ARTIFICIAL INTELLIGENCE IN THE MALAYSIAN LEGAL SYSTEM: ISSUES, CHALLENGES AND WAY FORWARD

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ABSTRACT

The coming of the Industrial Revolution 4.0 has outraged those who have not braced themselves for it. The legal fraternity is one of the industries affected, stunned by the imminent digital technologies that learn on their own such as artificial intelligence (AI). Unlike any other previous technology, AI can make judgments freely and unexpectedly, causing concern on accountability for the harm inflicted by AI decision-making. The first part of this paper defines AI's functions and opportunities presented. Given the promising features of AI, the Malaysian judiciary has explored the used of AI in sentencing, as explained in the second part. Despite such opportunities, notable issues and challenges concerning negligence, vicarious liability, and crime arising from the use of AI technology cannot be overlooked. The paper concludes that the role of mankind is highly central in the use of AI despite the promising, yet risky potentials it could uncover.

Keywords: artificial intelligence, legal system, Malaysia, sentencing

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INTRODUCTION

> *"People worry that computers will get too smart and take over the world, but the real problem is that they're too stupid and they've already taken over the world"*[1].

As much as the language of the above quotation can be improved, the message contains a hard truth we need to swallow. The hard truth is that the job of humans everywhere is being taken over by robots - especially those involving repeatable processes. Spell-checking and search engines are good examples that were introduced as early as the 1990s and have since revolutionised. AI and machine learning have been able to make search engines suggest the best key terms to assist research. On the other hand, facial recognition constantly detects passengers at airports – and with the COVID19 pandemic, advanced sensors have been developed to be able to detect body temperatures from afar. Developers are also working to make computers to forecast court rulings correctly. People are worried that there may come a time that we will no longer need human judges.[2] On that note, there have also been considerable objection – as will be explored in this article - on the use of AI in the legal fraternity particularly in court trials.

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[1] Pedro Domingos, *The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World* (New York: Allen Lane, 2015), 286

[2] Ziyaad Bhorat, "Do We Still Need Human Judges in the Age of ArtificialIntelligence? | OpenDemocracy," Open Democracy, August 8, 2017, https://www.opendemocracy.net/en/transformation/do-we-still-need-human-judges-in-age-of-artificial-intelligence/; Padraig Belton, "Would You Let a Robot Lawyer Defend You? - BBC News," BBC News, August 16, 2021, https://www.bbc.com/news/business-58158820; Eric Niiler, "Can AI Be a Fair Judge in Court? Estonia Thinks So ," WIRED, March 25, 2019, https://www.wired.com/story/can-ai-be-fair-judge-court-estonia-thinks-so/.

Be that as it may, there are legal professionals who have found AI to be very helpful, rather than a mere threat. For example, Sally Hobson is a barrister with the London-based chambers 'The 36 Group' and specialises in criminal matters. She employed AI in a high-profile murder trial that required a rapid analysis of almost 10,000 documents. The software completed the work four weeks faster than people could, thus saving the company £50,000. AI is not only assisting attorneys in sorting through documented evidence. Additionally, it may now assist clients in preparing and structuring their case, as well as doing a search for any relevant legal precedents.[3] All these positive points seem too good to be true, however the use of AI may transform how legal tasks could have been executed far more effectively, hence reducing the cost for justice.

There have been considerable responses to the coming of AI around the world. The European Union has undertaken several efforts aiming at establishing a comprehensive AI policy, which will involve legislation. The UK's House of Lords Select Committee on AI and the All-Party Parliamentary Group on AI are at risk of doing both, too much and too little.[4] The UK's new Centre for Data Ethics and Innovation may prove to be "another toothless marvel" and the government has been criticised for not having a clear mandate, leadership, and action plan on artificial intelligence. Some experts fear the centre will devolve into a series of talking shops, producing one-off papers on abstract topics.[5]

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3 Padraig Belton, "Would You Let a Robot Lawyer Defend You? - BBC News."

