcting, creative- echoing McCarthy's characteristics that were earlier stated, we cannot escape the confines of the categorisation between thing and person.

The Gradient theory of personhood offers us this route- it allows for the idea that personhood is not set in stone but that it can come in varying degrees and be lost in the same manner. According to Anne Conway, the gradient theory of personal identity suggests a spectrum upon which entities exist, with some entities being considered lower than others but a threshold for the assigning of personhood exists that is not based on necessity of the conditions but their sufficiency.[30] It allows for the existence of flexibility. And it is from this perspective that the project is conducted.

1.7.2 AI as Having Moral Worth

This research project makes the clear distinction between moral personhood and legal personhood, however it takes cognizance that moral status will equally influence legal

[28] Brozek B, Identifying the Troublesome Person in Kukri V, Pietrzykowski T (eds), Legal Personhood: Animals Artificial Intelligence and the Unborn, Springer Volume, 2017, 119, 3-15.
[29] Brozek B, Identifying the Troublesome Person, p 7.
[30] Gordon-Roth J, What Kind of Monist Is Anne Finch Conway? 4 (3), J. Am. Philos. Assoc. 2018, 280–297.

status.[31] Despite the general equivalence there is in fact a difference between being a human being and being a person. The concept of personhood is defined as having person -making qualities or features specifically self consciousness and rationality, which is a personist point of view argument. The personist argument then values these features or characteristics as assigning moral worth and incapable of being solely attributed to human beings thus creating room for arguments for non human entities having moral worth and being capable of being termed as persons[32] It is from this perspective that the basis of this research is conducted. The future of AI and SAI is fully autonomous rational and self conscious machines, thus presenting the two main person making qualities. This research does not purport to equate the moral worth of AI and SAI to that of human beings, nor does it derail the humanist argument and naturalist argument of personhood and moral worth. This research project is conducted with the understanding that AI and SAI have some moral worth or at the very least shall be capable of having moral worth in the immediate near future. Hence from this perspective, it proceeds to argue for partial legal recognition to the extent that the moral worth is present.

1.8 Literature Review

1.8. 1 Where Are We In The Conversation

As was earlier stated, the discussion around AI and legal status is highly polarised and heated. With several proponents for and against. Let us now discuss the discourse as an ethical and legal issue.

Wojtczak offers that regardless of looking at personhood as a bundle or a gradient it does not negate the fact that legal personhood is a complex attribute of legal theory. It is gradable, discrete, multifaceted, continuous and fluid. [33]

[31] Milinkovic I, The Moral and Legal Status of Artificial Intelligence (Present Dilemmas and Future Challenges), Volume 1, Number 1, Law and Business, 2021, 29-36.

[32] Kadlac A, Humanising personhood, Ethical theory and moral practice, 13, No 4, 2010, 421-437.

[33]Wojtczak S, Endowing Artificial Intelligence with Legal Subjectivity. AI & Soc. doi:10.1007/s00146-021-01147-7 2021.

The bundle metaphor is used to explain the ability to hold rights and duties as a cluster of connected incidents in a relationship. Kurki offers that because changing the meaning of who or what constitutes legal personhood is futile that the meaning should be adapted to accommodate emerging theories of rights. [34] He further argues that there are three contexts upon which such personhood is granted- an ultimate value context, a responsibility context and a commercial context. All these contexts share a connection with the three central building blocks of legal personhood.[35] He further argues that because of the human nature of the collectivities of AI that they can hold claim rights either intrinsically or as proxy. Chopra and White further the argument that facilitating mechanism for the assignment of liability for at least some of their actions to AI and AI systems would be the best reason to grant the creation partial personhood in the first place.[36] An argument echoed by Robert Sparrow. He makes reliance on the Turing Triage Tests developed by Alan Turing. Sparrow offers a different perspective of the ethical dilemmas that equates personhood to moral standing, arguing that AI should be granted personhood when it can conclusively pass the test[37] i.e when a human person faces a moral dilemma when choosing between the interests of a human and the interests of AI. There are two reasons why AI would be considered persons before the law, one being that there is a person to blame when mistakes are made dealing with accountability gaps created by autonomy and speed. [38] The second is the inverse of the first having someone to reward when things go right for example the discourse on AI and ownership of intellectual property. [39]However, whilst these are good reasons, Simon Chesterman argues that legal systems creating novel legal categories of persons catered to AI are based on insufficient or overly complex arguments in support of the same.[40] I however argue that the reasons stipulated in the background of this project warrant the creation of the same. In fact I borrow the argument by Mocanu for the

[34] Kurki V, A theory of Legal Personhood, p 86-87.
[35] Kurki V, A theory of Legal Personhood, p 86-87.
[36] Chopra S and White L, A Legal Theory for Autonomous Artificial Agents. Ann Arbor: University of Michigan Press 2011.
[37] Sparrow R, 'The Turing Triage Tests', 6,(4) Ethics and Information Technology- (4), Springer, 2004, 203-213.
[38] Chesterman S, 'Artificial Intelligence and the Problem of Autonomy' 1 Notre Dame Journal of Emerging Technologies, 2020, 210.
[39] Christou L, 'When machines create: Should AI be recognised as an inventor?', Verdict, 2 August 2019 - https://www.verdict.co.uk/dabus-ai-can-ai-invent/ on 12 January 2023.
[40] S Chesterman, Artificial Intelligence and the Limits of Legal Personality, Cambridge University Press for British Institute of International and Comparative Law, 2020.

utilisation of legal creativity in order to adequately allow for the creation of a legal ecosystem in which AI and AI systems can flourish.

When it comes to responsibility and liability in the case of AI systems, Bartneck et al discuss the difference between moral responsibility and liability which is legal responsibility, using the example of the Autonomous weapons system that has since caused the wrongful death of a civilian. They argue that the existing concept of strict liability could be utilised to attribute legal consequences to both the system and the humans responsible for its management as is the case in the German Ethics Code for Automated and Connected Driving.[41] They equally raise the question concerning the consequences of liability be it strict or complex in the name of sanctions. In this case they argue that corporate liability would be most useful[42] but this continues to, in my opinion, skirt around the legal problem of the corporate veil. A sentiment held by Negri who argues that the danger of blanketly applying the corporate model of legal personhood to AI overlooks the legal realities corporations exist in. I would argue that like corporate personhood, it is possible to attribute legal status to AI if not for any other reason than the simple fact that it is reshaping our world as we know it. This is not to say that the two personhood should be identical, rather they could be analogous but still distinct and unique to each circumstance.

1.8. 2 The Contextual Nature Of Granting Partial Legal Personhood Of AI

Hoffman in 1986, highlights the problems around debating personhood in general as a matter of identifying what is at stake in not resolving the debate, whom best to decide the granting of personhood and what criteria ought to apply in granting such personhood[43] Extrapolating that argument to AI, I echo these sentiments. The granting of partial recognition in law, based on the gradient theory recognises that the bundle metaphor has connotations of artificially tying together a set of non distinct or random items, whereas a gradient might be a metaphor more apt at capturing the quality of legal personhood as a

[41] Bartneck C, Lutge C, Wagner A and Welsh S, An Introduction to Ethics in Robotics and AI, Springer Briefs in Ethics, Open Access, 2021.

[42] Bartneck C, Lutge C, Wagner A and Welsh S, An Introduction to Ethics in Robotics and AI.

[43] Hoffman D, Personhood and Rights, Vol 19, No 1, Polity The University of Chicago Press on behalf of the Northeastern Political Science Association, 1986, 74-96.

cluster property with its extension determined based on a weighted list of neither necessary, nor sufficient criteria. This, in turn, suggests different items of the same kind (in this case rights) can be added or subtracted to end up placed differently on the gradient.[44] As aptly put by Mocanu, AI and AI systems are not mere collections of things tied together by the proverbial vinculum juris, but tools for creating new things altogether, extensions of composing parts with their shape, size, and colour situated on gradients[45]

Gordon posits that currently existing robots should not be ascribed legal personhood because of their technical limitations but that such should be granted once they achieve a level comparable to humans[46] In so doing he brings out two of the markers that would inform context which is time and complexity of the machine. I'd further dissect that complexity to include the capacity of the machine in the context it was being utilised and the repercussions of such utilisation.

Contribution

Whilst agreeably, the legal personality of AI is a heavily debated topic in international fora, this paper seeks to localise the discussion for our own needs. This is because several nations and trading blocs are already taking active steps to engage the matter.[47] By devising a rubric from which we can gauge the responsibilities and duties such AI would undertake, we can determine the tortious liability, contractual perhaps criminal liability. It looks at the practical benefits of granting such partial legal personhood to AI and the long term implications it has on the understanding of legal personhood for non-human and extra-human entities in the country, policy formulation and implementation and the fulfilment of our goals in Vision 2030. By looking into what legal personhood entails, as an understanding of the gradient of rights theory and the extent at which it can be expanded

[44] Mocanu D, Gradient Legal Personhood for AI Systems- Painting Continental Legal Shapes Made to Fit Analytical Moulds, 2-5.
[45] Mocanu D, Gradient Legal Personhood for AI Systems- Painting Continental Legal Shapes Made to Fit Analytical Moulds, 2-5.
[46] Gordon JS, Artificial moral and legal personhood, 36, AI & society, Springer, 2021, 457-71.
[47] European Parliament Resolution 16 February 2017.

to accommodate AI from a reinterpretation of Hohfeldian relationships, this paper facilitates the development of technology and automation based infrastructures that would poise Kenya to reap the benefits of the 4th Industrial Revolution.[48]

1.9 Methodology

This research project has a primary focus on answering the question "why?" but in doing so it must answer what and how. Thus it requires applying different methodologies in establishing those answers. In order to answer the research questions as detailed as possible, I have opted to use qualitative approach comprising philosophical analysis, critical analysis, historical analysis and comparative analysis relying on primarily secondary sources such as books, chapters in books, journal articles and working papers and one primary source of information which is the EU Parliamentary Resolution On Civil Law Rules on Robotics. Should the AI Act be gazetted by the EU Council it will also serve as a primary source of information.

The entire study is reliant on a limited but sufficient technological understanding on the creation and utilisation of AI. By utilising the Gradient theory of personhood and understanding that creation of such legal status should be contextual, the project makes a case for the creation and application of partial legal personhood for AI and AI systems by reviewing current discourse, limited legislation and policy.

From the research questions above, this project shall utilise, critical, philosophical, historical and comparative analysis in understanding what the various categories of personhood are and how they relate with one another in order to determine a working definition for partial legal personhood.

[48] Artificial Intelligence: The Fourth Industrial Revolution, _< Artificial Intelligence: The fourth industrial revolution (information-age.com) > retrieved on 12 January 2023.

The primary approach to answering the why of it will be critical analysis. Particularly in determining the peculiar nature of AI and its compatibility with partial legal personhood and the outcomes of ascribing such personhood currently and in future.
Lastly in answering the how of it, a combination of comparative and critical analysis of the current legal status of AI in different jurisdictions and how such status is configured in light of the possibility of the European AI act.

1.10 Chapter Breakdown

This research proposal serves as chapter one of the project. It outlines among other things, the problem, research objectives, the underlying research questions, the hypothesis and the justification of the project. It also offers the current academic discussions in the field, the theoretical and conceptual framework that is utilised throughout the project and the methodology utilised in answering each research question.
Chapter two will be dedicated to answering the first set of research questions. It will create a historical timeline on the evolution of our understanding of personhood and thus creating this research's working definition of partial legal personhood
Chapter three will be entirely devoted to the meat of the project- the why. It will cover among other things, the justifications of partial legal personhood as a legal category, partial legal personhood as the primary choice of category for AI and SAI, the discussion around both the immediate and future theoretical benefits and limitations of it.
Chapter four shall then analyse the current legal status of AI globally and compare several jurisdictions within the EU, NATO and Asia Pacific and Africa and ground us in the practical applications of any and all legislation on the same.
Lastly chapter five reverts back to the theoretical consequences of creating this novel category and making it a mainstream legal concept. It will look into the possible ramifications of the same and conclude this research project.

