

**A RESPONSE TO SOME RANDOM THOUGHTS ON LEGAL PERSONALITY AND SUBJECTNESS OF ARTIFICIAL INTELLIGENCE ENTITIES\***

**Abstract**

*Artificial Intelligence (AI) is one of the dynamically developing and promising digital technologies. The use of AI, for instance, makes it possible to transfer the industrial segment of the economy to a new technological level. It results in the increase of economic efficiency of industrial enterprises and can radically transform existing social, economic, financial and industrial ecosystems. However, as the use of technologies based on AI becomes more widespread, the number of associated incidents grows as well, indicating that AI are not mere objects whose operation is influenced by others. Regardless of the exceptional operating principle of AI entities, none of the legal systems has recognized AI as subjects of law. It is trite that AI entities are capable of learning from their own personal experience leading to independent conclusions and autonomous decision-making. Systems of AI are different from other regular computer algorithms due to their uniqueness in their capacity to learn and act independently of the will of their developers or programmers. Therefore, failure to manage this technology can lead to major concerns such as moral, ethical issues and problems. This paper considered some random thoughts on whether AI entities can be called subjects of law and drew a response. This paper made use of doctrinal method of analysis data gathered from primary sources such as case laws, legislation, statutes and secondary sources such as books and journal articles. It was discovered that extant laws are not sufficient to capture the operations of AI entities. There is too no accurate definition of the AI concept. The study recommended the granting of legal personality, even if fictionally, on AI entities based on their autonomy and independence, just as the case with corporations.*

**Keywords:** Artificial Intelligence, Legal Personality, Subject of Law, Response

**1. Introduction**

There is no universal definition of Artificial Intelligence (AI). McCarthy who first mentioned the concept in 1956 defined it as ‘the science and engineering of making intelligent machines, especially intelligent computer programs.’<sup>1</sup> By intelligent machines, McCarthy was referring to the ‘computational part of the ability to achieve goals in the world’.<sup>2</sup> Abbot and Sarch<sup>3</sup> referred to AI as a machine that is capable of completing tasks otherwise typically requiring human cognition.<sup>4</sup> Hallevy<sup>5</sup> referred to AI as ‘the capability of a machine to imitate intelligent behaviour’.<sup>6</sup> He further defined AI as ‘the simulation of human behaviour and cognitive processes on a computer and hence is the study of the nature of the whole space of intelligence minds.’<sup>7</sup> However, Russel and Norving<sup>8</sup> opined that these traditional definitions seem to be narrow in scope, wavering between computer as a machine and as a program, and ignores other platforms such as aircraft, drones and satellites.<sup>9</sup> They defined AI as ‘the mechanical simulation system of collecting knowledge and information and processing intelligence of universe: (collating and interpreting) and disseminating it to the eligible in the form of actionable intelligence’.<sup>10</sup>

One could highlight some key features common to all AI entities, which are:

i) AI may act autonomously:<sup>11</sup> An AI may cause harm without being directly controlled by an individual. Humans are only limitedly involved, or in the future not involved at all in the decision making of an AI.<sup>12</sup>Autonomy is one of the most relevant features of software agents such as the AI. The autonomy differs between different fields of AI. For instance, from

---

\*By **K. OGUNNOIKI, BA (Hons.), BL, LLM, PhD Candidate**, Principal Partner: Sammy & Kemmy Law Partners, Lagos, Nigeria. E-mail: keminoiki@yahoo.com; and

\***Ikenga K.E. ORAEBGUNAM, PhD (Law), PhD (Phil.), PhD (Rel. & Soc.), PhD (Edu. Mgt.) (In view), MEd, MA (Rel & Soc), MA (Phil), BTh, BA, BPhil, BL**, Professor and Formerly Head, Department of International Law and Jurisprudence, Faculty of Law, Nnamdi Azikiwe University, P.M.B. 5025, Awka, Anambra State, Nigeria. Email: ikengaken@gmail.com; ik.oraegbunam@unizik.edu.ng. Phone Number: +2348034711211.

<sup>1</sup>J McCarthy, ‘What is Artificial Intelligence? Rev (2007) Stanford University, Computer Science Department <http://www-formal.stanford.edu/jmc/whatisai.html>> accessed 4 May 2020

<sup>2</sup> Ibid

<sup>3</sup> R Abbot and A Sarch, ‘Punishing Artificial Intelligence: Legal Fiction or Science Fiction’ (2019) 53 *UC Davies Law Review* 1, 323

<sup>4</sup> Ibid

<sup>5</sup>G Hallevy; ‘The Criminal Liability of Artificial Intelligence Entities – From Science Fiction to Legal Social Control’ (2010) 4 (2) *Akron Intellectual Property Journal* 171-201

<sup>6</sup> Ibid

<sup>7</sup>Ibid

<sup>8</sup>S Russell and P Norving, *Artificial Intelligence: A Modern Approach* (4<sup>th</sup> edn, NJ Prentice Hall 2009) 4-5

<sup>9</sup> Ibid

<sup>10</sup> Ibid

<sup>11</sup> R Calo, ‘Robotics and the Lessons of Cyberlaw Review (2015)103 *California Law Review* 513, 532

<sup>12</sup> N Johnson et al., ‘Abrupt Rise of New Machine Ecology Beyond Human Response Time’, *Science Reports* September 11, 2013

the autopilot mode in autonomous cars where the driver is required to stay in charge of the car, to the high frequency trading algorithms that function without humans engaging in their activities.<sup>13</sup>

ii) As noted by Floridi and Sanders,<sup>14</sup> these artificial agents are sufficiently informed, ‘smart’, autonomous and able to perform actions independently of their makers. Another author reveals that autonomy increases the chance of the criminal act or omission being decoupled from the mental state: autonomous robots have a unique capacity to splinter a criminal act, where a person manifests the *mens rea* and the robot commits the *actus reus*.<sup>15</sup>

iii) Unpredictability.<sup>16</sup> Some AIs rely on machine learning which involves a computer programme that further develops in response to data without explicit programming, hence it engages in activities its original programmers may not have intended or foreseen.<sup>17</sup> It may react totally differently than a human facing exactly same situation. The outcome of the AI could be unpredictable when the conduct is not a result of an instruction from the programmer, but a self-learned strategy.

Despite the difficulty in defining AI, this paper refers to AI entities as machines that can perform tasks with i) degree of independence, and ii) that humans would consider requiring a reasonable degree of intelligence. This definition falls under the ‘acting rationally’ category, though not comprehensive. This supports the view that AI entities are firmly tied to societal views and social norms, which will be a helpful baseline in our analysis of criminal law.