4 Job Turner, Robot Rules: Regulating Artificial Intelligence (London: Palgrave Macmillan, 2019), 225.

5 Rowland Manthorpe, "Theresa May's Davos Speech Exposed the Emptiness in the UK's AI Strategy | WIRED UK," Wired, January 28, 2018, https://www.wired.co.uk/article/theresa-may-davos-artificial-intelligence-centre-for-data-ethics-and-innovation; Theresa May, "Theresa May's Davos Address in Full | World Economic Forum,"

The Obama administration in its last months published a landmark study on the Future of Artificial Intelligence, along with an associated policy paper.[6] While significant private sector of AI development is occurring, the US Federal Government does not seem to be engaged in substantial regulation of AI at the time of writing. China has established a special committee on artificial intelligence, with Wael Diab, a senior director of Huawei, as the chair.[7] China is desirous to be a leader in AI regulation, as reflected at the United Nations Group of Governmental Experts on lethal autonomous weapons systems in April 2018. On the other hand, the Japanese government has also been proactive in AI development, fuelled by its national economic policy and assisted by a robust public dialogue on AI. Such exemplifies how governments may encourage national and worldwide discussion on AI. Japan's task will be to maintain this early momentum, which will be aided if other countries adopt a similar strategy.

Defining AI

Despite arguably being of importance in the modern era, defining AI has not been easy. In plain language, the term 'artificial' refers to anything manufactured and not found in nature. The fundamental issue is with the term 'intelligence,'

World Economic Forum, January 25, 2018, https://www.weforum.org/agenda/2018/01/theresa-may-davos-address/.

6 Ed Felten and Terah Lyons, *"The Administration's Report on the Future of Artificial Intelligence | Whitehouse.Gov*," The White House, October 12, 2016, https://obamawhitehouse.archives.gov/blog/2016/10/12/administrations-report-future-artificial-intelligence.

7 Jeffrey Ding, "Deciphering China's AI Dream," Governance of AI Program, Future of Humanity Institute, 2018, https://www.fhi.ox.ac.uk/wp-content/uploads/Deciphering_Chinas_AI-Dream.pdf.

which may refer to a wide variety of characteristics or talents. Job Turner submitted that rather than focusing on 'what AI is', it is better to shift to the question of 'why do we need to define AI' at all? US Supreme Court Justice Potter Stewart in the case of *Jacobellis v. Ohio*, 378 U.S. 184 (1964), 197, once stated that he could not describe hard-core pornography, but "I know it when I see it."

Job Turner offered the following context to understand AI workability: - AI be understood as the ability of a machine or computer programme to behave intelligently in the same way that a human being would.[8] Hence, human intelligence becomes the serving yardstick for what AI does. Intelligence is the capacity to reason abstractly, logically, and consistently, to discover, lay, and see-through correlations, to solve problems, to discover rules in seemingly disordered material, to solve new tasks, to adapt flexibly to new situations, and to learn independently, without the need for direct and comprehensive instruction.[9]

To put it simply, no one thing can be pointed as 'Hey this is AI' – equivalent to a pen. An AI can be anything, any programme or computer – so long as it performs automated intelligent functions.

Before we worry about the potential dangers AI could cause, let us consider what it could do to offer benefits. As far as court judges are concerned, it has been argued that AI will make judgments fairer, does not get exhausted and does not depend on its glucose levels to work, unlike human judges.[10] Nevertheless, this article does not wish to argue on the need to replace human judges with AI – as this stance will be premature to conclude at this moment.

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8 *Turner, Robot Rules: Regulating Artificial Intelligence*, 7–8.

9 Jerry Kaplan, *Artificial Intelligence: What Everyone Needs to Know* (London: Oxford University Press, 2016).

10 Daniel Kahneman, Thinking, Fast and Slow (London: Penguin, 2011).

According to Pew Research, 68 per cent of individuals from 11 most developed economies owned at least one smartphone in 2016.[11] The Malaysian Communications and Multimedia Commission in 2020 reported Internet users accessing the Internet via smartphones reached a near-saturation level of 98.7 per cent in 2020, up from 93.1 per cent in 2018, owing to smartphones' robust connectivity, efficiency, and variety of functions and applications.[12] Smartphone applications (or 'apps'), such as music library recommendations are examples of AI that detect previous listening behaviour and predictive text suggestions for texting. AI are sophisticated algorithms adopted by Internet search engines to continuously improve based on our queries and responses to the results. More accurately, each time we use a search engine, we are being 'used' by that search engine.[13] Virtual Personal Assistants (VPAs) such as Apple's Siri, Google's Assistant, Amazon's Alexa, and Microsoft's Cortana are examples of AI that have penetrated the global market. This tendency is related to the rise of the Internet of Things, a network of linked household gadgets. Whether it's a refrigerator that learns when you're low on eggs and orders some for you or a vacuum cleaner that can determine which areas of your floor require the most cleaning, AI is poised to take on tasks once held by a human.