2.O UNDERSTANDING LEGAL PERSONHOOD: A SEPARATION FROM MORAL PERSONHOOD AND THE IMPLICATIONS FOR PARTIAL LEGAL PERSONHOOD

2.1 Introduction

“ Imagination is the beginning of creation. You imagine what you desire. You will what you imagine and at last, you create what you will” - George Bernard Shaw.

This chapter is primarily concerned with determining if partial legal personality is plausible. It is a matter of can and what. It seeks to define what partial legal recognition is by analysing the manner in which legal personhood has evolved in legal philosophy. It starts by examining what it means to be a legal person as opposed to being a moral person. The chapter then seeks to illustrate the differences between the two personalities as well as highlight the interplay between the two. It does this by initially tracing the history of legal personality as a philosophical concept. It then advances a contemporary understanding of legal personality beyond its orthodox evolution. It considers the theoretical and jurisprudential differences between legal and moral personality. Lastly we tackle Partial Legal Personhood as a concept by examining its elements and the context in which it could be granted or applied.

2.2 Historical Evolution of Legal Personhood

In the Holy Scriptures, the Lord refers to Himself as “I am”[49]. Equally the phrase "I think therefore I am" is commonly quoted, but what is “I” and what is “am”? What does it mean to be a person before the law? For the purpose of this project personhood and personality are interchangeable terms however, later on we will discuss the difference between personhood and recognition as technical terms. However, now we will restrict ourselves to tracing the historical evolution of the concept of legal personhood or personality.

[49] Exodus 3:14, New International Version.

The historical evolution of personhood, legal personhood can be traced via Legal analysis. I do not purport that other methods do not exist, but this shall be the focus of this section of the paper

2.2.1 Evolution of Personhood via Legal Analysis.

Worth noting, is the analysis regardless of the scholar in question, comes to the same conclusion- that a legal person is one the state deems as having rights and duties. [50]

We start from the beginning in where legal recognition can be understood as people, things and actions. [51] In classical roman history, the person was used to refer to a mask worn during theatrical performances. The technical meaning of persona could refer to human functions and characteristics, but as Cicero noted, we have four personae: reason, personal qualities, position and occupation.[52]

The concept of right, and its relation to personhood, would become important first among Renaissance humanists; then in the systems of natural law built by Dutch and German scholars such as Hugo Grotius, Gottfried Leibniz, and Christian Wolff during the early modern age; and finally in the German Historical School, mostly known for its primary proponent, Friedrich Carl von Savigny.[53]

In the early modern era, Doneau laid the foundation of the technical legal concept of personhood. Persona now took the meaning of one who has positive *status libertatis*, *civitatis*, and *familiae.* It took on the role of a person in civil society. This was compounded on by Grotuis and Pundelforf, who continued to use a systematic approach to legal doctrines in a bid to replace the casuistic and disarrayed conceptualisation of personhood.[54]

In the age of enlightenment, legal scholarship was quasi-mathematical, where legal questions could be solved via a set of axioms. The relevant scholar here was Leibniz. He designed his system of private law to include three things, persons- subjects, things- objects

[50] Smith B, Legal personality, Volume 37, No 3, Yale Law Journal, 1928, 283-289.
[51] Poste E e.d, Gaius, Institutiones or Institutes of Roman Law, Clarendon, Oxford University Press 1904 8.
[52] Kurki V, A theory of Legal Personhood, 32-53.
[53] Kurki V, A theory of Legal Personhood, 32-53.
[54] Kurki V, A theory of Legal Personhood, 32-53.

and causes or rights. This is where we start to see a differentiation between natural persons and artificial persons. [55]

The next era of legal scholarship is dominated by Kant and Hegel and centres the abstract reasoning of personhood and rights. This era then paved the way for scholars like Hugo and Savigny in the historical era. Savigny offers an interesting understanding of how legal personhood gives life to social relationships such as patrimony or in creating charges and that a judge must be aware of these connections in order to arrive at an accurate legal conclusion. In summary, rights were either legally enforceable choices or legally protected interests, and persons were the holders of these rights.[56]

2.3 A Contemporary Understanding of Legal Personhood

Having traced the evolution of the concept of legal personhood, we have sufficiently come to understand an orthodox or traditional view of legal personality. In this section we will look at the contemporary understanding of the same as discussed by Kurki.

Kukri describes legal personhood as a cluster property, and best understood in terms of disseverable but interconnected incidents. [57] Ideally according to him, an entity can possess some of the incidents of personality without being a person.

He starts by critiquing the orthodox view of legal personhood which can be collapsed into the ability to hold rights and incur corresponding duties. According to him this doesn't hold up to current existing legal realities. [58]

In his analysis, legal personality is split into two, active and passive incidents. Active incidents are possessed by adults of sound mind, while passive incidents are possessed by minors, infants and adults in a vegetative state. Ideally both are legal subjects but they do not have the same rights. Active incidents have substantive legal competences such as capacity to administer other incidents without a representative. While passive incidents do not have substantive competences. Instead they claim fundamental protection. This involves being a beneficiary. Rights such as protection of life, liberty, bodily integrity have

[55] Kurki V, A theory of Legal Personhood, p 32-53.
[56] Kurki V, A theory of Legal Personhood, p 32-53.
[57] Kurki V, A theory of Legal Personhood, p 91- 125.
[58] Kurki V, A theory of Legal Personhood, p 86-87.

fundamental protection. The same can be said of standing and the right to be heard in court, albeit by special circumstances for children of a sensitive age. [59] Of particular importance is the discussion around competences as the ability to act in law. Which is what differentiates active incidents from passive incidents where one must be acted on the behalf of. [60]

But the bundle theory as he understands it is not particularly accurate. As Mullen[61] notes and Mocanu agrees, legal personality is a spectrum or continuum. Perhaps that is what Kurki refers to as 'disseverable but interconnected'

2.4 Differences between Legal and Moral Personhood

So how different is legal personality (both the orthodox and contemporary understanding) from moral personality? For one, moral personality is ascribed strictly to humans who belong to a moral community. This means that there is a necessary biological basis as well as a metaphysical one for ascribing moral personality. [62] Ethics then becomes the norms by which society is structured and individuals interact with each other. Much like legal personality, moral personality exists in many iterations; modernist approach, the embodied person, transcendental personhood, capacity approach personhood etc. Ideally if one considers the naturalist approach to moral personhood, one is a person because one is a human being with inherent rights and dignities.[63] Going back to the biological component, there is still the question of what moral personality is predicated on. According to Cranford and Smith, the most fundamental criterion is consciousness because consciousness is what separates humanity from other animal life, going beyond the vegetative function of respiration and a beating heart.[64] This is further illustrated by the cases Barber v Superior

[59] Kurki V, A theory of Legal Personhood, p 97- 118.
[60] Kurki V, A theory of Legal Personhood, p 97- 118.
[61] Mullen R, Legal Personality is a Spectrum: Recasting Legal Personhood and How Artificial Intelligence May Utilise this, Vol 21, University College Dublin Law Review, 2021, 67-98.
[62] Idjakpo O, Moral Obligation and Personhood in Emmanuel Levinas Philosophy, 13 no.4, Multidisciplinary Research Journal 2021, 30-49.
[63] Idjakpo O, Moral Obligation and Personhood, 32-40.
[64] Cranford R and Smith D, "Consciousness: The Most Critical Moral (Constitutional) Standard for Human Personhood," 13, no. 2&3, American Journal of Law & Medicine, 1987, 233-248.

Court[65] and Rasmussen v Fleming[66] where the courts held that patients that are permanently unconscious are in a different legal category that are dead, terminally ill, in a vegetative state or demented. In cases like re Jobes[67] and re Peter[68], the courts separated patients with no consciousness and those with minimal consciousness.

As earlier noted ethics is the vessel by which moral personhood is effected and this translates into legal personhood when matters of criminal culpability are discussed. In determining the origin of criminal liability, a moral component is necessary. Crimes are morally reprehensible actions that are then codified, but not all moral wrongs are crimes. And some crimes are not moral wrongs.[69] Interestingly even though the naturalist approach of moral personhood predicates recognition on being a human or having a body, upon further inspection, the body is not the most integral part. Foetuses have no corporal body but are moral persons, neither does becoming an amputee decrease your moral personhood. [70]

Whatever school of thought you belong to, the difference between Moral personhood and Legal Personhood is this; moral personhood concerns itself with understanding the nature of man and how that influences his relationship with other men, but legal personhood is concerned with the relationships of man with man and man and things and the ecosystem it creates. Because of what legal personhood is concerned with, it is evolutionary and devolutionary. There are periods of gain- meaning the understanding of legal personhood is expanded and times of loss. But the gain and loss is not instantaneous. However, this should not take away from the moral personhood, which remains constant with a single marker, being human.[71]

[65] Barber v. Superior Ct., (1983) Court of Appeal of California.
[66] Rasmussen v. Fleming, (1987), Supreme Court of Arizona.
[67] Re Jobes, (1987), Supreme Court of New Jersey.
[68] Re Peter, (1987), Supreme Court of New Jersey.
[69] Locke L, Personhood and Moral Responsibility, 9 no 1, Law and Philosophy, 1990, 39-66.
[70] Locke L, Personhood and Moral Responsibility, 40-50.
[71] Hughen R, The Evolution and Devolution of Personhood, The Personalist Forum, Vol. 8, No. 1, Supplement: Studies in Personalist Philosophy, Proceedings of the Conference on Persons, 1992, 275-280.

2.5 Partial Legal Personhood: A Concept

As earlier stated we would tackle the technical difference between recognition and personhood as it informs this research.

Recognition in Black Laws Dictionary means ratification, confirmation, an acknowledgement of the actions done by another person in that person's authority.[72] Personhood is then informed by recognition i.e. the courts may recognise the actions of an entity therefore granting that entity personality. Recognition denotes a key element of legal personality, which is societal acceptance, one becomes a person because other persons recognise them as such.[73]

Now having dispensed with this, we can focus on defining partial legal personhood as a concept. It has its origins in "Teilrechtsfähigkeit"- which when directly translated into english means partial legal capacity. It is a part of German civil law with regards to capacity to contract. [74] It makes another appearance with regards to succession with a community of heirs and joint ownership over an estate. Historically, legal personhood has been a binary concept, you either had it or you did not. [75] Take for instance in Salomon v Salomon, a company thus incorporated attains maturity, there is no growth period required.[76] Similarly, once a company completes the insolvency process, it is legally non-existent.

This binary way of thinking was sufficient for a long time until the need to have legal redress when dealing with entities that did not fit squarely into the yes or no check boxes.

Because of this Ehrlick considered the need to expand the understanding of legal capacity because the binary tier did not cover the grey areas of existing. [77] Woff then transforms Ehrlick's idea into what we know now as Teilrechtsfähigkeit , defining it to be "a status applicable to a human or an association of humans having legal capacity only according to

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[72] Black Laws Dictionary, 2nd Ed, helawdictionary.org/recognition/#:~:text=RECOGNITION%20Definition%20%26%20Legal%20Meaning&text=Ratification%3B%20confirmation%20%3B%20an%20acknowledgment%20that,one's%20name%20had%20one's%20authority. On the 8th of March 2024.

[73] Nwoye A, An Africentric Theory of Human Personhood, 54, Psychology In Society , 2017, 42-66.

[74] Section 1- 9, Natural Persons, Consumers and Traders, Division 1, BGB english translation sourced from, https://www.gesetze-im-internet.de/englisch_bgb/ on 8th of March 2024.

[75] SchirmerJ "Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status Made in Germany," 133-134.

[76] Salomon v A Salomon Co., [1897], House of Lords.

[77] Ehrlich E, Die Rechtsfähigkeit, Puttkammer & Mühlbrecht, Berlin, 1909.

specific legal rules, but otherwise not bearing duties and having rights" He further explains that under this status, an entity could have legal capacity with regard to some areas of law, whereas at the same time it could be excluded from others.[78]

German courts equally play their part in fleshing out Teilrechtsfähigkeit. Routinely acknowledging it for doctrinal and practical reasons. [79]

Thus, Teilrechtsfähigkeit is not predicated on morality but rather that the law will create addressable subjects according to its terms and conditions as a means of solving problems but only ever in a limited scope. [80] Behme explains this in an analogy of a candy jar, for legal subjects with full capacity, the jar starts off full under the positive presumption that all the person has all the rights and duties that the law has to offer. For legal subjects with partial capacity, the jar starts empty and candy is subsequently added. In the full jar, sweets are taken out to signify an obligation or a defence but in the second jar sweets that are added have to be justified. [81]

Now partial legal personhood as understood in this research borrows from this concept. For the purposes of this project, PLP is understood to be legal status that ascribes undetermined rights and corresponding obligations in a manner that such rights have limited entitlement upon the justification of the ascription. In the subsequent section we shall break down this working definition.