## **2. Perspectives on the Nature of Artificial Intelligence and AI Entities**

Several scholars have ruminated on the nature and operations of AI and AI entities. Giuffrida, Lederer, and Vermeys<sup>18</sup> argue that culpability of AI entities could be seen in three different ways. The first way is that AI-enabled devices can be treated as property and therefore be the responsibility of their users, owners or manufactures.<sup>19</sup> The second is that they could be treated as ‘semi-autonomous beings’ and fall under a legal regime similar to that of children or persons with mental disabilities or even one similar to the notion of agency.<sup>20</sup> The third is that like corporations, they could be treated as fully autonomous beings and granted legal personality.<sup>21</sup> However, Giuffrida *et al*<sup>22</sup> from the legislative point of view argue that treating AI-enabled devices as property, and hence the responsibility of their users, owners or manufacturers, is relatively simple to imagine and implement as it would require very little by way of amendment. According to them, foreign laws are already drafted in a way that allows for this scenario.<sup>23</sup> This would be akin to the common law doctrine of *res ipsa loquitur* under which negligence is presumed. If one’s property causes harm to a third party, liability could be transferred to the manufacture of the AI-enabled device.<sup>24</sup> Karow<sup>25</sup> support the view of granting of legal personhood as it would necessitate an AI-insurance or the creation of a regime of compulsory compensation.<sup>26</sup> According to him, this compulsion is backed up by a threat of legal sanctions. It implies that the AI has a legal right with a corresponding correlative duty of other entities.<sup>27</sup> Hence mutual rights and duties necessarily set up a legal relation between two persons, and no such relation can exist between a person and a thing or property such an animal or a car.<sup>28</sup> Therefore, there is need to consider whether AI entities such as autonomous vehicles, bolts and other AI-enabled technology are truly ‘beings’ deserving of independent legal status, considering their demonstration of high intelligence when compared to human beings. It was argued that seeing intelligence in this sense would imply that intelligence is no more than the capacity to conduct probabilistic analysis and that intelligence is perceived as the main criteria to establish legal capacity.<sup>29</sup> However, Giuffrida *et al*<sup>30</sup> disagree with this, as they argued that intelligence is not enough for personhood, rather, the test for capacity is that of reason. A person has to

<sup>13</sup> M Scherer ‘Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies and Strategies’ (2016)29 *Harvard Journal of Law &Tech* 363

<sup>14</sup> L Floridi, L .and J.W Sanders (2004). ‘On the morality of artificial agents.’14 (3) *Minds and Machines* 349–379. <https://doi.org/10.1023/B:MIND.0000035461.63578.9d>

<sup>15</sup> A McAllister, (2017) ‘Stranger Than Science Fiction: The Rise of AI Interrogation in the Dawn of Autonomous Robots and the Need for an Additional Protocol to the UN Convention Against Torture’ *Minnesota Law Review*, 101, 2527–2573. <https://doi.org/10.3366/ajicl.2011.0005>.

<sup>16</sup> M Sherer, ‘Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies and Strategies’ (2016)29 (2) *Havard Journal of Law and Technology* 353, 361

<sup>17</sup> C DeBrusk, ‘The Risk of Machine-Learning Bias (and How to Prevent it)’ *MIT Sloan Management Rev.* March 26, 2018 <https://sloanreview.mit.edu/article/the-risk-of-machine-learning-bias-and-how-to-prevent-it/>

<sup>18</sup> I Giuffrida, *et al* ‘A Legal Perspective on the Trials and Tribulations of AI: How Artificial Intelligence, the Internet of Things, Smart Contracts, and Other Technologies Will Affect the Law’ (2018) 68(3) *Case Western Reserve Law Review* 763

<sup>19</sup> *Ibid*

<sup>20</sup> *Ibid* p764, D C, Vladeck, ‘Machine without Principals: Liability, Rules and Artificial Intelligence’ (2014) 89 *Wash. L. Rev*117, 122

<sup>21</sup> Giuffrida *et al* n269 p764, F. P Hubbard, ‘Do Androids Dream? Personhood and Intelligent Artifacts’ (2011) 83, *Tep.L.Rev.*407

<sup>22</sup> I Giuffrida, *et al* n269

<sup>23</sup> *Ibid*

<sup>24</sup> D C, Vladeck, ‘Machine without Principals: Liability, Rules and Artificial Intelligence’ (2014) 89 *Wash. L. Rev*117, 141-42

<sup>25</sup> C E. Karnow, ‘Liability for Distributed Artificial Intelligence’ (1996) 11 *Berkeley Tech L.J* 147, 193-94

<sup>26</sup> *Ibid*

<sup>27</sup> A L Corbin, ‘Legal Analysis and Terminology’ (1919) 33(5) *Yale Law Journal* 501-527

<sup>28</sup> *Ibid*

<sup>29</sup> P Mozur, ‘Google’s AlphaGo Defeats Chinese Go Master in Win for AIK’, *N.Y.TIMES* May 23, 2017 <https://www.nytimes.com/2017/05/23/business/google-deepmind-alphago-go-champion-defeat.html> accessed 2nd Feb 2020

<sup>30</sup> I Giuffrida *et al* n 130 p766

be endowed with reason to be held civilly or criminally liable, to enter into contract, or to exercise other forms of legal autonomy.<sup>31</sup> This is consistent with the opinion of Hildebrandt<sup>32</sup> who sees AI entity as not endowed with rationality. According to him, to be sensitive to censure, rather than mere discipline, a subject need to be conscious of itself allowing the kind of reflection that can lead to contestation or repentance in the case of a criminal charge.<sup>33</sup> Solum,<sup>34</sup> refusing to grant legal personhood to AI is akin to American slave owners saying that slaves could not have constitutional rights simply because they were not white or simply because it was not in the interest of the whites to give them rights.<sup>35</sup> Though this understates the true effects of slavery on the African-American communities, but slavery laws, when stripped from their historical, societal, and moral contexts, do offer insight on how advanced AI could be approached from the standpoint of legal liability.<sup>36</sup>

Allgrove<sup>37</sup> expatiates on the concept of unnatural subject of law and is of the view that for an entity to qualify as the subject of law, it has to have legal capacity and capacity to act. Legal capacity of legal entities is defined as the ability to acquire civil rights and assume civil obligations, except those conditional on such attributes of a natural person such as gender, age and consanguinity.<sup>38</sup> Therefore, convicting AI of crimes requiring a *mens rea* like intent, knowledge, or recklessness, would violate the principle of legality. This principle stems from the general rule of law that holds that it would be contrary to law to convict a defendant of a crime unless it is proved (following applicable procedures and by the operative evidentiary standard) that the defendant satisfied all the elements of the crime.<sup>39</sup> Hence, if punishing AI violates the principle of legality, it threatens the rule of law and could weaken the public trust in the criminal law. Similarly, Abbot and Sarch react to the eligibility challenge of the AI entity in the retributivist theory which states that, like inanimate objects, AI entity is not the right kind of thing to be punished,<sup>40</sup> because AI lacks the capacity to deliberate and weigh reasons and hence cannot possess broad culpability of the sort that criminal law aims to respond to.<sup>41</sup> Abbot and Sarch are of the view that eligibility challenge, just as criminal law, had succeeded in developing doctrines that allow culpable mental states to be imputed to corporations (which ordinarily are incapable of being culpable in their own right)<sup>42</sup> through the respondent superior. This doctrine allows mental states possessed by an agent of the corporation to be imputed to the corporation itself, provided that the agent was acting within the scope of her employment and in furtherance of corporate interests.<sup>43</sup> The same legal device could be used to make AI eligible for punishment<sup>44</sup> since imputation principle of this kind is legally acceptable, wherein acts of respondent superior makes it possible for corporations to be convicted of crimes without violating the principle of legality.<sup>45</sup>

Easterbrook<sup>46</sup> is of the view that existing legal mechanisms should be allowed and applied in order to determine the criminal culpability of the AI entities. In Nigeria, a company 'shall, for the furtherance of its business or objects, have all powers of a natural person of full capacity'.<sup>47</sup> Despite being closely connected to its shareholders and directors, a company's legal personality is different from that of any human's.<sup>48</sup> Therefore, a company can be analogised to an AI entity while the directors and shareholders can be analogised to the programmers or owners of the AI. Academics have drawn comparisons between companies and AI entities. Hallevy points out that people were initially sceptical about the criminal liability of companies, but the answer ended up being 'simple and legally acceptable'.<sup>49</sup> Thus, given that terminologies in criminal law have adopted into incriminate companies, Hallevy argues that the same should be done for AI entities in the 21<sup>st</sup>