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[11] Jacob Poushter, "Smartphone Ownership and Internet Usage Continues to Climb in Emerging Economies | Pew Research Center," Pew Research Center, 2016, https://www.pewresearch.org/global/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies/.

[12] Malaysian Communications and Multimedia Commission, "Internet Users Survey 2020," Malaysian Communications and Multimedia Commission, 2020, https://www.mcmc.gov.my/skmmgovmy/media/General/pdf/IUS-2020-Report.pdf.

[13] Ariel Ezrachi Maurice E. Stucke, *Virtual Competition* (London: Oxford University Press, 2016).

Article 6 of the European Convention on Human Rights (ECHR) and the Rules on Ethics lays down the standard for an acceptable AI practice in the context of the right to a fair trial. It needs, inter *alia*, a transparent process, the freedom of the parties to the trial and a well-founded decision. Therefore, the reduction in judicial complexity must be substantiated in a straightforward manner, hence providing litigants with a level playing field. On this basis, ECHR provides for a legal framework for the legal fraternity to enjoy the benefits offered by AI, within the acceptable legal norms and standards.

AI may be helpful to identify patterns in text records and files, such as when sorting huge quantities of cases or in complicated cases that contain a lot of detail. In the United States, an automatic investigation of computer evidence for discovery known as 'eDiscovery' utilises AI machine learning to help parties negotiate on the terms of the search and coding their use in negotiations. The court reviews the agreement and approves it. This is a procedure accepted by the courts of the United States and the United Kingdom for record investigation.[14] The method is easier and more precise than manual file analysis.

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[14] See *Anti-Monopoly, Inc. v. Hasbro, Inc*., 1995 WL 649934 (S.D.N.Y., Nov. 3, 1995) was the first case in which the AI approach was recognized as constitutionally legitimate. In *Da Silva Moore v. MSL Party & Publicis Groupe*, No. 11 Civ. 1279 (ALC) (AJP) (S.D.N.Y., Feb. 24, 2012), Peck decided that eDiscovery is an acceptable way of searching for relevant digital information in applicable cases. In *Rio Tinto PLC v. Vale S.A., et al*., 2015 WL 872294 (S.D.N.Y., Mar. 2, 2015) the judge approved the parties' stipulated review protocol for the technology assisted review (TAR) of documents, noting judicial acceptance of the practice when proposed by the parties and the emerging issue of disclosure of the seed set used to train the program. In *Hyles v. New York City, et al.,* Num. 10 Civ., the judge noted that "While TAR will be allowed before his court in cases, its use will not be mandated. The procedure was also recognised in the United Kingdom, in

AI that can offer advice is beneficial for individuals and prospective parties to a court case who are searching for a solution to their problem but do not yet realise what they can do. For legal practitioners, advisory AI may also be helpful where it does not only search for specific details but also answers a query. This advisory role can help people to resolve legal problems on their own thereby avoiding conflicts or potential court proceedings.

Hence, for AI to work, the legal details must first be made machine-processable for it to be able to scan legal information efficiently. When legal material, such as court rulings, is made machine-processable with textual readability, record structures, identity codes and metadata all accessible before release, AI can be used even more efficiently. In the context of formal terms, incorporating legal meaning would help improve the usefulness of AI in the judicial process.[15]

There is a great deal of curiosity amongst the legal fraternity when AI also has the potential to foresee court rulings, in other words, exercise 'predictive justice.' On this note, predictive justice has given rise to controversy since the result of the predictive algorithms is neither rational nor predictive. Much like the weather, court hearings are at risk of an unexpected outcome. The risks increase as the situation gets more difficult with more complexity and more challenges.