2.5.1 Elements of Partial Legal Personhood

PLP as defined in this project can be broken down into the following elements: undetermined rights and obligations, limited entitlement and justification.

a. Undetermined rights and obligations.

[78] SchirmerJ "Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status Made in Germany," 133-134.

[79] SchirmerJ "Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status Made in Germany," 135.

[80] SchirmerJ "Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status Made in Germany," 135.

[81] SchirmerJ "Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status Made in Germany," 136.

Going back to Behme's candy jar analogy, PLP starts off at the zero point on the legal personhood spectrum- an empty jar.[82] Maintaining an individual sweet as a right, I am making an assumption that the full legal personality jar is made up of several kinds of sweets as no two rights are the same. So by placing a single sweet into the PLP jar, we must indicate what right and corresponding duty is in question. Going back to Ehrlick's understanding of PLP, certain rights may be put into the jar in specific instances and others may not.[83] Thus the rights we ascribe in PLP are undetermined in nature. This element is a legal question.

b. Limited entitlement.

Still on the sweet reference, I will make another assumption based on Mocanu's explanation of the gradient theory of rights. The assumption being that I could place a half eaten sweet into the jar. Simply put, the sweet need not be whole when being placed in the jar. This is what I mean by limited entitlement. That the rights and corresponding duties exist in a continuum as well and only actualise upon merit. Away from the jar consider what Kurki discusses as passive and active accidents of legal personhood. The right to vote is a legal right only awarded to natural persons who have attained the age of majority- minors and infants may not vote but they do possess the right upon maturity.[84] This element is a legal question as well.

c. Justification.

The whole idea of placing a sweet in the jar in the first place is that it must be justified.[85] Justification however for this project has a specific metric to consider. This metric is devised around sophistication of the artificially intelligent agent, the function it was performing and the expected risks it has. Thus justification as an element is a factual question.

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[82] SchirmerJ "Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status Made in Germany," 136.

[83] Ehrlich E, Die Rechtsfähigkeit, Puttkammer & Mühlbrecht, Berlin, 1909.

[84] Kurki V, A theory of Legal Personhood, 6.

[85] SchirmerJ "Artificial Intelligence and Legal Personality: Introducing "Teilrechtsfähigkeit": A Partial Legal Status Made in Germany," 136.

2.6 Conclusion

Having looked at the evolution of personhood and noted that depending on the society in question and the extremities it faces, legal personality evolves. Where a legally creative era persists, the following era is conservative. As such personhood evolves and devolves constantly. Currently, we rely on Kurki's conceptualisation of legal personhood as modified by Mocanu. Meaning that for the rest of this project, personhood is a spectrum of disseverable but interconnected incidents. These incidents could be passive or active. And from this understanding we try to conceptualise what Partial legal personhood is.

3.0 A CASE FOR PARTIAL LEGAL PERSONHOOD

3.1 Introduction

“Some men see things as they are and say why. I see things that never were and say why not” - George Bernard Shaw.

This chapter is primarily concerned with the justifications of Partial Legal Personhood. We will ideally be determining why, if it all, Partial Legal Personality is necessary. It starts off by examining if Partial Legal Personhood is a new category of legal persons as well as the criticisms that creating such a category poses. It further discusses the justifications of Partial Legal Personhood as it regards use and interaction with AI or SAI.

3.2 A New Legal Category of Persons

3.2.1 AI and SAI: Uniqueness and the problems it poses

What exactly makes AI unique? Mocanu notes that all AI possess a bundle of features that make it difficult to distinguish between person and thing. [86]

The definitions of AI are sometimes bundled together with the features of AI. Similarly they could serve as markers of what constitutes AI as we discussed in chapter one.[87] Some of which are discussed in the figure of a table below.

[86] Mocanu D, Gradient Legal Personhood for AI Systems- Painting Continental Legal Shapes Made to Fit Analytical Moulds, p 2.

[87] James H, "Evaluating the impact of office automation on top management communication", p 611-613.

Element/Author	Schank (1987) Solaiman (2017)	Russel-Norvig (2009)	Nilsson (2010) Maas (2019)	Bertolini (2013)
communication	+			
external knowledge	+			
internal knowledge	+			
intentionality	+			
creativity	+			
thinking like a human being		+		
acting like a human being		+		
rationality		+		
proper function			+	
foresight regarding environment			+	
interaction and cooperation with the physical world				+
human supervision or autonomous action in performing tasks				+
modification of the external environment				+

Figure 3.2.1 *Features of AI, sourced from Hars A, AI and International Law- Legal Personality and the Avenues for Regulation.*

The nature of AI is complex from its inception. This is because several fields have been involved. Namely statistics, robotics, linguistics, engineering, mathematics, neuroscience, logic. Neither is it as smart as we perceive it to be, being that AI currently takes on a form of heuristic machine learning rather than cognition the way a human being would.[88] Now this complexity is compounded by the attempt to fit AI into our current legal realities. [89]

But why do these problems exist? Considering that the corporate model of legal personality is based on human likeness,[90] shouldn't then AI which is modelled after with the intention to surpass human intelligence blend into our legal systems easily?

We have seen that it does not. This is because AI possesses technical peculiarities that then inform the different sets of rights and obligations in the areas and sectors they might be applied.[91]

3.2.2 Electronic Personhood

Now one of the suggestions raised to solve or side step the problems posed by integrating AI into a legal system is the creation of a new category of juridical persons namely Electronic Personhood. [92]

But what exactly is Electronic Personhood? This is an interpretative issue as Electronic personhood could denote a delineation from legal personhood to mean recognition of specific robot rights and duties or could just be another means to denote legal personhood much like we refer to corporate personhood. [93]

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[88] Hars A, AI and International Law- Legal Personality and the Avenues for Regulation, Original Research Paper, Hungarian Journal of Legal Studies, 6.

[89] Mocanu D, Gradient Legal Personhood for AI Systems- Painting Continental Legal Shapes Made to Fit Analytical Moulds, 2.

[90] Raskulla S, Hybrid Theory of Corporate Legal Personhood and its Application to Artificial Intelligence, Volume 3, 78, SN Soc Sci, 2023, p 1- 14.

[91] Novelli C et al A conceptual framework for legal personality and its application to AI, 13(2),Jurisprudence, 2022, 194–219.

[92] Para 59 (f), European Parliament Resolution of 16th February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics.

[93] Artificial Intelligence and Civil Liability, Legal Affairs, Study Requested by the JURII Committee of the European ParliamentPolicy Department for Citizens' Rights and Constitutional Affairs Directorate-General for Internal Policies, 2020, 35.

The two possible interpretations may be articulated as: Electronic personhood as the acknowledgment of individual rights of the artificial agent or as the equivalent of legal personhood. [94]

Under the first interpretation, the underlying assumption is that AI, particularly robots, remain products.[95] As such, there would be no technological, philosophical or legal reasons to deem machines as persons. And as of now, no machine or system of AI displays a level of autonomy to warrant such recognition. Since that level of sophistication is yet to be achieved, a human being would always be deemed responsible for the machine's output. This means that the responsibility gap is in fact a misperception. [96]

Under the second possible interpretation, Electronic personhood is either identical or similar to the notion of legal personhood. It would not be ascribed based on the characteristics of the machine but rather would be granted on a purely functional basis. However, in the event that this is what the EU parliament had envisioned, there would still be a need to assess the criteria for its granting and the sectors or classes of application it would apply to.[97]

For the rest of the project we opt to use an understanding of Electronic Personhood as an amalgamation of the two possible interpretations. That it is a category similar to Corporate personhood that acknowledges certain (determined but unlimited) rights and duties of sophisticated machines or AI systems. It is contingent on the sophistication of the machine.

But is PLP and Electronic Personhood the same thing? I argue it isn't, regardless of which interpretative model one chooses to analyse electronic personhood with, the working definition of PLP that we have come up with in the previous chapter remains distinct.

The two are separated by the nature of rights and corresponding obligations and the manner in which those rights are enjoyed.

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[94] Artificial Intelligence and Civil Liability, 36-38.

[95] Bertolini A, "Robots as Products: The Case for a Realistic Analysis of Robotic Applications and Liability Rules." 5(2), Law Innovation and Technology, 2013, 214.

[96] Artificial Intelligence and Civil Liability, 36-37.

[97] Leenes R, Palmerini E, Koops B, Bertolini A, Salvini P and Lucivero F, Regulatory Challenges of Robotics: Some Guidelines for Addressing Legal and Ethical Issues, Law Innovation and Technology, 2017, 1-44.

3.2.3 Criticisms of Change and New Categories of Persons

From the opted understanding of Electronic Personhood, certain criticisms are made with regards to creation of a new personhood category. The first being that currently no technology exists to the level of sophistication and autonomy that is necessary to warrant its creation.[98] Another criticism based not on the merits of the technology but rather the merits of the argument is that the justification reasons are altogether too simple or too complex, none of which benefit a legal regime. [99] Another criticism is that regulation rather than recognition is better suited to control the use of AI and the possible risks arising. The last criticism of relevance to this project is the liability or responsibility gap. Again this is contingent on sophistication and independence of the AI system in question.

3.3 Justifying Partial Legal Recognition

3.3.1 Sufficient Cause: Interaction with AI

So why do we need PLP adopted domestically or accepted internationally? Why bother? A notoriously difficult question to answer especially when we've previously discussed the criticisms with creating new categories of persons. But we remain under the conclusion that PLP at the very least need not be considered a new category and at the very most is not a new category. Still, it leaves us with the 'why?' This section will hopefully answer that question by investigating interaction with AI as a series of thought questions.

Interaction here having its common and legal (conferring rights and duties between the participants) meaning, can be split into two: a one on one interaction or a one to one to many interaction. The difference is this in a one on one interaction, a natural person or other artificial persons is engaging directly with AI and the outcome of that interaction affects only the natural or artificial persons involved. For example, a student using ChatGPT to research an assignment. A one to one to many, is set up much the same way only that the consequences of that interaction potentially affect third parties. Case in point, a disgruntled

[98] Artificial Intelligence and Civil Liability, 36-38.
[99] S Chesterman, 'Artificial Intelligence and the Problem of Autonomy', 210- 215.

lover using DALL-E to generate less than savoury images of their ex and publishing them. To make the matter more complex, assuming a more sophisticated version of DALL-E is launched and it autonomously publishes the same photos, unbeknownst to the disgruntled lover and without their prompt. Several key issues emerge.

In the first interaction, we have some interesting questions to tackle. For instance the algorithm can autonomously determine which sets of data and information to reveal to the student even if they are fictitious. In the case that they are and the student receives a failing grade does the student have the right to claim against the autonomous decision made by ChatGPT? Does ChatGPT have what Gunther et al define as the right to the protection of self determination of data?[100] Equally, does ChatGPT have IP rights in its generated works? And following if the student uses the work without acknowledgement of ChatGPT's involvement, does Chat GPT get to claim for copyright infringement?

In the second interaction model, whom should the ex claim against, the disgruntled lover who prompted the generation of the photos, in the second instance should they claim against the program itself for its autonomous decision?

Let us complicate the matter further, should in any of the interaction models, should the developers (coders of the algorithms) and the parent company owners be roped into the fray as well? Do they 'own' these programs? Are these AI systems capable of being owned? This last question raises both ethical and legal problems.