---

<sup>31</sup> Ibid

<sup>32</sup> M Hildebrandt, 'Ambient Intelligence, Criminal Liability and Democracy' (2008) 2 *Crim. Law and Philos* 163-180

<sup>33</sup> Ibid

<sup>34</sup> L B. Solum, 'Legal Personality for Artificial Intelligence' (1992) 70 *N.C.L. REV* 1231

<sup>35</sup> Ibid

<sup>36</sup> I Giuffrida *et al* n130 p768

<sup>37</sup> B Allgrove, *Legal Personality of Artificial Intelligence: Pragmatic Solution or Science Fiction?* (London: Baker & McKenzie LLP 2004) 30 <<http://dx.doi.org/10.2139/ssrn.926015>> accessed 28<sup>th</sup> January 2022

<sup>38</sup> P Cerka *et al*, 'Is Possible to Grant Legal Personality to Artificial Intelligence Software Systems?' (2017) *Computer Law & Security Review: The International journal of technology law and practice* doi:10.1016/j.clsr.2017.03.022 <[www.sciencedirect.com](http://www.sciencedirect.com)> accessed 4<sup>th</sup> February 2022

<sup>39</sup> D. N Husak and C. A Callender, 'Wilful Ignorance, Knowledge, and the 'Equal Culpability' Thesis: A Study of the Deeper Significance of the Principle of Legality' (1994) *Wis. L. Rev* 29,30

<sup>40</sup> R Abbot and A Sarch, 'Punishing Artificial Intelligence: Legal Fiction or Science Fiction' (2019) 52 *UC Davies Law Review* 126 <https://lawreview.law.ucdavis.edu> accessed 17<sup>th</sup> July 2021

<sup>41</sup> Douglas Husak, 'Broad' Culpability and the Retributivist Dream' (2012) 9 *Ohio St. J.Crim.L.* 449, 456-57

<sup>42</sup> Albert W. Alschuler, Two Ways to Think About the Punishment of Corporations, (2009) 46 *AM. Crim. L. Rev* 1359, 1367-69

<sup>43</sup> A S Kircher, 'Corporate Criminal Liability Versus Corporate Securities Fraud Liability: Analysing the Divergence in Standards of Culpability' (2009) 46 *AM.Crim.L.Rev.* 157 (2009)

<sup>44</sup> Ibid

<sup>45</sup> P H Robinson, Imputed Criminal Liability (1984) 93 *Yale L.J.* 609, 611-12 (1984)

<sup>46</sup> F Easterbrook, Cyberspace and the Law of the Horse' (1996) University of Chicago Legal Forum 207

<sup>47</sup> Companies and Allied Matters Act (CAMA)2020, s 42-43 (1), *NBCL v. Integrated Gas Nigeria Ltd.* [1999]8NWLR [Pt.613]119 at 129

<sup>48</sup> *Salomon v Salomon & Co Ltd* [1896] Ac 22

<sup>49</sup> G Hallevy, 'Virtual Criminal Responsibility' (2010) 6 *Orig Law Rev* 22-23.

Century.<sup>50</sup> Hallevy is of the view that existing mechanism can be easily transferred due to the analogous nature between corporations and AI entities.<sup>51</sup> Be that as it may, the problem with this opinion is that corporate criminal liability and AI criminal liability are not readily comparable. The main difference is as specified in our working definition of AI entities which involves independence from humans. While companies have a degree of legal independence from humans in the form of corporate personality, they do not have factual independence from humans.<sup>52</sup> Ingles<sup>53</sup> is opposed to Hallevy's view. According to him, 'classifying AI entities within the current spectrum of legal personhood is like trying to cup fine sand in your hands'.<sup>54</sup> He further states that the ability to extend human criminal liability to companies comes from the fact that humans are a common denominator of both individuals and companies. If corporate liabilities were extended to AI entities, criminal liability is being applied to something that is distinct from any human involvement.<sup>55</sup>

Smith reacts to Vicarious Liability of the AI as postulated by Easterbrook in determining the criminal culpability of AI entities. Vicarious liability is a common law doctrine that holds a superior responsible for a subordinate's actionable conducts based on the relationship between the two parties.<sup>56</sup> Smith holds that the role of vicarious liability in criminal law is controversial. It can be over-inclusive as it can hold a superior criminally liable for the actions of a rogue subordinate.<sup>57</sup> Given that vicarious liability is based on harm, it could be argued that it should be applied similarly to AI entities to hold either the programmer or owner culpable for the offence of the AI entity.<sup>58</sup> Criminal sanctions remove significant freedoms from individuals; so evidence in criminal proceedings must be admitted cautiously,<sup>59</sup> hence the standard of proof in criminal law is 'beyond reasonable doubt'<sup>60</sup> to ensure that 'all the necessary and vital ingredients of the charge or charges are proved by evidence'.<sup>61</sup> Given the rebuttable presumption that superiors tend to have in a vicarious liability situation, most Commonwealth nations have rejected vicarious liability in criminal trials.<sup>62</sup> This is also true in Nigeria.<sup>63</sup> Therefore applying vicarious liability as an existing mechanism to determine criminal liability of AI entities does not look feasible as vicarious liability has little practical value in criminal law generally.

There is always the problem of who to hold culpable: the AI entity's owner, user software programmer or the hardware manufacturer? It could be argued that elements of vicarious liability could be applied on a fact-by-fact- basis depending on which party is most blameworthy. However, this approach runs contrary to the no-fault nature of vicarious liability.<sup>64</sup> It seems that if vicarious liability is to be applied to AI entities, all parties must be found culpable. However, the overwhelming complex makeup of AI projects raises 'fundamental logistical difficulties that were not present in earlier sources of public risk',<sup>65</sup> it would be untenable to hold every party culpable for having a part in the creation of the AI entity.<sup>66</sup> If the programmers, and developers of AI entities knew that they could be held vicariously liable, not only for their own actions but also of their customers, they will be reluctant to develop AI entities. This could have a chilling effect on future AI development. Chilling effects on developments were already an issue with vicarious liability.<sup>67</sup>

In comparing AI to the issue of slaves, Hallevy's<sup>68</sup> analogy is arguably more persuasive than the direct comparisons to vicarious liability, given that the master's subjects were treated as properties,<sup>69</sup> just as computers are personal properties of their owners. However, Hallevy's traditional slavery theory raises major difficulties when determining the criminal culpability of AI entities. Firstly, slavery has similar logistical difficulties with vicarious liability. But under vicarious liability, when a slave committed a criminal act, the master would be held personally liable, no other parties involved.<sup>70</sup> Nonetheless, the slavery model only allows the owner of the AI entity to be held liable, even when there is clear evidence

---

<sup>50</sup> Ibid

<sup>51</sup> Hallevy n298

<sup>52</sup> *Salomon v Salomon* n299

<sup>53</sup> I Ingles, 'Regulating Religious Robots: Free Exercise and RFRA in the Time of Super-intelligent Artificial Intelligence' (2017) 105 *Georgetown Law Journal* 507

<sup>54</sup> Ibid

<sup>55</sup> Ibid

<sup>56</sup> J Bell 'The Basis of Vicarious Liability' (2013) 72 (1) *The Cambridge Law Journal* 17. See also *Nduka v Ezenwaku* (2006) 6 NWLR (pt 809)494

<sup>57</sup> M Smith 'Corporate Manslaughter in New Zealand: Waiting for a Disaster?' (2016)27 *New Zealand Universities Law Review* 402