On this note, how receptive AI has been particularly in the Malaysian legal environment. The following part analyses the current development on the use of AI in the Malaysian judiciary and arising issues thereof.

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the High Court of Justice Chancery Division, U.K. in the case of *Pyrrho Investments Ltd v. MWB Property Ltd* [2016] (Ch).

15 A. D. (Dory) Reiling, "Courts and Artificial Intelligence," International Journal for Court Administration 11, no. 2 (August 10, 2020): 1–10, https://doi.org/10.36745/ijca.343.

AI in the Malaysian Judiciary

Even before the pandemic forced industries to embrace digital transformation, the Sabah and Sarawak courts had already launched a pilot AI tool as a guide to help judges with sentencing decisions. The High Court case of *Denis P. Modili v. Public Prosecutor*[16] is one that rocked the Malaysian judiciary recently. This case was an appeal against a Magistrates' court judgement dated 19.2.2020 about a sentence imposed. On February 20, 2020, an appeal notice was filed by the accused, expressing dissatisfaction with the verdict as it was decided through the application of AI. This case was the first to apply Al in sentencing and as a result, it marks a new history in Malaysian law.

The primary goal for applying AI in sentencing is to assist the Court in enforcing criminal sentences and to achieve greater consistency in sentencing.[17] The Court's internal database was used to compile the data, which covered the period from 2014 to 2019. The Al requires critical information referred to as 'parameters' to analyse and make recommendations on sentencing. For instance, Section 12(2) of the Dangerous Drugs Act 1952[18] requires the weight of the narcotics, the accused's age, and job history. Once these critical pieces of information have been entered, the Al system will make its own recommendations (for either a fine or

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16 BKl-83D-3506/12-2019.

17 Olivia Miwil, "Malaysian Judiciary Makes History, Uses AI in Sentencing," New Straits Times, February 19, 2021, https://www.nst.com.my/news/nation/2020/02/567024/malaysian-judiciary-makes-history-uses-ai-sentencing.

18 Act 234.

imprisonment) which will be expressed in the form of a percentage.[19]

Whichever proportion is greater, the recommendations presented are merely guidelines to assist the presiding judge in following the proper sentencing standards as established by prior precedents. This, in turn, will prevent judges from imposing inconsistent penalties and it is likely that any future appeals to higher courts will be minimised, as a unified standard of sentencing principles will be applied. In the future, the issue of the presiding judges' sentencing concepts being inadequate or excessive will be mitigated and/or avoided.

The accused's counsel objected to the punishment being determined using Al, citing violation of Article 5(1) and 8(1) of the Federal Constitution. Despite the accused counsel's protests, the court continued to employ Al as it was merely a guideline intended to assist the Court in remaining loyal to the spirit of a reasonable sentencing approach. In this case, the recommended percentage from the Al was ten (10) months imprisonment, based on a 54.31 per cent calculated probability. Such recommendation of the Al was read to the accused, and he was enlightened on the Al system before his plea of guilt was accepted for the second time to ensure that it was unequivocal and absolute. The Al method operates in such a way that the presiding judge may concur with or deviate from Al's proposed sentence. Finally, the presiding judge has sole authority over the accused person's sentence.

Accordingly, the court sentenced the accused to 12 months imprisonment notwithstanding that the artificial intelligence system recommended that the accused be sentenced to 10 months. The sentences were passed taking into consideration several factors, such as a very high rate of drugs

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[19] Per Magistrate Jessica Ombou Kakayun in *Denis P. Modili v. Public Prosecutor* at p.4-5.

cases in the area. However, on appeal to the High Court, the learned High Court judge allowed the appeal and reduced the sentence to 6 months. No reason was given for the reduction of the sentence and the issue of constitutionality was not addressed by the High Court.[20]

Accordingly, the Bar Council has expressed its reservation about the judiciary's decision to introduce a sentencing guideline *via* AI technology that evaluates and recommends sentences applicable to the lower courts. They expressed concerns about its implementation, stating that there was a possibility of judges undertaking a technical exercise during the procedure. Before inflicting punishment, human issues must be considered. The judge's thought process is critical after weighing the mitigating and aggravating aspects of a case.