The truth of the matter is that AI in whatever form, algorithms, machine learning, neural networks etc is an everyday part of life and we have to admit to the reality that our legal regime as it exists is not equipped to handle it. The solution potentially lies in answering the status question but symbolic status with no normative function undermines the regime entirely. As AI becomes more sophisticated and autonomous, the more responsibility it should bear. But that equally means that a greater risk of harm is formed and a higher standard for monitoring is necessitated. [101]

Additionally, failing to recognise and appreciate the difficulties that AI poses to our current regime could and would result in significant unintended consequences—inadvertently

[100] Gunther J, Munch F, Beck S, Loffler S, Leroux C and Labruto R, Issues of Privacy and Electronic Personhood in Robotics, Research Gate, 2019, 1 _<:10.1109/ROMAN.2012.6343852>

[101] Metcalf K and Keri Mae T, Machines are taking over- are we ready? 33 special issue, Singapore Academy of Law Journal ,2021, 24-49.

encouraging wrong behaviour, or even rendering our most important remedial mechanisms functionally irrelevant. AI will require some fundamental rethinking of what remedies we award and why. That rethinking, in turn, will expose a host of fraught legal and ethical issues that affect not just robots but people too.[102]

The reason I set these deceptively simple and currently relevant questions is to highlight that some form of legal recourse is necessary simply from the constant interaction that AI and robotics will afford us. If not for the mitigation of risk which we shall tackle in the next section, then for the protection of both the autonomous agent and the human and artificial persons involved. The broad categorisation of problems manifests in the following ways: impact on other subjects of the law relationships and an impact on other objects of the law relationships. PLP then allows for a means to mitigate these problems of both human dignity and liability. Furthermore, any type of recognition being sought ought to go beyond symbolism; it needs to achieve practical and measurable implications and this is particularly evident in matters of liability which we shall cover below.

3.3.2 Liability allocation and distribution

Now one of the criticisms that is often flouted in the topic of full personhood to AI is liability.[103] So in this section let us discuss the broad and complex nature of liability regimes.

The broadest categorisation of liability can be considered to civil culpability and criminal culpability. Another paradigm of categorisation would be negligence or fault based liability and strict liability. Several key differences between civil and criminal culpability exist. For instance the standard of proof one must attain in order to show probable cause for assigning liability, the former being on a balance of probabilities and the latter being beyond reasonable doubt. Another being the justifications for ascribing either. The former being compensatory, the latter being punitive. A shared justification however is the deterrent effect on society. The two are indirectly proportional.[104]

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[102] Lemley M and Casey B, Remedies for RobotsAuthor(s), 1311-1396.

[103] Wenderhorst C, Strict Liability for AI and Other Emerging Technologies,Vol 11, 2, JETL, 2020, 150- 151.

[104] Robinson P, The Criminal- Civil Distinction and the Utility of Desert, All Faculty Scholarship, University of Pennsylvania Carey Law School, Vol 76, 201, Boston University Law Review, 202-212.

Criminal liability can be summarised into the state passing judgement on the actions or omissions that are in some moral contravention of society held ideals, of an individual or individuals.[105] Historically, the test for ascribing this culpability has changed. It used to be that only the actions (actus reus) sufficed to prove a completed crime rather than the intentionality behind them. Denoting a strict liability approach to crime. Meaning that defences such as youth and insanity were not recognised. Insanity would get one a conviction and a commitment to a special institution. In time the element of intention (mens rea) emerged and with it came the recognition of the defences of youth and insanity. [106] Both approaches are still in force today when it comes to penalising crimes such as murder or theft or assault on the one hand and traffic and other statutory offences on the other. As Binavince put it, the evolution of criminal law theory shows two conceptualisations of crime based on determining what ethical reference point is fundamental in defining a crime. These could be external conduct and their material consequences or subjective elements that direct that conduct. The problem occurs when trying to reconcile penalisation and punishment for ignorance that one could not have avoided even where honest effort was deployed to do so. [107]

This is particularly evident when it comes to assigning criminal liability to AI systems especially self learning systems. It becomes more complex when considering distributing criminal liability among the self learning system, the backend operator, the frontend operator professional or otherwise and a consumer/victim (in this case a lay person not directly engaged with the AI but who nevertheless has suffered a harm due to its application) if present. [108]

A different set of problems emerge when considering civil liability where the goal is compensation rather than condemnation.[109] Zech notes that the major technological advancements that arise in liability law with regards to AI are three: the learning ability, robotics and interconnectivity. These three factors have made it increasingly difficult to attribute liability. This is because a machine that is able to learn autonomously should

[105] Binavince E, The Ethical Foundations of Criminal Liability, Vol 33, 1, Fordham Law Review, 1964, 3.
[106] Binavince E, The Ethical Foundations of Criminal Liability, 2- 34.
[107] Binavince E, The Ethical Foundations of Criminal Liability, 34- 38.
[108] Khan K, Khan Z and Siddiqua H, Artificial Intelligence and Criminal Culpability, International Conference on Innovative Computing, 2021, 1-7.
[109] Robinson P, The Criminal- Civil Distinction and the Utility of Desert, 202-212.

logically be responsible for the content it consumes. The same to robotics which has taken the risk of harm from a purely digital platform to a physical one with the threat of injury to person and property, and interconnectivity of things where these systems are connected not just with computers but across a range of devices where data flows constantly making it difficult to track individual culpability.[110]

This then means that for public policy consideration, one has to consider if liability law ought to be applied and if so where. Which ideally comes down to regulation - which will be discussed in the following chapter. There is also the matter of what liability regime would apply and in what context. For high risk AI there is a discussion around enforcing strict liability. This is because one of the functions of civil liability law is to internalise risk and this would incentivise developers to ensure a product (in this case referring to the use of AI as a tool) is safe. The consequence then being that users would most likely accept the application of high risk AI. [111] Negligent liability however is more tricky to prove when it comes to AI. This is because in doing so we run the risk of impeding technological advancement and simultaneously cannot place an obligation to avoid what we don't know when it comes to the risks arising from development. [112]

Wenderhost has the same sentiments that the higher risk AI systems are better suited to strict liability albeit a little bit more detailed as to its assignment. He proposes that introducing an element of strict liability in what might otherwise be defect liability would achieve the same purpose without causing much disruption and consuming legislative effort. Yet it would be prudent to have strict AI liability for backend operators and professional frontend operators. [113]

So how does the allocation and distribution of liability justify the adoption of PLP? PLP as we have defined it within this project allows us to create moulds in which liability and risk management could be distributed to include or disclude humanoid and human actors depending on the function of the humanoid system and the role played by the human actors even where the human actors are untraceable.

[110] Zech H, Liability for AI: Public Policy Considerations, published online on ERA Forum,Springer, 2021, 2.
[111] Zech H, Liability for AI: Public Policy Considerations, 6-7.
[112] Zech H, Liability for AI: Public Policy Considerations, 5-6.
[113] Wenderhorst C, Strict Liability for AI and Other Emerging Technologies, 178-179.

3.4 Conclusion

In conclusion, the nature of Electronic Personhood is one that is yet to be laid down in concrete terms legally, leaving it up to scholars to muse on what it entails. However, based on the two interpretations offered, we have taken Electronic Personhood to mean, a new category of legal personality, similar to that of corporate personhood that is granted on the basis of the sophistication and independence of a machine or AI system conferring upon it a set of determined rights and corresponding duties in their fullest legal entitlement.

This understanding is different from our understanding of PLP, which we defined in chapter two. Having understood that the two are fundamentally different, there comes a matter of justification of PLP. This is made on two interconnected arguments. The first argument being that in our everyday or lay interactions with AI, we are also actively engaging in a legal relationship and that these interactions will continue to escalate in complexity. The second argument would be that PLP is justified because of the ease with which it allows us to allocate liability particularly where liability is varied and shared among a series of unidentifiable parties. Thus, we have answered the 'why' question.

4.0 GLOBAL PERSPECTIVES: REGULATION AND RECOGNITION AS IT IS AND WHAT IT COULD BE

4.1 Introduction

"He who has a why to live can bear almost any how" - Friedrich Nietzsche

In answering how we intend to execute Partial Legal Personhood, it is necessary to consider where we are in the journey and how much further we need to go, which is what this chapter intends to cover. This chapter will demonstrate different jurisdictions' status on the recognition and regulation of AI (hereinafter to include SAI even where not explicitly mentioned). It then tackles whether these positions are justifiable in the near future and lastly it considers the potential consequences that Partial Legal Personhood poses should it become a mainstream legal concept.

4.2 Current Global Position

4.2.1 Global Position on the recognition and regulation of AI

Recognition of AI (inclusive of systems employing AI and robots) as legal entities is still murky waters. Looking at the two leading cases of Sofia, a robot that presents as a woman and Shibuya's Mirai, a chatbot who both gained citizenship in Saudi Arabia and Japan respectively, recognition of AI as a person raises a few questions.[114]

In Saudi Arabia, a sharia country, the recognition of Sophia contradicts two broad regimes of law: Citizenship and the laws governing the accepted behaviour of women. One can gain citizenship in Saudi Arabia by birth (in a family where both parents are citizens, where the father is a citizen and the mother is not but paternity is required and where the mother is a citizen and father is not provided that on coming of age, the person is fluent in arabic and has a permanent residence in the country) by marriage and by naturalisation (the

[114] Atabekov A and Yastrebov O, Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, Vol 221, 4, European Research Studies Journal, 2018, 773-782.

requirements being fluent in arabic, residence for over ten years good conduct compliance with the norms of society and a legitimate source of income). Sophia managed to get all these despite not being born, being wed or being naturalised in Saudi Arabia. [115]

Now there is the matter of Sophia being modelled after and presenting as a woman. "She" is a humanoid social AI bot. This then forces us to discuss the role of intentionality as far as human involved engineering is concerned when it comes to developing humanoid technology. The ethical biases and misogynistic values mentioned in the history behind the creation of these bots versus the very real and present misogyny with regards to existing women.[116] The Saudi Arabia legal regime requires that women live by certain religiously established standards. Actions such as having a job, dressing modestly, inheritance etc. are all bypassed and wholly ignored in granting Sophia citizenship.[117] Yet the human women living in that country do not have the privilege to ignore these requirements and limits and the consequences of doing so are severe. [118]

Now both Sophia and Mirai receiving citizenship in "their" respective countries happened in 2017, but that is not the only thing they have in common. Just like Sophia, Mirai receiving citizenship contradicts Japan's residence permit and citizenship regime.

Japan requires one to gain citizenship by birth (within the country but not necessarily by by parents of Japanese nationality) or by naturalisation (where the applicant must have lived in Japan for over 5 years, be above twenty, no affiliation with anti-Japanese groups, have an adequate standard of living and have legal capacity). Mirai meets none of these requirements, yet, Mirai is, for all intents and purposes, a citizen of the nation. [119]

These two cases provide a glimpse into the two places globally that have recognised AI as persons more specifically citizens. Considering Robinson's discussion of constitutional personhood, recognition is a jurisdictional matter just as it is a philosophical one. But it remains within the purview of the courts within that jurisdiction to interpret the rights

[115] Atabekov A and Yastrebov O, Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 775- 776.

[116] Lean P, The extension of Legal Personhood to Artificial Intelligence, 46 Bioética 47 Derecho, University of Barcelona, 2019, 47-66.

[117] Atabekov A and Yastrebov O, Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 775.

[118] Lean P , The extension of Legal Personhood to Artificial Intelligence, 58-61.

[119] Atabekov A and Yastrebov O, Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 776-777.

(and obligations) that the constitution offers its citizens. Even then different courts at different times will reconfigure and redistribute these rights as the circumstance requires it.[120] Such that Sophia and Mirai get to be citizens yet they do not perceivably enjoy (and in the case of Sophia indulge in) the rights and duties of citizenship that other natural persons do.