<sup>58</sup> Ibid

<sup>59</sup> *Bazley v Curry* n201 at 1

<sup>60</sup> *Ankpegher v State* [2018] LPELR-43906 (SC) p24-25

<sup>61</sup> *State v Ajayi* [2016] LPELR-40663 (SC) pg 50

<sup>62</sup> M Smith 'Corporate Manslaughter in New Zealand: Waiting for a Disaster?' [2016]27 *New Zealand Universities Law Review* 404

<sup>63</sup> *Shell Petroleum Development Co. (SPDC)v Dino* [2007] All FWLR (pt362)1942

<sup>64</sup> *Bazley v Curry* n201 at 1

<sup>65</sup> M U Scherer, *Regulating Artificial Intelligence System: Risks, Challenges, Competencies, and Strategies.* (2016) 29 (2) *Harvard Journal of Law &Technology*

<sup>66</sup> Ibid

<sup>67</sup> A Barry 'Defamation in the Workplace: The Impact of Increasing Employer Liability.'(1989) 72 *Marquette Law Rev* 265-266

<sup>68</sup> Ibid

<sup>69</sup> Ibid

<sup>70</sup> Hallevy n298

that the logic module was designed by a separate person, or that the AI entity itself made a decision independently of the owner (given that the AI entity was on self-driving duties). Moreover, in Nigeria, slavery is still a sensitive area of history and should not be applied directly to modern day law. Nigeria suffered tremendously under the era of slave trade hence the Constitution of Nigeria<sup>71</sup> clearly spells out that: ‘No person shall be held in slavery or servitude and no person shall be required to perform forced labour’.<sup>72</sup> Slavery is also an offence under the Criminal Code<sup>73</sup> as well as other laws such as the Trafficking in Persons (Prohibition) Law Enforcement and Administration Act.<sup>74</sup> Pagallo<sup>75</sup> argues that AI entities are more suited to the ancient slavery model. He cites the ancient Roman mechanism of *peculium* which grants limited liability to slaves, allowing them to maintain a degree of freedom but remaining as the head of the household’s property.<sup>76</sup> Pergallo suggests an analogous digital *peculium* whereby AI entities are given a degree of rights and responsibilities and are thus ‘guaranteed by their own portfolio.’<sup>77</sup> However, the stigma of slavery law being applied in modern day law remains a limitation for using slave analogies to determine the criminal culpability of AI entities, and the ripple-effect remains.

Halley further considers the issue of direct punishment of AI entity if found culpable of crimes. Hallevy<sup>78</sup> opines that ‘when an AI entity establishes all elements of a specific offence, both external and internal, there is no reason to prevent imposition of criminal liability upon it for that offence.’<sup>79</sup> In Harvey’s view, if all the specific requirements are met, criminal liability may be imposed on any entity, human or corporate or AI entity.<sup>80</sup> Hallevy asserts that ‘AI entities are taking larger parts in human activities, as do corporations and that there is no substantive legal difference between the idea of criminal liability imposed on corporations and on AI entities.’<sup>81</sup> Oraegbunam<sup>82</sup> supports the idea of treating AI entities as legal persons just as corporations. Just as the initial reasoning behind legal personhood to corporations is to promote commercial activity and also remove corporate liability from individual shoulders, in the same vein, AI should be accorded basic constitutional liberty as accorded to corporations. According to Oraegbunam, under legal fiction, AI entities could be seen as juridical entities and should be accorded all the rights and privileges that accrue to such entities, including being held responsible for crimes committed by them. In the case of a corporation, if any person uses legal personality of the corporation for his fraudulent or dishonest purpose, he is not allowed to take shelter behind the legal personality of the corporation. In this situation, the court will lift the veil of incorporation and takes action against the perpetrator. In the same vein, the scenario of AI can be treated same way. If a perpetrator of any fraud or crime is found taking shelter behind the legal personality of the robot, he should be treated by the court as if there was no legal personality. Many precedents thereof are being slowly established like the case of ‘computer raped by telephone’ in which a programmer used a telephone link to invade the privacy of the computer.<sup>83</sup> During the course of the investigation, the questions arose as to whether a search warrant can be issued to computers to fetch evidences.<sup>84</sup> However that may be, Hu<sup>85</sup> is also of the school of thought that AI should be punished subjected the idea of criminal liability to philosophical scrutiny. He made a case for ‘imposing criminal liability on a type of robot that is likely to emerge in the future’ in so far as they may employ morally sensitive decision in making algorithms.<sup>86</sup> It was argued that criminal liability and punishment of AI could fill victims with a sense of satisfaction and vindication. According to Mulligan,<sup>87</sup> ‘taking revenge against wrong doing robots, specifically, may be necessary to create psychological satisfaction in those whom robots harm.’<sup>88</sup> According to this school of thought, if the law fails to express condemnation of robot-generated harms despite robots being perceived as blame worthy, this could erode the perception of the legitimacy of criminal law.

---

<sup>71</sup> Constitution of the Federal Republic of Nigeria (1999) (As Amended) s20, art 34.1(b)

<sup>72</sup> *Ibid*

<sup>73</sup> Criminal Code Act, Cap C38 Laws of the Federation of Nigeria (LFN) 2004, s.369

<sup>74</sup> Trafficking in Persons (Prohibition) Law Enforcement and Administration Act (2015) S.13, art 23-24

<sup>75</sup> U Pegallo ‘What Robots Want: Autonomous Machines, Codes and New Frontiers of Legal Responsibility’ in Mireille Hildebrandt and Jeanne Gaakeer (eds) *Human Law and Computer Law: Comparative Perspectives* (Springer, Dordrecht, 2013)47 at 61

<sup>76</sup> *Ibid*

<sup>77</sup> *Ibid*

<sup>78</sup> G. Hallevy, ‘The Criminal Liability of Artificial Intelligence Entities. -From Science Fiction to Legal Social Control’ (2010) 4 *Akron Intell. Prop.J.*171, 191

<sup>79</sup> *Ibid*

<sup>80</sup> *Ibid* 199

<sup>81</sup> G Hallevy, ‘The Punishability of Artificial Intelligence Technology’, in *Liability for Crimes Involving Artificial Intelligence Systems* (Springer: 2015)185-229

<sup>82</sup> I K E Oraegbunam, ‘Artificial Intelligence Entities and Criminal Liability: a Nigerian Jurisprudential Diagnosis’ (2018) *Unizik J.I.L.J* 8

<sup>83</sup> *BSN (UK) Ltd v Janardan Mohandas Rajan Pillai* [1996] 86 Com Cases 371 (Bom)s. This was the first time the world saw any computer being treated as a person and a search warrant was issued to the computer

<sup>84</sup> *Ibid*

<sup>85</sup> Y Hu, ‘Robot Criminals, (2019) 52 *Mich .J.L.Reform* 487, 531

<sup>86</sup> *Ibid*

<sup>87</sup> C Mulligan, ‘Revenge Against Robots, (2018) 69 *S.C.L. Rev* 579,580

<sup>88</sup> *Ibid*

Nevertheless, Sarch<sup>89</sup> views punishing AI as a conceptual confusion which is akin to hitting one's computer when it crashes. According to Sarch, if AI is just a machine, then surely, the fundamental concepts of the criminal law like culpability, a guilty mind that is characterised by insufficient regard for legally protected values would be misplaced.<sup>90</sup> Some German authors such as Correia<sup>91</sup> and Martin<sup>92</sup> are also in support of Sarch as they defend that the notion of action in the criminal law framework demonstrates that legal entities are not able to act for themselves. According to them, only the natural or physical persons may carry out behaviours that are criminally relevant, hence criminal responsibility cannot fall on a legal entity, but rather on the individual.<sup>93</sup> In the same vein, Castro e Sousa<sup>94</sup> argues that only individuals possess 'personal qualities necessary to be censured for not acting differently,' hence it is impossible to morally and ethically judge entities for not acting lawfully, due to the fact that blameworthiness for an unlawful action demands the existence of an agent that has free and conscious will and chooses to break the law in an hypothesis where he/she could have acted differently.<sup>95</sup> This school of thought concluded that only individuals that have committed the relevant criminal acts on behalf of the legal entities or in their interest can suffer criminal sanctions, and not the legal entities themselves.<sup>96</sup> On another note, Darling<sup>97</sup> opines that punishing AI for expressivist purposes could lead to further bad behaviour that might spill over to the ways other humans are treated, thus, she opined that robots should be protected from cruelty in order to reflect moral norms and prevent undesirable human behaviour.