The Office of the Chief Registrar, Federal Court of Malaysia explained that AI technology-based sentencing guidelines are designed to serve as a quick reference and guidance for Sessions Court judges and magistrates. From July 23, 2021, onwards, the AI system will be introduced in lower courts in Kuala Lumpur and Shah Alam, covering 20 common offences including physical and sexual assault, theft of property, drug possession, and traffic violations. The second phase of the system would be deployed from August to December 2021 and would contain additional offences but the nature of these offences have yet to be announced. The final step, which would take place between January and April of 2022, would comprise further recorded offences in the e-Courts System. According to the announcement, the system was created and implemented in Sabah and Sarawak last year. Meanwhile, Salim Bashir, the ex-

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[20] Foong Cheng Leong, "Bread & Kaya 27: 2020 Cyberlaw Cases: Cyberlaw in the Covid-19 Era - Public Prosecutor v Denis P. Modili," Foong Cheng Leong, June 4, 2021, https://foongchengleong.com/tag/public-prosecutor-v-denis-p-modili/.

president of the Malaysian Bar, stated that the system did not take off in the peninsula last year due to its flaws.[21]

Though Denis's case was the first case to challenge the valid use of AI for sentencing, we have yet to observe the extent of legal issues it poses when used in different legal contexts. What would be the situation when an autonomous car causes accidents and deaths? To what extent would the AI manufacturer (or perhaps the owner of the device) be attributed to civil or criminal liability for the predictive actions taken by AI? The next part addresses the issues and challenges brought by the use of AI, with special reference to negligence, vicarious liability, and crime.

Issues and Challenges

The applications of AI as a substitute for human judgement and decision-making range from the trivial (such as choosing which music to play next), —to significant matters. For example, in early 2017, Durham police force in the United Kingdom stated that it was launching a software called the 'Harm Assessment Risk Tool' to assess whether a suspect should be held in prison or released on bond based on a variety of facts.[22] Self-driving vehicles are one of the most well-known applications of artificial intelligence. Advanced prototypes are currently being

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[21] Olivia Miwil, "Malaysian Judiciary Makes History, Uses AI in Sentencing"; V Anbalagan, "Malaysian Bar Troubled over Judges Using AI for Sentencing | Free Malaysia Today (FMT)," Free Malaysia Today, July 24, 2021, https://www.freemalaysiatoday.com/category/nation/2021/07/24/malaysian-bar-troubled-over-judges-using-ai-for-sentencing/.

[22] Aatif Sulleyman, "Durham Police to Use AI to Predict Future Crimes of Suspects, despite Racial Bias Concerns | The Independent | The Independent," Independent, 2017, https://www.independent.co.uk/life-style/gadgets-and-tech/news/durham-police-ai-predict-crimes-artificial-intelligence-future-suspects-racial-bias-minority-report-a7732641.html.

tested on our roads by technology businesses like Google and Uber, as well as traditional automobile manufacturers such as Tesla and Toyota.[23]

Although self-driving AI is still under development, fatalities were reported in 2017, whereby a Tesla Model S that was on autopilot collided with a truck, killing its passenger. In 2018, an Uber test vehicle operating in autonomous mode struck and killed a lady in Arizona.[24] Although they may count as isolated test-drive accidents, one can never be assured that another similar incident may occur again in time. From unintentional to deliberate killing, the military around the world is developing semi- and wholly autonomous weapon systems. In the air, AI drones are capable to recognise, track, and kill targets without human intervention. According to a 2017 Chatham House Report, military worldwide are developing AI weapon capabilities that might enable them to perform operations and missions on their own.[25] Allowing AI to murder targets autonomously remains one of the most contentious possible applications.

The most fatal known use of autonomous ground-based weapons occurred during a friendly fire event, in which a South African artillery gun malfunctioned, killing nine troops.[26]

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[23] US Department of Transportation, "USDOT Automated Vehicles Activities | US Department of Transportation," US Department of Transportation, January 19, 2021, https://www.transportation.gov/AV.