There is then the matter of regulation of AI. As earlier discussed, recognition involves becoming a subject of the law whereas regulation involves being an object of the law and a single entity can be both depending on the context of the legal relationship. This then means that recognition of AI could be conjunctive or disjunctive with its regulation.[121] In 2023, the Law Library of Congress conducted a survey to map the proposed and enforced legislation on AI around the world. The result of that survey is adapted here. This information better highlights how a majority of the world has taken to regulating or is proposing to regulate AI use. [122]

Jurisdiction	**Citation of Legal Instrument**	**Description of Legal Instrument.**
Argentina	Marco Legal para la Regulación del Desarrollo y uso de la inteligencia Artificial (Proyecto de ley), June 8, 2023, https://perma.cc/PDY6-2JMY. Ley de Regulación y Uso de la Inteligencia Artificial en la Educación (Proyecto de ley), June 8, 2023, https://perma.cc/3958-YQDS.	Establishes the legal framework for research, development, use, and regulation of artificial intelligence in Argentina to protect human rights, privacy rights, and national security. Establishes regulations and guidelines for the development and use of artificial intelligence in education. It applies to all types of educational or education-related organisations/institutions

[120] Robinson Z, Constitutional Personhood, George Washington Law Review, 84, 3, 2016, p 654-661.
[121] Atabekov A and Yastrebov O, Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, p 775-780.
[122] Regulation of Artificial Intelligence Around the World, Law Library of Congress Global Legal Research Directorate, 2023.

	Modificación Ley Nacional 25.467 (Proyecto de ley), Apr. 17, 2023, https://perma.cc/39K5-RSC7.	in the public and private sector. Incorporates art. 3 bis, art. 8 bis, and art. 8 ter to Law 25.467. It establishes principles for the ethical functioning of artificial intelligence (art. 3 bis), stipulates the registration of artificial intelligence systems (art. 8 bis), and incorporates the ability to file complaints with the SETCIP for anyone affected by these systems (art. 8 ter).
	Disposición No. 2 Anexo I, June 2, 2023, [DI-2023-2 APN-SSTI#JGM], Boletin Oficial [B.O.] 35182 (Arg.), https://perma.cc/SX6Z-E3UZ.	Approves the Recommendations for a reliable use of artificial intelligence. (Note: The Recommendations have no legal force).
Belarus	Decree of the President of Belarus No. 8 on Development of the Digital Economy, Dec. 17, 2017, https://perma.cc/CK79-QPU8. (in Russian).	The decree introduced the special legal regime of the Park of High Technologies (PHT) with the right to carry out activity in the sphere of artificial intelligence. (Id. art. 1.) PHT was created to attract more legal residents who are engaged in artificial intelligence and the training of cars.
	Resolution of Council of Ministers of Belarus No. 438 on the List of State Programs of Scientific Research for 2021-2025, July 28, 2020, https://perma.cc/23V9-5KFA (in Russian).	The resolution establishes the objective of achieving global benchmarks in digital transformation within the country, particularly in the fields of economy, robotics and artificial intelligence, public administration, and

		the utilisation of digital technologies for scientific research.
Belgium	Proposition de Loi modifiant la loi relative à la publicité de l'administration du 11 avril 1994 afin d'introduire une plus grande transparence dans l'usage des algorithmes par les administrations, 1904/001, DOC 55, Apr. 6, 2021, https://perma.cc/HMX9-CVTS.	The proposed law aims to improve transparency in the use of AI systems by public administrations, particularly when they are used to make administrative decisions.
Belgium	Proposition de Loi modifiant la loi relative à la publicité de l'administration du 11 avril 1994 afin d'introduire une plus grande transparence dans l'usage des algorithmes par les administrations, 1904/001, DOC 55, Apr. 6, 2021, https://perma.cc/HMX9-CVTS.	The proposed law aims to improve transparency in the use of AI systems by public administrations, particularly when they are used to make administrative decisions.
Brazil	Câmara dos Deputados, PL 21/2020, https://perma.cc/Y7BE-KQNS. Senado Federal, PL 2338/2023, https://perma.cc/3BHV-FQBN.	Establishes foundations, principles and guidelines for the development and application of artificial intelligence in Brazil. Provides for the use of artificial intelligence.
Canada	Bill C-27 An Act to Enact the Consumer Privacy Protection Act, the Personal Information and Data Protection Tribunal Act, and	The proposed legislation AIDA would impose certain obligations concerning the design, development, and use of AI systems and their

	the Artificial Intelligence and Data Act (AIDA), and to Make Consequential and Related Amendments to Other Acts, https://perma.cc/J2BZ-5EX4.	associated harms, including requiring an assessment of whether a system is high impact, record keeping, and publication of certain information on AI systems, among other obligations.
Chile	Boletín 15869-19 (Proyecto de ley), Apr. 24, 2023, https://perma.cc/E5PP-792M. Boletín 15935-07 (Proyecto de ley), May 15, 2023, https://perma.cc/TLQ6-3A7R. Boletín 16021-07 (Proyecto de ley), June 13, 2023, https://perma.cc/G8UH-T44R. Boletín 16112-07 (Proyecto de ley), July 17, 2023, https://perma.cc/EA9X-WFGD.	Establishes a legal framework for the development, commercialization, distribution, and use of artificial intelligence to protect fundamental rights in Chile. Replaces art. 468 of the Chilean Criminal Code to include the use of artificial intelligence in frauds as a crime. Incorporates para. 23 in art. 12 of the Chilean Criminal Code. It specifies that the use of artificial intelligence to commit a crime is an aggravating circumstance. Substitutes art. 214 of the Chilean Criminal Code. It modifies the crime of identity theft to include the context of artificial intelligence.
China	Cyberspace Administration of China, Interim Measures for the Management of Generative AI Services (July 10, 2023), https://perma.cc/RV8G 9RRE. (in Chinese), https://perma.cc/7THZ-FF	The measures regulate the use of generative AI technology to provide services that generate any text, image, audio, video, or other such content to the public within mainland China. “Generative AI

	43. (unofficial English translation). 2023 Legislative Work Plan of the State Council (May 31, 2023), https://perma.cc/H9XX-J7SY (in Chinese).	technology" refers to "models and related technology that have the ability to generate text, image, audio, videos, or other such content." China's State Council is drafting a comprehensive national AI Law, a copy of which has not been released.
Colombia	Proyecto de Ley No. 059, Aug. 1, 2023, https://perma.cc/JZ4Y-KY2F.	Establishes the guidelines of public policy for the development, use, and implementation of artificial intelligence.
Costa Rica	Proyecto de Ley No. 23.771, May 30, 2023, https://perma.cc/PUJ2-K86K.	Regulates the development, implementation, and use of artificial intelligence in Costa Rica.
Egypt	Prime Ministerial Resolution No. 2889 of 2019 on the establishment of the National Council of the Artificial Intelligence, al-Jarīdah al-Rasmīyah (Official Gazette), vol. 47 duplicate, 24 November 2019, https://perma.cc/3ZQW-LTR6.	The resolution defines the mission, objectives, functions and structure of the National Council of Artificial Intelligence. The council has the power to issue guidelines on the usage of artificial intelligence and prohibitions related to such usage.
Estonia	Code of Civil Procedure § 4892 (Passed Apr. 20, 2005, RT I 2005, 26, 197, https://perma.cc/3ND6-HM	These provisions allow for the validity and acceptance in civil procedures of machine-generated

	ZX. (in Estonian).	documents related to ordering and processing payments if these documents meet the requirements for standard e-documents and can be verified in an automated manner.
European Union	General Data Protection Regulation (GDPR), art. 22, 2016 O.J. (L 119) 1, https://perma.cc/7Y47-L7XX.	Article 22 of the GDPR specifically addresses profiling and automated individual decision-making. It prohibits decisions based solely on automated processing, including profiling, which produce legal effects concerning the data subject or similarly significantly affect him or her, with exceptions. "Solely" means that the decision is totally automated and there is no human review. "Legal or similarly significant effects" means that the decision affects a person's legal status or rights or it is something that has an equivalent impact on an individual's circumstances, behaviour, choices, or leads to exclusion/discrimination of the individual. Examples are social benefits, voting, online, credit applications, or university admissions.
	Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain	The proposed AI Act addresses the risks posed by AI systems to the safety or fundamental rights of citizens by following a risk based approach ranging from complete prohibition

	Union Legislative Acts, COM (2021) 206 final (Apr. 21, 2021), https://perma.cc/RWT9-9D97. Proposal for a Directive of the European Parliament and of the Council on Adapting Non-contractual Civil Liability Rules to Artificial Intelligence (AI Liability Directive), COM (2022) 496 final (Sept. 28, 2022), https://perma.cc/SR7R-SLKJ.	or mandatory requirements for certain high-risk AI systems to transparency rules or voluntary compliance with the rules for low-risk AI systems. The AI Act as an EU regulation would be directly applicable in the EU member states once it enters into force, which is expected by the end of 2023. The proposed AI Liability Directive would establish uniform rules for certain aspects of non contractual civil liability for damage caused by AI systems, where such claims are brought under fault based liability regimes. Among other things, it would regulate the burden of proof and disclosure of evidence, and it would create rebuttable presumptions of noncompliance and causation. As a directive, the AI Liability Directive would have to be transposed into national law by the EU Member States.
Finland	Chapter 8b of the Administrative Law (Hallintolaki (6.6.2003/434), https://perma.cc/T3JZ-6GQ7. (in Finnish); Förvaltningslag, https://perma.cc/ERF6-PRX2. (in Swedish) (automated decision	The law allows government agencies to use automated decision making. In addition, EU law applies. For AI and the EU

	making amendment entered into force in 2023: Hallituksen esitys (HE) 145/2022 vp, https://perma.cc/HW9P-5WPH. (in Finnish)).	
Greece	Law 4961/2022 on Emerging Information and Communication Technologies, Strengthening Digital Governance, and Other Provisions, E.K.E.D. 2022, A:146, as amended by Law 5039/2023, E.K.E.D. 2023, A:83, https://perma.cc/R4GT-FCJQ. (in Greek).	Chapter B of this law incorporates provisions requiring public sector bodies using AI systems for making decisions to undertake an algorithmic impact assessment before using the system and implement transparency-related measures. Private actors that use AI systems for making employment-related decisions are also subject to transparency requirements. The law establishes an inter ministerial Steering Committee on AI and a supervisory committee for national strategy for the development of AI under the Ministry of Digital Governance to act as an executive body for the Steering Committee.
Hungary	2014 Law LXXVI on Scientific Research, Development and Innovation, art. 4g, https://perma.cc/QW7L-KTWD (in Hungarian)	Requires the government to take measures to create open scientific digital data files and data warehouses to complete research, development, and innovation tasks of national economic importance, with particular regard to dissemination of artificial intelligence.

	Government Decree 451/2016 on Detailed Rules for Electronic Administration, arts. 7/B(4), 68/B(k),(l),(m), & 134/I-L, https://perma.cc/Z64T-D996. (in Hungarian).	Regulates the usage of AI-supported services within electronic administrative processes, including converting text to speech, speech to text, and using an AI communication assistant. The involvement of human interaction, the validation of electronic
	Hungary Data Protection Authority, Decision on Application of the AI-Based Speech-Signal Processing Technology, Reported Apr. 7, 2022, https://perma.cc/D2JK-4G4J.	The National data protection agency of Hungary (NAIH) imposed a fine equal to EUR 676,000 on a bank due to deficiencies in its AI based evaluation of customer service call recordings. This evaluation encompassed aspects such as gauging the speaker's emotional condition and other traits. The bank claimed that it used this information to avert grievances, assess work quality, and enhance the productivity of their call-handling personnel. The NAIH stated that a "freely and actively given informed consent" is required for data processing operations.
Iceland	Electronic Communications Office of Iceland Act 12 § (Lög um Fjarskiptastofnun (2021 nr. 75 25. júní), https://perma.cc/C7HC-TXP7 (in Icelandic).	Specifies the role of the Electronic Communications Office of Iceland in relation to artificial intelligence, specifically listing that it must monitor the development of and develop

		the technical abilities to face challenges related to artificial intelligence.
Ireland	European Union (Open Data and Re-Use of Public Sector Information) Regulations 2021, SI 376/2021, https://perma.cc/M9UM-UBDD. Statistics (Information and Communication Technologies Survey) Order 2021, SI 94/2021, https://perma.cc/S98H-FT24.	The European Union (Open Data and Re-Use of Public Sector Information) Regulations 2021 gives effect to Directive (EU) 2019/1024 and aims to help stimulate digital innovation, particularly with regard to AI The Statistics (Information and Communication Technologies Survey) Order 2021 gives effect to article 6(2) of Regulation (EU) 2019/2152 and requires undertakings covered by the order to respond to a survey conducted by the Central Statistics Office and include information about the general use of AI, along with other topics, in relation to the years 2021-2025.
Israel	Regulatory Policy and Ethics in the Field of Artificial Intelligence in Israel, Ministry of Innovation, Science and Technology (Oct. 30, 2022), https://perma.cc/95JR-PZYL.	Former Minister of Innovation, Science and Technology published draft guidelines for public comments on regulation and ethical policies for the development and use of artificial intelligence. The main policy principles proposed include the use of "soft" regulation tools instead of legislation of a broad framework, the adoption of ethical principles similar to what is accepted around the world,