Ulrich postulates that if we choose to only prosecute and punish physical or biological persons acting on behalf of legal entities, completely waiving criminal accountability of the latter, which would mean that it would be impossible to specifically determine the individuals that should be held responsible, leading to absolute impunity.<sup>98</sup> Ulrich<sup>99</sup> advocates for a change in criminal law that will equate the current change in technological development, because, according to him, we live in a rapidly evolving society characterised by the discourse of global risk, which entails a profound paradigm shift in our cultural, economic, sociological and technological dimensions as a community, and brings paramount changes to the way criminality materialises.<sup>100</sup> Stevens<sup>101</sup> holds that though many writers weigh in on the dangers of AI gaining enormous power and wreaking havoc with humanity, there is no reason why an AI system's killing of a human being or destroying peoples' livelihood should be ascribed to computer malfunction or the AI being not programmed adequately. According to him, that assumption does not cover all possibilities. He argued that it is possible to programme a pilotless drone missile to target and destroy an occupied building. Indeed, it is a standard practice to programme unmanned military devices to kill people and destroy things. Therefore, a taxi could conceivably be programmed to run down people on occasion, a driverless taxi could be directed by human electronic messages to run down people or crash into targets. Stevens therefore advises that we must start thinking about the possibilities of criminal robots. He said the question must always be asked when a robot or an AI entity physically harms a person or property, or steals money or identity, or commits some other intolerable act: was that act done intentionally? Although programmers sometimes refer to software 'bugs' as 'undocumented features,' Stevens is of the view that software code designed to steal, cause damage or even kill can lurk in an AI system because a programmer deliberately placed that undocumented feature there. Stephen argued that society cannot continue to accept 'the computer malfunctioned' reason whenever an AI entity causes harm. He advised that a legal culture that will broadly hold people accountable for AI crimes should be developed now, while AI is still containable, as this can even further help ensure against an even hypothetical future AI apocalypse.<sup>102</sup>

Punishment involves the communication of society's collective commitment to certain core values. It is also trite that good consequences of preventing crime are a major justification of punishment. Conventional theory holds that punishing AI is not in harmony with basic criminal law principles such as the capacity for culpability and the requirement of a guilty mind.<sup>103</sup> Abbott and Sarch hold that punishing AI is not justified as it might entail significant costs (such as conceptual

<sup>89</sup> A Sarch, 'Who Cares What You Think? Criminal Culpability and the Irrelevance of Unmanifested Mental States (2017)36 *L and Phil* 707, 709

<sup>90</sup> *ibid*

<sup>91</sup> Correia, Eduardo, 'Direito Criminal'(2010) 1 *Almedina, Portugal* 234

<sup>92</sup> M Gracia, La Responsabilidad Penal de la Propias Personas Juridicas. In Puig, Mir& Pena, Luzon (eds.) *Responsabilidad Penal de la Empresas y sus Organos y Responsabilidad Por el Producto.*(1996) 35-74

<sup>93</sup> *Ibid*

<sup>94</sup> C Sousa, Joao: As Pessoas Colectivas em Face do Direito Criminal e do Chamado Direito de Mera Ordenacao Social. (1985) *Coimbra Editora, Portugal* 114

<sup>95</sup> *ibid*

<sup>96</sup> R Abbott and A Sarch, 'Punishing Artificial Intelligence: Legal Fiction or Science Fiction' (2019) *University of California, Davis* 125

<sup>97</sup> K Darling, 'Extending Legal Protection to Social Robots: The Effects of Anthropomorphism, Empathy and Violent Behaviour Towards Robotic Objects' in R Calo, A. M Froomkin, I Kerr (eds), *Robot Law* ( UK: Edward Elgar Publishing 2016) 213,228

<sup>98</sup> D Figueiredo 'Pressupostos da Punicao e Causas que Excluem a Ilcitude e a Cula' in Centro de Estudos Judiciarios (org) (1983)1 *Jornadas de Dereito Criminal, Lisbon* 41-83

<sup>99</sup> B Ulrich, *Risk Society: Towards a New Modernity.* (London: Sage Publications,1992)

<sup>100</sup> *Ibid*

<sup>101</sup> RW Stevens, "Can a Robot be Arrested and Prosecuted?(2021) 27 *Mind Matters Artificial Intelligence, IEEE Spectrum* <<https://mindmatters.ai/2021/06/can-a-robot-be-arrested-and-prosecuted/>> accessed 9<sup>th</sup> July 2021

<sup>102</sup> *Ibid*

<sup>103</sup> R Abbott and A Sarch, 'Punishing Artificial Intelligence: Legal Fiction or Science Fiction' (2019) *University of California, Davis*125

confusion, expressive cost, spill-over and the issue of right) and it would require legal changes.<sup>104</sup> Criminal penalties imposed on guilty persons typically include monetary fines, or loss of liberty (prison or detention). They reiterated that it may be hard to fine or imprison an offending driverless car or a defrauding scam bot. killing a machine might have little effect on the humans behind the machine, or it might cost a corporation a huge sum of money. Either way, society urgently needs to prevent or deter the crimes or penalise people who commit them.<sup>105</sup> Abbot<sup>106</sup> states that criminal law cares not only about what was done, but why it was done, as most crimes contain a mental state element, alongside the physical element (*mens rea* and *actus reus*). Criminal law looks to identify the actor, decides whether the actor is blameworthy, punishes the wrongful actor, and deters that actor and anyone else from committing the same wrong.<sup>107</sup>

As regards AI crimes, and in answering a question on whether it makes sense to apply criminal laws to the actions of AI entities, Abbott observes that there may be no identifiable person who can be directly blamed for AI-caused harm. According to Abbott, potentially, hundreds of people worked on aspects of the computer hardware and software in the AI vehicle, with many others involved in the maintenance and repair after the vehicle begins its service.<sup>108</sup> Abbott therefore postulated a Principle of Legal Neutrality.<sup>109</sup> Under this Principle, the behaviour of AI entity is evaluated approximately in the same way as the same behaviour committed by a human. That means treating a crime committed by AI entity the same as crimes committed by humans. Any human death resulting from AI conduct needs investigating to see if it was truly an accident or if it resulted from intentional or criminally reckless conduct.<sup>110</sup> However, this is easy to say, not easy to do. According to Stevens,<sup>111</sup> forensic analysis of complex software, especially when it ties into a network of other AI systems and data sources, is painfully difficult. Citing the instance of the recently reported challenges of trying to detect computer-aided vote fraud in US 2020 election makes this reality clear. Software can act improperly because of its internal data entering the system, but sometimes, intermittent, non-reproducible hardware malfunctions occur to scramble software operation. If external data came through a 'back door' access to the AI system, investigators may never find who sent the message to cause the AI system malfunction.<sup>112</sup> In his book, *Reasonable Robots*,<sup>113</sup> Abbott reiterates that criminals can commit serious crimes and never be identified, let alone prosecuted and punished. Abbot extensively advocates the 'punishment of AI', but ultimately, he described no practical way to implement the punishment. More effective approach would be to hold liable anyone who contributed in any substantial way to the AI crime. If the designers and implementers of the software can be found, they would be defendants. The people who hosted the AI system on their computers and servers would also be defendants.