		the formulation of a risk management tool for the regulator, and the establishment of a dedicated knowledge centre within the government.
Kazakhstan	Decree of the President No. 674 on Approval of the Concept for a Legal Policy of the RK until 2030, Oct. 15, 2021, https://perma.cc/V34F-GVW3. (in Russian).	Chapter 4 introduced the public policy guideline for the development and implementation of innovative digital technologies. Section 4.13 requires improvements in the regulation of the field of information and communication technologies, digital assets, machine learning and artificial intelligence, industrial automation, and information security. (Id. ch. 4, sec. 4.13.)
Kyrgyzstan	The Draft Digital Code of the Kyrgyz Republic, submitted for public discussion on Aug. 5, 2023, Ministry of Digital Development of the Kyrgyz Republic, https://perma.cc/23QY-WNNU. (in Russian).	The Draft Code aims at creating a unified regulatory system for digital technologies. Digital assets, artificial intelligence, robotics, and blockchain are listed in the code as modern innovative solutions. Chapter 23 of the draft code specifies the principles of design, development, and application of artificial intelligence systems; provides for limitations and responsibilities; and establishes requirements for designating AI models as high-risk systems. (Id. arts. 187-194.) The code combines provisions presently found in all pieces

		of technology related legislation.
Lithuania	Law No. VIII – 2043 on Road Traffic Safety (Passed Dec. 10, 2000, arts. 2, 10, 13, 20, & 25, https://perma.cc/VEQ6-G82K.	The law permits the use of self-driving cars in public traffic without human intervention. Direct or remote control of autonomous cars by a person is allowed if such a possibility has been foreseen by the car manufacturer.
Macau	Law No. 1/2021, Tax Benefits Regime for Companies Engaged in Scientific and Technological Innovation Activities (Feb. 1, 2021) art. 2, https://perma.cc/M4VB-D6V4. (in Chinese)	Providing tax benefits to companies that engage in scientific and technological innovation activities, particularly in areas including next-generation information technology and AI.
Mauritius	Financial Services (Robotic and Artificial Intelligence Enabled Advisory Services) Rules 2021 (June 12, 2021), https://perma.cc/B6WV-X8ZD.	Section 2 defines the term robotic and artificial intelligence enabled advisory services (RAIEAS) as "the provision of digital and personalised advisory services through a computer program and/or artificial intelligence enabled algorithms with limited human intervention." Section 4 requires that any person who engages in RAIEAS first obtain a RAIEAS licence from the Financial Services Commission. Section 5 mandates that a licensee must always: (a) have its principal bank account in Mauritius;the

		carrying out of its Robotic and Artificial Intelligence Enabled Advisory Services in Mauritius; (c) implement adequate internal controls, risk management (including cyber risk management), as well as, governance policies and procedures; (d) put in place a business continuity and disaster recovery plan; (e) preserve the integrity and privacy of its clients' information in conformity with the applicable Data Protection Laws of Mauritius; (f) be managed by a board of directors consisting of a minimum of three directors, one of whom shall be an independent director and a resident of Mauritius; (g) employ an adequate number of officers with adequate competence, experience and proficiency, and commensurate with the size, nature and complexity of its services; and (h) have in place such code of conduct and ethics which shall be binding on its officers in relation to the provision of its services. Sections 6 and 7 set the minimum amounts of capital and indemnity insurance a licensee must maintain.
Mexico	Iniciativa con Proyecto de Decreto por el Que Se Expide la Ley para la Regulación Ética de la	This bill proposes to establish public policy guidelines for the ethical regulation of artificial

	Inteligencia Artificial y la Robótica, May 24, 2023, https://perma.cc/PY6J-QM2Z.	intelligence and robotics and to enact a regulatory framework to achieve this goal.
Norway	National Insurance Act § 21-11 a (Folketrygdloven), https://perma.cc/69YC-MFDC. (in Norwegian). Act amending the Health Personnel Act and the Patient Journal Act (use of health information to better coordinate and use of artificial intelligence in the health and care service) (Lov om endringer i helsepersonelloven og pasientjournalloven (bruk av helseopplysninger for å lette samarbeid, læring og bruk av kunstig intelligens i helse- og omsorgstjenesten mv), https://perma.cc/NE27-JPFR (in Norwegian).	Provides that the government, through issued regulations, may regulate automated decision making in relation to national health insurance. Provides legal basis for use of artificial intelligence (kunstig intelligense) in the health and care service.
Panama	Proyecto de Ley Que Regula la Inteligencia Artificial en la Republica, July 6, 2023, https://perma.cc/BVP8-QFQ6.	This bill proposes guidelines on the development and application of artificial intelligence in order to foster innovation and protect personal privacy rights.
Peru	Ley No. 31814, July 5, 2023, https://perma.cc/Y88S-HY7X.	Promotes the use of artificial intelligence in the framework of the national process of digital transformation. It aims to

		protect human rights and promote economic and social development in the country.
Philippines	House Bill No. 7396, proposing to enact an Act Promoting the Development and Regulation of Artificial Intelligence in The Philippines, Mar. 1, 2023, https://perma.cc/6SSP-24GS.	The bill "outlines the principles of responsible AI development, including transparency, fairness, accountability, and privacy . . . [and] requires organisations that develop or deploy AI technologies to adhere to these principles and to conduct risk assessments and impact analyses before deploying their technologies." It "includes provisions to protect the privacy and personal data of individuals, to prevent discrimination and bias in AI technologies, and to ensure that AI systems are safe and secure. . . . To undertake the foregoing tasks, duties and responsibilities, the bill provides for the establishment of an agency to be known as the Artificial Intelligence Development Authority (AIDA) which will be responsible for the development and implementation of a national AI strategy." (Id. explanatory note.)
Poland	Law 317/2018 of Jan. 11, 2018, on Electromobility and Alternative Fuels, art. 65K, https://perma.cc/W54G-3LNE. (in Polish).	The law outlines the concept of an autonomous vehicle as a vehicle equipped with systems that manage its movement and allow it to operate without

		the need for driver involvement. It permits research on autonomous vehicles for transportation, provided that safety requirements are met and necessary permits are acquired.
Portugal	Lei No. 27/2021, de 17 de Maio, art. 9(1), https://perma.cc/9865-SCJJ.	The use of artificial intelligence must be guided by respect for fundamental rights, guaranteeing a fair balance between the principles of explicabilidade (clarity), security, transparency, and responsibility, taking into account the circumstances of each specific case and establishing procedures aimed at avoiding any prejudices and forms of discrimination
Qatar	Cabinet Resolution No. 10 of 2021 on the establishment of the National Commission for Artificial Intelligence, al-Jarīdah al-Rasmīyah (Official Gazette), vol. 11, Sept. 14, 2021, https://perma.cc/5F9S-Q5PY.	The resolution defines the mission, objectives, functions and structure of the National Commission for Artificial Intelligence. The commission has the power to issue guidelines on the usage of artificial intelligence and prohibitions related to such usage.
Russian Federation	Decree of the President No. 490, on the Development of Artificial Intelligence, Oct. 10, 2019, https://perma.cc/5HMW-GRXX. (in Russian).	Prescribes measures for accelerated development of AI, conducting scientific research in the field of AI, increasing the availability of information and computing resources for users, and improving personnel

		training in this area.
	Federal Law No. 123-FZ on Conducting an Experiment to Establish Special Regulation in Order to Create the Necessary Conditions for the Development and Implementation of Artificial Intelligence Technologies in the City of Moscow, and amending articles 6 and 10 of the Federal Law on Personal Data, adopted on Apr. 14, 2020, https://perma.cc/FK8R-4MCA. (in Russian).	The law contains definitions for AI. (Id. art.2, para.1(1).) It provides an experimental legal regime to develop AI projects in Moscow and, subsequently, throughout Russia, and it introduces a special legal framework for "digital sandboxes" in Moscow. (Id. art. 2, para. 1(1).)
	Federal Law No. 258-FZ on Experimental Legal Regimes in the Sphere of Digital Innovations in the Russian Federation, adopted on July 16, 2020, https://perma.cc/34MC-M9DN. (in Russian).	The law regulates the establishment, modification, and termination of an experimental legal regime in the field of digital innovations (a "regulatory sandbox") and creates a procedural mechanism for establishing, changing, cancelling, and monitoring sandboxes (id. art. 2), to lessen regulatory limitations on developers of digital innovations during the defined experimental period for solution applications. (Id. art. 3.) Specified areas for development, approval, and implementation of digital innovations include medical activities; transportation; agriculture; financial markets; online sale of goods, works and services;

		architectural and building design and construction; rendering of governmental and municipal services; and industrial production. (Id. art. 1, para. 2(1 9).)
	Federal Law No. 331-FZ on Amendments to Certain Legislative Acts of the Russian Federation in Connection with the Adoption of the Federal Law on Experimental Legal Regimes in the Sphere of Digital Innovations, adopted on June 16, 2021, https://perma.cc/6YGF-GQ7S. (in Russian).	These amendments introduced a number of exceptions to the legislation governing communications, the use of personal data, and certain digital innovative projects.
Saudi Arabia	Cabinet Resolution No. 195, issued on 15/3/1444 Hijri corresponding to October 11, 2022, on the establishment of the Saudi Authority for Information and Artificial Intelligence, https://perma.cc/TA3F-DAYQ.	The resolution defines the mission, objectives, functions and structure of the Saudi Authority for Information and Artificial Intelligence. The authority has the power to issue guidelines on the usage of artificial intelligence and prohibitions related to such usage.
Serbia	Decision of the Government of Serbia on Guidelines for the Development, Implementation, and Use of Reliable and Responsible AI, Mar. 23, 2023, Sl. Glasnik RS, br. 23/2023, https://perma.cc/7GLU-88PT. (in Serbian).	The guidelines set out a framework for activities within the AI ecosystem. The document outlines the general principles and conditions for harmonising Serbia's legislative framework with the EU. It provides for the creation of "reliable and responsible" AI, and sets rules that all individuals and legal entities developing,

		applying or using AI systems must observe.
Slovak Republic	Constitutional Court of the Slovak Republic PL. ÚS 25 / 2019-117 (eKasa case) in David Hardwick, "Error 404-Match Not Found," Tax Enforcement and Law Enforcement in the EU Artificial Intelligence Act, in 1 Eucrim 56 (2023), https://perma.cc/3WX2-UPJ8.	The Constitutional Court ruled that the use of machine learning to enhance surveillance had reached a point where it necessitated a dedicated structure and customised measures to counteract the potential dangers of abuse.
South Korea	Ten bills are pending at the National Assembly, https://perma.cc/RPD4-VD5W. The most recent one is the Artificial Intelligence Responsibility and Regulation Bill, Bill No. 2123709 (Aug. 8, 2023), https://perma.cc/MH5R-5RGQ. (in Korean).	The most recent bill defines "prohibited artificial intelligence" and allows the development and use of low-risk artificial intelligence with conditions.
Spain	Ley 15/2022, de 12 de julio, integral para la igualdad de trato y la no discriminación, art. 23, https://perma.cc/78J8-WBMV.	Article 23 relates to the use of AI and automated decision-making mechanisms. It refers to the need for public administrations to implement mechanisms so that algorithms take into account bias minimization criteria, transparency, and accountability, and requires public administrations and companies to promote the use of ethical, reliable, and respectful AI with fundamental rights, especially following the recommendations of the EU in this regard.