Hart<sup>114</sup> defines punishment in terms of five elements: i) It must involve pain or other consequences normally considered unpleasant; ii) It must be for an offence against legal rules; iii) It must be of an actual or supposed offender for his offence; iv) It must be intentionally administered by human beings other than the offender; v) It must be imposed and administered by an authority constituted by a legal system against which the offence is committed.<sup>115</sup> Thus, punishment requires a conviction for a legally recognised offence following accepted procedures.<sup>116</sup> Though under this definition, imprisonment, fines, or asset forfeiture carried out in response to a proper conviction would count as punishment, however, criminal law requires certain prerequisites, such as a capacity for culpability, before a defendant can be properly subjected to punishment. It is a fundamental aim of criminal law to condemn culpable wrongdoing, and it is the default position in criminal law that punishment may only be properly imposed in response to culpable wrongdoing.<sup>117</sup> It is likely true, that AI, as currently operated and envisioned, may not be responsive to punishment.<sup>118</sup>

### **3. Legal Personality versus Artificial Intelligence Entities: Responses on Culpability**

Existing law traditions recognize two types of subjects of law, natural person and legal entities. Kelsen defines natural person as a subject of law who is not assimilated with a legal entity.<sup>119</sup> According to him, it would be wrong to identify a natural person with a biological status of human being.<sup>120</sup> It would be wrong to identify a natural person with a biological

---

<sup>104</sup> Ibid

<sup>105</sup> Ibid

<sup>106</sup> R Abbott, 'The Reasonable Robot: Artificial Intelligence and the Law' (Cambridge: Cambridge University Press 2019)

<sup>107</sup> Ibid

<sup>108</sup> Ibid

<sup>109</sup> Ibid

<sup>110</sup> Ibid

<sup>111</sup> R W Stevens, 'Can a Robot be Arrested and Prosecuted?' *Mind Matters Artificial Intelligence* IEEE Spectrum (June 7 2021)

<<https://mindmatters.ai/2021/06/can-a-robot-be-arrested-and-prosecuted/>>

<sup>112</sup> Ibid

<sup>113</sup> R Abbott n 242

<sup>114</sup> HLA Hart, *Punishment and Responsibility: Essays in the Philosophy of Law* 4-5 (2<sup>nd</sup> ed.2008)

<sup>115</sup> Ibid

<sup>116</sup> Ibid

<sup>117</sup> N Lacey and H Pickard, 'To Blame or to Forgive? Reconciling Punishment and Forgiveness in Criminal Justice' (2015) 35 *Oxford J. Legal Stud* 665,666

<sup>118</sup> Ibid

<sup>119</sup> H Kelsen, *General Theory of law and State* (3<sup>rd</sup> edn. The Lawbook Exchange, Ltd.2009)94

<sup>120</sup> Ibid

status of human being. A natural person is a mere personalization of legal norms granting rights and imposing obligations that govern human behaviour.<sup>121</sup> Austin<sup>122</sup> is of the view that a natural person is a human being with rights and obligations and an equivalent of a biological being.<sup>123</sup> On the other hand, Legal Entity, i.e. unnatural or artificial subjects of law is defined by Pandey as a fiction of law with limited capabilities.<sup>124</sup> Legal entities are limited by the *ultra vires* doctrine, which enables them to enter only into such contracts that do not conflict with their objectives provided for in the documents of incorporation.<sup>125</sup>

From the various theoretical perspectives enunciated by different writers above, it is obvious that there is no generally acceptable approach as to how to determine the culpability of the AI. However, it is important to note that the issue of voluntariness of an act is key. The conduct proscribed by a certain crime must be done voluntarily. But concepts such as consciousness, will, voluntariness and control are often bungled and lost between arguments of philosophy, psychology and neurology, leading the judiciary and legal scholars to prefer stating the cases where there is not a voluntarily act.<sup>126</sup> As Herring<sup>127</sup> affirms: ‘an involuntary action is one for which not only is the defendant not responsible, it is not even properly described as his act’.<sup>128</sup> So the voluntariness requirement excludes from criminal liability those acts that are done unconsciously or by mere automatism.<sup>129</sup> This fact shows that AI entities should only be made criminally accountable if they voluntarily acted, which means the act must be done with will, volition or control. But criminal courts and legal scholars demand the existence of a human action, that is the voluntariness, must be exhibited by humans and not inanimate objects or animals.<sup>130</sup> The implication is that voluntariness being expressed as a requirement is deeply tangled with demanding human agency.

However, it is noteworthy that human agency is no longer an absolute and unsurpassable criteria. Legal entities are now criminally liable for certain offences, which idea could open the path for having criminal responsibility of AI entities.<sup>131</sup> It is also true that recognising *mens rea* of AI entities can pose a difficult challenge to overcome. First is how to determine the specific level of development of a particular AI entity. Not all AI entities bear the same capabilities, e.g. cognitive skills and abilities, and this should be reflected on whether *mens rea* can be attributed to an AI entity.<sup>132</sup> Secondly, a certain state of mind, which differs from one crime to another, must be attributed to the accused. Some authors are of the view that the only mental requirements needed to impose criminal liability are knowledge, intent, negligence among others, and also affirm that knowledge and specific intent can be attributed to AI entities when these have sensory receptors of factual data, which in turn are analysed by the AI entity.<sup>133</sup> Even if AI entities have sensors which provide them with data that could be processed internally, is it legally appropriate to say that the AI entity understands or comprehends what is being processed? This could lead to the controversial ‘Chinese Room Argument’ of John Searle,<sup>134</sup> which is the subject of a never-ending debate with inconclusive results.<sup>135</sup> Moreover, there is the problem of determining blameworthiness of AI entities. *Mens rea* can be referred to in its general sense or in its special sense.<sup>136</sup> To demand the presence of a certain mental state in the agent, which is described by the offence, is to demand *mens rea* in its special sense. But this is not sufficient. Criminal law should ensure punishment is enforced only when the agent is at fault.<sup>137</sup> One could conclude that provided that AI entities have self-awareness, self-consciousness, free and conscious will, ability to apprehend the (un)lawfulness of their behaviour and means to guide themselves by law, these have fulfilled the minimum requirements to call forth their blameworthiness and, hence their criminal responsibility are present. The presence of such elements enables AI entities to be active legal actors in criminal justice. Restrictions of a person’s free-will are linked with the restriction of the person’s rights, which are permitted only in cases provided for in law. As AI entities become involved in people’s lives and are able to make autonomous decisions, situations will arise where decisions and actions made by AI entities could affect the free-will and

<sup>121</sup> Ibid

<sup>122</sup> J Austin, ‘Lectures on Jurisprudence or, The Philosophy of Positive Law (J Murray, London 1885) 350

<sup>123</sup> Ibid

<sup>124</sup> A K Pandey, ‘The Concept of Corporate Personality: A Critical Analysis’ (2008) *The ICFAI University Journal of Corporate and Securities Law*, 54

<sup>125</sup> Ibid

<sup>126</sup> Hamilton, Melissa: ‘Reinvigorating Actus Reus: The Case for Involuntary Actions by Veterans with Post-Traumatic Stress Disorder’ (2011) 16 (1) *Berkeley Journal of Criminal Law* 346-390