Sweden	28 § Administrative Act (Förvaltningslagen (2017:900), https://perma.cc/QHZ4-L8JL. (in Swedish).	The law allows government agency staff to use automated decision making. In addition, EU law applies.
Thailand	The text of the Draft Artificial Intelligence Innovation Promotion Act is not available. See Radeemada Mungkarndee & Dharin Nantananate, Thailand's Draft Laws for the Regulation and Promotion of AI Products and Services, LEXEL (June 22, 2023), https://lexel.co.th/thailands-draft-laws-for-the-regulation-and-promotion-of-ai-products-and-services/.	The draft legislation would establish an AI sandbox, promote data sharing, and establish an AI standard certification system.
Taiwan	Statute for Industrial Innovation (as amended Jan. 19, 2023) art. 10-1, https://perma.cc/W6LT-QU4B. (in Chinese), https://perma.cc/F8RL-LY5N. (English translation); Act for the Development of Biotech and Pharmaceutical Industry (as amended Dec. 30, 2021) art. 4, https://perma.cc/6QFC-5CVC (in Chinese), https://perma.cc/27MC-GWPJ. (English translation). Draft Basic AI Act (proposed by Hsu Yu-jen and 20 other Legislative Yuan members, May 15, 2019), https://perma.cc/V3E5-YUFW. (in Chinese).	Regulations provide incentives to encourage and promote high tech industries, which include AI as one of the technologies. Various drafts of the Basic AI Act have been proposed by members of Legislative Yuan and other parties. The government is considering its own draft Basic AI Act, which has not been

		released. (Executive Yuan Announces Artificial Intelligence Plan (June 4, 2023), https://perma.cc/HA2G-6NSJ.)
United Arab Emirates (UAE)	Decree No. 32 of 2020, issued by the head of the Judicial Department of Abu Dhabi, concerning a guide to use artificial intelligence in legal services and judicial operations, al-Jarīdah al-Rasmīyah (Official Gazette), vol. 11, Nov. 30, 2020, https://perma.cc/2VB9-KM6D. Decree promulgating Federal Law No. 25 of 2018 on allowing futuristic projects, issued on September 23, 2018, posted on the official website of the UAE Cabinet, https://perma.cc/99K6-8UQD.	The decree allows the usage of artificial intelligence in legal translation, research, arbitration, and making necessary decisions in judicial proceedings The law allows the UAE Cabinet to grant permission to foreign and domestic corporations using the technology of artificial intelligence to operate in the country.
United Kingdom	National Security and Investment Act 2021, c. 25, https://perma.cc/9VHY-B8UB. and the National Security and Investment Act 2021 (Notifiable Acquisition) (Specification of Qualifying Entities) Regulations 2021, SI 2021/1264, https://perma.cc/3TPH-Y6YK.	The National Security and Investment Act 2021 provides the government with the authority to intervene in acquisitions that could harm the national security of the UK, including companies that develop AI.

	Online Safety Bill, HL Bill 164, https://perma.cc/ZU5J-UPMC. Artificial Intelligence (Regulation and Workers' Rights), Bill 309, 732 Parl. Deb. (5th ser.) (HC) 2023, https://perma.cc/BA46-E3QJ.	The Online Safety Bill aims to regulate proactive technologies, which includes AI. The bill places a duty of care on a number of platforms to protect all users from illegal content and keep children safe online. To comply with the duties, the companies must conduct risk assessments identifying risks and explain how the risks are mitigated, which can be through human moderators or AI tools. The Artificial Intelligence (Regulation and Workers' Rights) Bill was introduced as a private members' bill, which usually serves to highlight a topic and typically does not become a law. The proposed bill aims to regulate AI in the workplace, particularly with regard to worker and trade union rights.
Uzbekistan	Decree of the President on Measures to Create Conditions for the Accelerated Introduction of Artificial Intelligence Technologies, No. PP-4996, Feb. 17, 2021, https://perma.cc/25P8-D832 (in Russian).	The decree prescribes measures for all national science and research organisations, higher educational institutions, and organisations in the field of information technology to develop innovative products for management and automation of production processes based on artificial intelligence technologies, models, algorithms, and

		software. It provides for the creation of an open data portal and digital data platform.
	Resolution of the Cabinet of Ministers No. 475, on the Organization of the Research Institute for the Development of Digital Technologies and Artificial Intelligence, July 31, 2021, https://perma.cc/PF38-H7X3 (in Uzbek).	The resolution provides for the carrying out of fundamental and applied scientific research in the field of artificial intelligence and the formation of a scientific ecosystem for the development of digital technologies.
	Decree of the President on Measures to Implement a Special Regime for the Application of Artificial Intelligence Technologies, No. PP-5234, Aug. 26, 2021, https://perma.cc/Q24F-ZKNR (in Russian).	The decree introduces a special regime that provides for the necessary organisational and legal conditions for legal entities and scientific organisations engaged in activities related to the conduct of experimental work based on artificial intelligence technologies.

Table 4.2.1a *Jurisdictional table on National Legislation on the regulation of AI. Sourced and adapted from the comparative Study of Regulation of Artificial Intelligence Around the World, Law Library of Congress, 2023.*

The same was extended to international organisations as well and is highlighted below.

International Organisation	Citation of Legal Instrument	Description of Legal Instrument
Council of Europe	Consolidated Text of the Convention for the Protection of Individuals with Regard to Automatic Processing of Personal Data,	Convention No. 108, which entered into force in 1985, was the first international treaty on personal data protection. A 2018

	ETS No. 108, art. 9, para. 1(a), https://perma.cc/B828-4W7B. Committee on Artificial Intelligence [CAI], Revised Zero Draft [Framework] Convention on Artificial Intelligence, Human Rights, Democracy, and the Rule of Law (Jan. 6, 2023), https://perma.cc/PS8F-9M5L	amendment, which has not yet entered into force, modernised the convention and established, among other things, the right of an individual not to be subject to a decision significantly affecting him or her based solely on an automated processing of data without having his or her views taken into consideration. The proposed framework convention would provide a common framework for the design, development, and application of AI systems throughout their life cycle, regardless of whether these activities are undertaken by public or private actors, with the exclusion of national defence. It would be based on the Council of Europe's standards on human rights, democracy, and the rule of law. Similar to the EU's proposed AI Act, it would adopt a risk-based approach to AI systems, but would not establish redlines for certain AI uses. It would be open for accession by nonmembers of the Council of Europe after entry into force.
NATO	NATO, Summary of the Artificial Intelligence Strategy (Oct. 22, 2021), https://perma.cc/3GRM-7P6X.	Promulgated in October 2021, the strategy adopts six principles of responsible use: lawfulness, responsibility and accountability, explainability and

	NATO's Data and Artificial Intelligence Review Board, NATO (Oct. 17, 2022), https://perma.cc/Y3H5-3QFJ. NATO Starts Work on Artificial Intelligence Certification Standard, NATO (Feb 7, 2023), https://perma.cc/RW89-PXNL.	traceability, reliability, governability, and bias mitigation. Summary of the Establishment of the Data and Artificial Intelligence Review Board (DARB). This board is responsible for the implementation of the six principles of responsible use. The artificial intelligence standard for NATO is due to be completed by the end of 2023.
Organisation for Economic Co operation and Development (OECD)	Recommendation of the Council on Artificial Intelligence, OECD, https://perma.cc/PRU9-XL89.	Promulgated in 2019, it provides five principles on responsible stewardship of AI and five recommendations for implementation.
United Nations	U.N. Secretary General, Roadmap for Digital Cooperation: Implementation of the Recommendations of the High-Level Panel on Digital Cooperation, U.N. Doc. A/74/821 (May 29, 2020), https://perma.cc/U889-LDYZ. U.N., The Age of Digital Interdependence: Report of the UN Secretary-General's	"The present report serves to respond to and builds upon the report of the High-level Panel on Digital Cooperation. The current situation of digital cooperation is assessed, including in terms of the ongoing coronavirus disease (COVID-19) pandemic; urgent gaps and challenges are highlighted; and actions to strengthen global digital cooperation are set out." Id. Includes among "priority actions" audits and monitoring schemes to

	High-Level Panel on Digital Cooperation (June 2019), https://perma.cc/LDN5-UUAH.	ensure that AI complies with engineering and ethical standards.
Chief Executives Board (United Nations)	U.N. Chief Executives Board for Coordination, Principles for the Ethical Use of Artificial Intelligence in the United Nations System, U.N. Doc. CEB/2022/2/Add.1, https://perma.cc/V67Z-4CM6.	Adopted in October 2022, it implements 10 principles "grounded in ethics and human rights" to guide the use of AI within the entire United Nations system, https://perma.cc/BQ2J-V572.
International Telecommunication Union (ITU) (United Nations)	ITU, United Nations Activities on Artificial Intelligence (AI) (2022), https://perma.cc/2MYG-QG3B.	Overview of 2022 projects and initiatives taken on by the United Nations and other stakeholders to ensure AI is used for the betterment of humanity. Presented March 2023. More information is available at AI for Good, ITU, https://perma.cc/J6Y5-DEVE.
UNESCO (United Nations)	UNESCO, Recommendation on the Ethics of Artificial Intelligence (2022), https://perma.cc/6Q26-U2G8.	Adopted by UNESCO's General Conference in November 2021, it covers a selection of 11 areas for policy action and includes monitoring and evaluation standards.

Table 4.2.1b *International Organisation table on Legal Instruments on the regulation of AI. Sourced and adapted from the comparative Study of Regulation of Artificial Intelligence Around the World, Law Library of Congress, 2023.*

The findings of the study were that regulatory regimes of AI could be grouped into two: those that specifically refer to AI and those that refer to AI in passing. For instance countries that had laws (proposed or effected) that specifically referred to AI included Belarus, China, Denmark, Egypt, Estonia, Finland, Greece, Hungary, Iceland, Kazakhstan,

Kyrgyzstan, Lithuania, Macau, Mauritius, Norway, Peru, Poland, Portugal, Qatar, the Republic of Ireland, the Russian Federation, Saudi Arabia, Serbia, the Slovak Republic, Spain, Sweden, the UAE, and Uzbekistan. [123]

Those that had legislation referring to AI in passing included: Belgium, Brazil, Canada, Chile, Colombia, Costa Rica, Israel, Mexico, Panama, the Philippines, South Korea and Thailand. Countries like Argentina and the UK managed to have both.[124]

The legislation itself could further specify AI applications. For instance, legislation on automated decision making, illegal online text and image generation, speech recognition and processing and payment services have already been enacted in countries like China and the UK and they have been proposed in Kyrgyzstan. Equally some countries have enacted legislation that requires licensing of certain AI applications. This is the case in Mauritius and Greece and had been proposed via a bill in Canada. [125]

One such application is automated decision making. Other countries enacted legislation that requires automated decision making on behalf of public bodies to impose measures that to minimise or prevent bias and ensure transparency. Others included impact assessment as part of the registration process for artificial intelligence. This is particularly true in Greece, Finland, Norway, Spain and Sweden. Belgium had these measures proposed as well. [126]

Interestingly, with regards to AI application, the UK has laws in place that authorise the government to intervene in the acquisition of companies developing AI whose applications could harm national security. Macau went as far as giving tax benefits to companies engaged in the research and development of AI.[127] All this to show that what Pasquale finds that law should help direct and not just constrain the development of artificial intelligence. Part of this is the nature and manner in which regulatory frameworks are developed.[128]

And what he finds is particularly true for the UK. Beyond its National Security and Investment Act of 2021, the UK has taken regulatory steps to ensure it is the leading

[123] Regulation of Artificial Intelligence Around the World, 2-3.
[124] Regulation of Artificial Intelligence Around the World, 2-3.
[125] Regulation of Artificial Intelligence Around the World, 2-3.
[126] Regulation of Artificial Intelligence Around the World, 2-3.
[127] Regulation of Artificial Intelligence Around the World, Law Library of Congress Global Legal Research Directorate, 2023, p 2-3.
[128] Pasquale F, Data-Informed Duties in AI Development, Columbia Law Review, Vol 119, No. 7, 2019, p 1917-1940.

country in AI outside of the United States. Some of these steps include: a more comprehensive and broad statutory definition of AI away from the proposed definition of the EC in the proposed AI act, the creation of several public bodies to provide oversight on the development and utilisation of AI, support via investment as per the "Build Back Better: Our plan for growth" initiative and a comprehensive AI strategy via the National AI Strategy of 2021.[129]

Having looked at the laws as they are, we can move on to discuss what partial legal personhood could look like within the existing regimes.