<sup>127</sup> H Jonathan: *Criminal Law: Text, Cases, and Materials*, (5<sup>th</sup> edn, Oxford: Oxford University Press, 2012)

<sup>128</sup> Ibid p105

<sup>129</sup> D Figueiredo *Direito Penal, Parte Geral* (2<sup>nd</sup> ed. Portugal: Coimbra Editora, 2012)1

<sup>130</sup> P M Freitas, F Andrade et al, ‘Criminal Liability of Autonomous Agents: from the Unthinkable to the Plausible’, Law School, Universidade do Minho, Braga, Portugal <pfreitas@direito.uminho.pt>

<sup>131</sup> ibid

<sup>132</sup> ibid

<sup>133</sup> G Hallevy, ‘The Criminal Liability of Artificial Intelligence Entities-from Science Fiction to Legal Social Control’ (2010) 4 (2) *Akron Intellectual Property Journal*, 188

<sup>134</sup> J Searle, ‘Minds, Brains and Programs’ (198) 3 *Behavioral and Brain Sciences* 17-424

<sup>135</sup> Freitas et al n270

<sup>136</sup> S H Kadish, S J Schulhofer, *Criminal Law and its Processes: Cases and Materials*, (7<sup>th</sup> ed. New York: Aspen Publishers, Inc. (2001) 203

<sup>137</sup> M Jefferson: *Criminal Law*, (8<sup>th</sup> ed. England: Longman, 2008)86

lifestyles of individuals (biological creatures), in some cases, outright crimes are associated with AI activities. If considered just as an object of law, AI entity would not be able to face the appropriate punishment ought to be meted on it for any crime, hence the need for legal personhood of AI entities.

There is no uniformity across legal systems in recognising entities as a legal person. A 'person' is generally defined as being a subject or bearer of a right, and duties.<sup>138</sup> According to Black's Law Dictionary, 'a person is any being whom the law regards as capable of rights and duties.'<sup>139</sup> Another definition says a person in law is defined by reference to rights and duties which means that a legally recognised person is subject to legal rights and duties.<sup>140</sup> Similarly, Butterworths Australian Legal Dictionary describes a person as 'a separate legal entity, recognised by the law as having rights and obligations. That includes human beings and entities of humans only whom the law regards as having rights and duties.'<sup>141</sup>

Though many jurists have restricted the use of the term 'Personality' to human beings alone, but legal personhood is not necessarily synonymous with or confined to human beings.<sup>142</sup> Hence, personality in legal concepts depends on a given jurisdiction having an independent legal system. For instance, some idols are legal persons in some countries such as India. Example is the Indian case of *Pramatha Nath Mullick*,<sup>143</sup> where the Privy Council held that the term personality has a far wider connotation in law and it includes gods, angels, idols, etc.<sup>144</sup> In Indian law, all corporations, companies, association of persons, trusts have separate corporate personality, distinct from their members and agents.<sup>145</sup>

The principal purpose of legal personhood, conferred on whomever and whatever, is to facilitate the regulation of conduct by an organised society.<sup>146</sup> The duty imposed on a person is said to correspond to the right of another and as West<sup>147</sup> succinctly puts it a 'breach of duty is an act of injustice.'<sup>148</sup> The question is: is it possible to grant legal personality to AI entities? Allgrove<sup>149</sup> identifies four key theories for the definition of the concept of unnatural subject of law. They are:

**Concession theory:** This theory says corporate personality does not exist unless it is granted. In theory, only incorporated legal entities have legal personality. However, legislation actions to be run on behalf of partnerships, trade unions or other entities can indirectly confer limited personality.<sup>150</sup>

**Fiction theory:** This theory views legal entities as subjects of law with no legal personality, and the latter is conferred only as a legal fiction. Legal entities are only a legal construct having no factual foundations. It is intangible and artificial, being a mere creation of law and acts only within the limits of its articles of association.<sup>151</sup> Fictitious entities have no free will or ideas, therefore natural persons express their will.

**Symbolist theory:** This theory views legal entities are devices created by law with power to exercise within the limits of their articles of association. Symbolist theory sees legal entities as mere legal shorthand for describing the interactions with and between the humans and corporate system.<sup>152</sup>

**Realist theory:** According to this theory, legal entities are neither symbols nor fiction, but are objectively real entities personalized by us.<sup>153</sup> The theory says if legal entities are mere creatures of law, the law itself grants reality to them.<sup>154</sup> Though artificially created, legal entities exist and are real. The same is true for AI entities; their being artificial does not negate their existence.

The ability of an entity to acquire rights is one of the factors defining the subject of law.<sup>155</sup> However, making the legal status conditional on the mere ability of the entity to have rights would either excessively expand or narrow down the list of subjects of law. For instance, this could mean all living entities capable of feeling would either be treated as subjects of

---

<sup>138</sup> Z Rizvi 'Legal Personality' (2020) *Indian Legal Solution* <<https://indianlegalsolution.com/tag/zainul-rizvi/>>accessed 4<sup>th</sup> Feb 2022

<sup>139</sup> Henry Campbell Black, *Black's Law Dictionary* (4<sup>th</sup> edn, West Publishing Company, 1968)

<sup>140</sup> B Smith, 'Legal Personality' (1928) 37 (3) *Yale Law Journal* 283-299

<sup>141</sup> PE Nygh (ed) *Butterworths Australian Legal Dictionary*. (Adelaide: Butterworth 1997)

<sup>142</sup> *Bryn v New York City Health & Hosp Corp* (1972) 286 N E 2d 887

<sup>143</sup> *Pramatha Nath Mullick v Pradyuma Kumar Mullick*, [1925] LR 52: Ind.App.245

<sup>144</sup> *Ibid*

<sup>145</sup> *Ibid*

<sup>146</sup> B Smith 'Legal Personality' (1928) 37 (3) *Yale Law Journal* 283-299

<sup>147</sup> R West, 'Rights, Harms and Duties: a Response to Justice for Hedgehogs'. (2010) 90 *Boston University Law Review* 819-837

<sup>148</sup> *Ibid*

<sup>149</sup> B Allgrove, *Legal Personality of Artificial Intelligence: Pragmatic Solution or Science Fiction?* (London: Baker & McKenzie LLP 2004) 30 <<http://dx.doi.org/10.2139/ssrn.926015>>accessed 28<sup>th</sup> January 2022

<sup>150</sup> *Ibid* p57

<sup>151</sup> *Ibid*

<sup>152</sup> K Iwai, 'Persons, Things and Corporations: The Corporate Personality Controversy and Comparative Corporate Governance' (1999) 47(4) *American Journal of Comparative Law* 2

<sup>153</sup> *Ibid*

<sup>154</sup> *Ibid*

<sup>155</sup> CR Sunstein, 'Standing for Animals' (1999) 6 *Public Law and Legal Theory Working Paper* 3-8

law or on the contrary, as inanimate entities, would be eliminated from being subjects of law.<sup>156</sup> Therefore, for a person or corporation (legal entity) to qualify as a subject of legal relations, they have to possess certain characteristics:

**i) Legal capacity:** This is the capacity and power to exercise rights and undertake obligations by way of one's own conduct, i.e. without assistance of representation by a third party. This concept logically presupposes the capability to be a potential holder of rights and obligations (static elements) and entails capacity to entertain these rights and undertake these duties to create, modify or extinguish legal relationships (dynamic element).<sup>157</sup> The ability to acquire subjective rights and undertake obligations granted by legal norms, a permanent and integral civil state of each individual, legal precondition for their ability to acquire and retain rights, and prohibition of legal discrimination.<sup>158</sup>