4.3 Working in the Spectrum

4.3.1 Adoption and Adaptation

We continue to make the argument that PLP need not overhaul or erase the existing regimes. Rather via adoption and adaptation, PLP could potentially flesh out some of these laws.

a. Adoption

Take for instance, the EU's proposal on working towards granting more sophisticated AI full legal personhood[130]. PLP becomes the bridging gap towards that reality. Similarly, looking at countries like Norway, Panama and the Philippines where the context of application of AI has been set out, PLP has the potential to provide recourse in the event of harm.

Even where context hasn't been set out like Qatar and Taiwan, PLP in the very least could provide a guide as to better refine how AI is developed within those countries.

[129] Free R, Kerrigan C, Zapisetskaya B, AI, Machine Learning, Big Data Laws and Regulations 2023, United Kingdom, from CMS, for Global Legal Insights, 2023, https://www.globallegalinsights.com/practice-areas/ai-machine-learning-and-big-data-laws-and-regulations/united-kingdom on Jan 2, 2024 .

[130] Para 59 (f), European Parliament Resolution of 16th February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics.

But the best articulation for sufficient cause comes from the Slovak Republic, where the courts have found that the use of AI has gotten to a point where there needs to be a form of recourse, from the previous chapters PLP could be the tool that facilitates this. Calo notes that in cases like Samsung v White and Comptroller v Family Entertainment that it matters to the case that the subject matter is a robot because that forces us to look at intentionality and the concept that if we do not find a solution soon we will have victims without perpetrators.[131] In Samsung v White[132], a robot ad run by Samsung which included the robot in dress and garb in the likeness of ms White raised several IP questions. While in the Chuck E Cheese case[133], it was a matter of tax inclusion on the performance of the animatronics within the company's establishments. Both of these cases and countless others if you include all the cases that involve robots killing people, push us to grapple with the idea of AI and personality. PLP as defined in this project offers us a way out.

b. Adaptation

Even in the jurisdictions where the law is particularly progressive like Canada and the United Kingdom, PLP substantiates the manner in which liability would be assigned distributed risks that the law has set out to mitigate.

The same applies to the regulatory sandbox regimes like Thailand, where an AI application goes through a screening process before it is released into the public domain. PLP could potentially be used as a screening tool to consider the manner in which AI would interact in a legal reality.

4.3.2 Long term thinking and short term goals

It is my finding that a majority of the current laws around AI involve primarily monitoring in some capacity. The laws are designed to cater to primary stages of AI meaning the inception and use of the intelligences rather than the secondary stages which would cover the risks and liabilities. Again worth noting is that the legislation also seems to tackle weak AI. For short term benefits this is a good place to start, as we tackle the legal problem of

[131] Calo R, Singularity: AI and the Law, Seattle University Law Review, Vol 41, 4, 2018, p 1123-1138.
[132] White v. Samsung Elecs. Am., Inc.,(1993), Court of Appeals Ninth Circuit.
[133] Comptroller v. Family Entertainment, (1987), Court of Special Appeals Maryland.

ethical biases and gaps when it comes to formulating AI but we must consider what our long term goals with AI are.

As Mohammed and Sajith put it, the problems that AI faces when it comes to regulation are autonomy and control. AI being programmed to learn and adapt independently from the set of facts and instructions given by its programmer denotes "its" autonomy and the responsibility of when such decisions result in harm, whether that harm was foreseen or predictable denotes liability. The question then arises as to who bears what? Particularly where matters of (effective or meaningful) control are distributed. This is bound to become more and more complex as the sophistication of AI expands.[134] Legislation like that featured in Canada is a starting point. But for how long and to what extent?

There is equally a matter of ethical gaps and biases both in the manner in which the AI is programmed and the manner in which it is trained. Pasquale notes that in the event we do not find a solution soon, AI will become a tool by which corporations deflect liability much like the use of shell corporations.[135] But how do we overcome these ethical gaps to ensure better informed AI? He gives the solution by ensuring companies engaging in AI development have data collection, analysis and use regulations in place. Such that in developing AI so far as the AI causes harm due to the inappropriate or inaccurate data available to it then punitive damages are made available for the victim.[136] But as we have seen in previous chapters, a key marker for AI is "its" ability to collect, assimilate, retain and synthesise data on its own. Which brings us back to the question of time and appropriateness of AI regulation. Even in countries like Spain where such regulation exists, the regulations are inversely effective when measured against the sophistication of AI in question.

Going back to the problems that AI poses to regulation highlighted by Wendehorst, countries like Serbia and the UK have formulated their regulation to reflect these pitfalls but it remains to be seen how effective regulation would be especially where all reasonable safety measures were met and harm still occurred. [137]

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[134] Mohammed I and Sajith S, Law in the time of AI: A critique on AI- related Regulations,Supremo Amicus, 27, 2021, p 206-219.

[135] Pasquale F, Data-Informed Duties in AI Development, p 1918.

[136] Pasquale F, Data-Informed Duties in AI Development, p 1920- 1935.

[137] Wendehorst C, Strict Liability for AI and other Emerging Technologies, 151- 152.

Internationally, AI regulation has remained in the infancy stage focusing more on the ethical and design questions around development of AI. Vihul remarks that there is difficulty in legislating and regulating AI even without considering its eligibility for personhood. These problems are both procedural and substantive. He defines one such problem as a streamlining issue (a procedural problem) in both domestic and international fora. The other issue is time appropriateness (a substantive issue). This is because these technologies themselves are in their infancy stage.[138]

AI recognition however is still hotly contested judging from the response to the EC on the Civil Law Rules of Robotics[139] According to Hars, an international stance on the recognition of AI would involve understanding its ramifications on public international law. This includes understanding if public international law has a role to play or if such recognition will extend to an international platform.[140] This becomes worth investigating if you share the same sentiments as Lean on the effect of recognition of AI on human rights and dignity particularly of marginalised groups.[141]

Thus, for the most part there is room for improvement on both fronts (recognition and regulation) especially if we intend to continue the permeation of AI into civil, military and everyday life, which is quite evident that we do.

4.4 Conclusion

In conclusion, the legal regime governing the status, development and use of AI is robust but majorly focuses on the nascent qualities of AI. PLP could serve as a means to an end in order to better regulate and ultimately interact with AI.

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[138] Vihul L, International Legal regulation of autonomous technologies, centre for international governance innovation, 6/11/2020. _<https://www.cigionline.org/articles/international-legal-regulation-autonomous-technologies/?utm_source=google_ads&utm_medium=grant&gclid=Cj0KCQiAhc-sBhCEARIsAOVwHuTQVHJH-N6zqvoUw5_DujxnzW1v11aFAjG2nO1TDFF8YpzxDgIrNPIaApIxEALw_wcB> on 2nd of January 2024.

[139] Open Letter to the European Commission of Artificial Intelligence and Robotics, 2017.

[140] Hars A, AI and International Law- Legal Personality and Avenues for Regulation, 19- 21.

[141] Lean P, The extension of Legal Personhood to Artificial Intelligence, 56-62.

5.0 CONCLUSION, RECOMMENDATIONS AND THE WAY FORWARD

5.1 Introduction

“Everything has to come to an end, sometime” - L Frank Baum, The Marvellous Land of Oz.
As the title of this chapter suggests, we shall not introduce any new ideas in this chapter. Rather we shall focus on concluding and revising what we have discussed thus far as well as give recommendations and chart a way forward.

5.2 Recap and Justifications

We started by borrowing the question, can and should we create new legal categories for artificial intelligences and we have come to the conclusion that the answer to both of these questions is more complex than meets the eye.
For starters we needed to understand the evolution of legal personality in order to correctly respond to our ability to create new legal persons. We have seen that time and time again, legal personality is a continuum. It is a spectrum of competencies and capacities dependent on the recognition by whatever legal regime is present that is influenced by the norms of free thinking society that make up that regime. This spectrum expands and contracts as is necessary to fit newer categories of fictitious persons whenever a need arises or societal standing changes. Of importance is that it serves two end goals. One of protection, of the entity seeking recognition and the entities that interact with it. The second of increasing the efficiency of which a legal relationship is conducted i.e. how rights and duties are shared between the participants of the relationship. Thus it is at least philosophically plausible that we can create a new category of legal personality for AI. So yes we can. It becomes more complex when we examine if we should. Which is what the crux of the project was focused on.

In the opening chapter of this project we had categorised the conversation around the should or shouldn't we discussion into four: legal inclusivity, legal exclusivity, legal creativity and lastly legal pacifism. This project has come to the conclusion that yes we should and that partial legal personhood is the middle ground that comfortably accommodates everyones' perspective.

We have come to the conclusion that PLP is not in fact a new category of legal recognition, it is simply a more precise way of articulating what already exists in legal personhood. By understanding legal personhood as a spectrum, we understand that PLP is moulded by context. And thus legal exclusivity scholars don't have to be rattled. At the same time, it gives way for creation of a new category i.e. electronic personhood in the near future allowing for both legal inclusivists and pacifists to be roped in. Lastly for the creatives in the room, this definition can be creative in its execution. The nature of the rights, duties and liabilities afforded under PLP can be limitless just as the configuration of a spectrum is limitless. It allows us to consider the nature and design of AI, the context in which it is functioning, the level of autonomy that it is executing and the risks that it poses.

As for justifications, I don't think "we have done it before" suffices as a reason, though it does provide the retort to the argument that we can not. However, "we need to", is sufficient cause. We understand that one, AI is still at its infancy. Two, it is already posing and executing risks (be that as a robot snapping pictures of a private nature in one's home, generating nudes, generating false narratives and publishing them to the detriment of proper journalism). Three, that these risks will continue to get worse the more developed these intelligences become and the less human intervention is involved. And four whether we like it or not, AI has and will continue to become a significant part of our living thus the chance and extent of harm exponentially grows. Hence some form of legal recourse is necessary and whilst complete personhood poses some inconsistencies with currently existing AI models, PLP provides a way forward. Even in a future where Electronic personhood and singularity become a reality, we will have at least mitigated the harms experienced before then and have enough logistical (legal and design)data on how to better relate with AI.

It is a fact of life that law consistently plays catch up. Very rarely does it anticipate change, but ultimately it has to either adapt or completely bend to the changes thrown at it. PLP is

no different. In fact, one could argue that PLP is the law adapting to change in its simplest form on the one hand. On the other hand, if one considers PLP a complete overhaul of the regime the fact still remains that it is necessary and efficient to mainstream it. However, that argument is for jurists much more wise than I.

5.3 Recommendations

Equally we saw that PLP affords AI the chance at being a subject and object of law simultaneously. Something that is not radically new. And that PLP can be deployed in further fleshing out current and future AI legislation. But ultimately it is the purview of the courts to determine the capacities and liabilities of AI in the context that it arises. And it is the purview of the legislators and policy makers to codify those contexts. Again a matter that is quintessential about a legal regime. My recommendation would be that in such cases, it is necessary to educate the judges on the technicalities of the AI (something that could be done on whoever has the evidentiary burden). Equally, it is necessary to make AI design, manufacturing and deployment as transparent as is legally possible to better anticipate the risks that could arise. This is a job for legislators, policymakers and technical experts to sit down and discuss to mitigate the information and expertise asymmetries in the field.

5.4 The Way Forward

In conclusion, AI is forcing us to look at what it means to be a person. It is forcing us to reimagine the reasons why personhood, legal or otherwise came about. It is part of the evolutionary process of law. We must embrace it and in so doing it will continue to radicalise the legal landscape. The way forward need not be scary. Neither is it so absurdly impossible. The point of law in my opinion is justice because the nature of man is to test boundaries. It is to steal to cheat to connive, whether we feel remorse or not. And AI is modelled after man, therefore to hold it to a moral standard and expect perfection is to wilfully ignore the nature of who created it. Thus law does need to get involved not just for

AI's sake, but for our own as well. It is an interesting time we are living in, and while reality is stranger than fiction, legal fiction is a part of reality.

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