**ii) Capacity to act:** This means the ability to do something.<sup>159</sup> It is the ability of the subject of law to exercise specific rights or undertake obligations conferred by legal status, for example, a child has the legal status and the relevant rights of a minor, but the child cannot exercise the rights and is not required to fulfil any obligations.<sup>160</sup> The United Nations High Commissioner for Human Rights<sup>161</sup> stated that capacity to act is subject to the possession of additional requirements such as i) minimum age and ii) the meaning of one's actions and consequences. That is, to a person has to be of full legal age and have full freedom to make independent decisions and to understand their consequences.<sup>162</sup> According to the document, 'capacity to act can be limited to only when individuals become unable to protect their own interests. In these cases, the person remains the holder of substantive rights (e.g. the right to property or the right to inherit) but cannot exercise them (e.g. sell his/her property or accept an inheritance) without the assistance of a third party appointed in accordance with the procedural safeguards established by law'.<sup>163</sup> However, a legal entity's capacity to act is often conditioned on other criteria different from those applicable to natural persons, e.g. it is not conditioned on age, or absence of capacity to act.) Legal capacity of a legal entity arises with its capacity to act. Therefore, the term 'capacity to act' is usually avoided with legal entities and is sometimes replaced with subjectivity which covers the concepts of legal capacity and capacity to act.<sup>164</sup> Unlike natural beings, legal capacity of a legal entity arises from the moment of its registration, or incorporation. An important element of the subjectivity of legal entities is the fact that they themselves cannot enjoy the powers conferred by legal capacity and capacity to act. Legal entities can only exercise their rights and fulfil their obligations through their authorised representatives.<sup>165</sup> Juxtaposing this to AI, it is important to note that due to the technical capabilities integrated in AI which include autonomous decision making, ability to learn from experience, memory, planning, complexity, formality and ability to manipulate structures, AI possess characteristics typical of entities that have the capacity to act, i.e. AI entities are able to exercise specific rights or be subject to obligations imposed by their legal status.

With the characteristics necessary to be granted the capacity to act, AI entity will be able to fulfil obligations and determine the consequences of its actions. From this point of view, AI entities would even precede legal entities (corporations) limited by the will of their authorised representatives and unable to personally exercise rights, fulfil obligations and assess potential consequences.<sup>166</sup> Therefore, legal subjectivity of a legal entity (corporation) is narrower than that of a natural person (biological) with the capacity to act. This is due to the specific nature of legal entities as having no personality and cannot exercise those civil rights and fulfil those civil obligations which require such traits of a natural person as gender, age and consanguinity. Also due to the specific properties of AI entities, respectively the scope of their rights and obligations, (should they be found subjects of law) would not necessarily be the same as the scope of rights and obligations of other subjects of law. Similarly, to legal entities, such systems are merely a result of activities of other persons. Thus, AI entities could only have rights and obligations strictly defined by legislators. The definitions of such rights and obligations would facilitate the existing and future relations between technologies based on AI and other subjects of law. If legal analogy was used, granting legal personality to AI entities could be expressed as granting them certain rights and obligations with

---

<sup>156</sup> P Cerka *et al.*, n47 p11

<sup>157</sup> Background Conference Document Prepared by the Office of the United Nations High Commissioner for Human Rights in the Fifth Session of the Ad Hoc Committee on a Comprehensive and Integral International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities. 24 January to 4 February 2005.

<sup>158</sup> A Vaisvila, *The Theory of Law* 2<sup>nd</sup> ed. Justitia 2004

<sup>159</sup> CK Allen, *Legal Duties and Other Essays in Jurisprudence* (The Clarendon Press 1931) 47

<sup>160</sup> B Walston-Dunham, *Introduction to Law* (5<sup>th</sup> edition, New York 2009)417

<sup>161</sup> Background Conference Document Prepared by the Office of the United Nations High Commissioner for Human Rights n55

<sup>162</sup> *Ibid* p14

<sup>163</sup> *Ibid* p14

<sup>164</sup> P Carka *et al.*, 'Is It Possible to Grant Legal Personality to Artificial Intelligence Software Systems? (2017) *Computer Law & Security Review: The International journal of technology law and practice* doi:10.1016/j.clsr.2017.03.022 <www.sciencedirect.com> accessed 4<sup>th</sup> February 2022

<sup>165</sup> *Ibid*

<sup>166</sup> *Ibid*

well-defined scope, as well as registering them or introducing authentication certificates allowing for their identification in each instance of operation and limiting the possibility to change the identification details.<sup>167</sup>

#### **4. Conclusion**

Today, there are numerous technologies based on the operating principles of AI entities such as Google Self-Driving Car, autopilots, controlling airplanes, digital assistants such as Siri, Cortana and Google Now, robot nurses, mind-controlled Google smart glasses, etc. As the use of technology based on AI become more extensive, the number of incidents grows as well. Despite the unique operating principle of such systems, no legal system has recognized them as subjects of law.<sup>168</sup> This study is hopeful that the current lack of legal status of AI entities is temporal and would change in due time. As society accepts agents as legal entities, which are recognized as subjects of law, there is no reason why AI entities should not be clothed with the same legal status. It is an established fact that AI entities possess all the necessary elements typical of entities recognized as subjects of law such as intelligence, autonomous decision-making, ability to learn from their own experience, memory, planning complexity etc.<sup>169</sup>

AI entities should be granted legal personality due to their interactions with other subjects of law, optimum protection of whose rights and interests require a clear definition of the legal status of AI entities.<sup>170</sup> Currently, under the existing legal regulation, AI entities are seen as objects of law and the issue of liability for damage caused by AI entities remains unclear. Rapid advancement in AI entities will soon result to situations where having assessed threats and hazards to persons, autonomous systems based on AI will make decisions, which are intended to be in the best interests of individuals, even though conflicting with their will. As AI entities capable of making independent decisions become more involved in the lives of people, situations may occur where an AI makes decisions and appropriate actions taken that could affect the free will and lifestyles of biological creatures.<sup>171</sup> This necessitates the need to grant legal personality to AI entities. They need to be prevented from interfering with the rights of others when carrying out their operations in the society. Even when their actions are driven by good intentions, it is still expedient to decide on their legal liability in cases where damages occur. The ability to gather individual experience and make autonomous decisions independent of the will of programmers and users will mean that autonomous systems drive change in the world of technology. Legal regulation of the interaction and relationships between individuals and technologies would be less complicated if AI entities are granted legal personality. This would allow separating AI entities from their operators, programmers and end-users. With legal personhood on AI entities, it simply means AI entities would be taken seriously by the courts. It could be treated as an object separate from their programmers or users. It could be similar to a corporate personality.<sup>172</sup> Although void of philosophical personality and the ability to express their own will in ways usual for natural persons, AI entities could be granted the status of the subject of law as derivative, artificial subjects of law.<sup>173</sup>

---

<sup>167</sup> Ibid p12

<sup>168</sup> B Allgrove, *Legal Personality for Artificial Intelligence: Pragmatic Solution or Science Fiction?* (London: Baker & McKenzie LLP 2004) 30 <<http://dx.doi.org/10.2139/ssrn.926015>> accessed 28<sup>th</sup> January 2022

<sup>169</sup> P Cerka *et al*, n101

<sup>170</sup> Ibid

<sup>171</sup> C. Cookson, 'Scientists Appeal to Ethical Use of Robots'. *The Financial Times*, UK, December 11, 2015

<sup>172</sup> P Carka *et al*, n101

<sup>173</sup> Ibid