[24] Gareth Corfield, "Tesla Death Smash Probe: Neither Driver nor Autopilot Saw the Truck • The Register," The Register, June 20, 2017, https://www.theregister.com/2017/06/20/tesla_death_crash_accident_report_ntsb/; Sam Levin and Julia Carrie Wong, "Self-Driving Uber Kills Arizona Woman in First Fatal Crash Involving Pedestrian | Uber | The Guardian," The Guardian, March 19, 2018, https://www.theguardian.com/technology/2018/mar/19/uber-self-driving-car-kills-woman-arizona-tempe.

[25] Turner, *Robot Rules: Regulating Artificial Intelligence*, 25.

[26] Tom Simonite, "'Robotic Rampage' Unlikely Reason for Deaths | New Scientist," New Scientist, October 19, 2007,

However, the authority denied that such an accident was caused by an automated artillery gun that went out of control as the decision to fire remained on the ground staff. In Israel and Japan, more advanced AI systems are being used to offer physical and emotional assistance to elderly people, as the world continues to adapt to ageing populations.[27] AI is also being utilised in medicine to assist clinicians in making clinical decisions. Other technologies under development and operation provide for automated diagnosis and therapy.

The next part examines specific legal issues that may occur due to the use of AI. We will first assess potential issues AI could cause as far as liability in negligence is concerned.

Issue on Negligence

Negligence occurs when one owing a duty of care causes behaviour that falls short of a necessary standard thereby inflicting harm to a victim. The well-known neighbourhood test was established in the House of Lords' landmark case of *Donoghue v. Stevenson.*[28] A manufacturer of bottled ginger beer was liable to compensate a woman who became unwell after opening an opaque bottle containing a dead snail. Even though there was no formal contract between them, the manufacturer owed a duty of care to anyone who may reasonably be anticipated to open the bottle. The House of Lords opined that one must use reasonable care to avoid acts or omissions that might reasonably be anticipated to cause injury to his 'neighbour'. Neighbours are:

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https://www.newscientist.com/article/dn12812-robotic-rampage-unlikely-reason-for-deaths/.

27 Accesssi, "Sex Robots vs. Sex Dating in Hongkong," Accesssi , December 6, 2019, http://www.access-ai.com/.

28 [1932] All ER Rep 1.

> *"persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called in question."*[29]

Numerous legal systems, including those of France, Germany, and Malaysia, have adopted this doctrine.

If an injury is inflicted, upon the use of AI, to determine liability in negligence - the first question is whether there is any person who owed a duty of care to refrain from causing or preventing the harm.[30] For example, the owner of a robot lawnmower may have a responsibility to anybody who is in his garden. The law may require the owner to use reasonable care to prevent the AI lawnmower from wandering into the garden of the next-door neighbour and destroying their beautiful flowers. Secondly, whether such duty of care has been breached. If the lawnmower's owner used reasonable care under the circumstances, in so far as what 'other reasonable owners'[31] would do, perhaps he will not be liable – although an injury was

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29 *Donoghue v Stevenson*, 1932 SC (HL) 31 (UKHL 26 May 1932)

30 The preferred test for the establishment of a duty of care in tort in Malaysia was the three-fold test of foreseeability, proximity, and policy considerations. See the Federal Court decision in *Pushpaleela a/p R Selvarajah & Anor v Rajamani d/o Meyappa Chettiar and other appeals* [2019] 2 MLJ 553.

31 It is established in the torts of negligence that the duty of care expected by law will depend on the reasonable man's test for that profession. See Federal Court judgments' in *Foo Fio Na v. Dr Soo Fook Mun & Anor* [2007] 1 MLJ 593; [2006] MLJU 0518; [2007] 1 AMR 621; [2007] 1 CLJ 229 concerning standard of care for orthopedic surgeon. See also *CIMB Bank Bhd v Maybank Trustees Bhd and other appeals* [2014] 3 MLJ 169 concerning duty of care of lead arranger for issuance of bonds. See also *Pushpaleela a/p R Selvarajah & Anor v Rajamani d/o Meyappa Chettiar and other appeals* [2019] 2 MLJ 553 concerning whether a lawyer owed duty of care to plaintiff as real owner of land when lawyer was acting for fraudster who claimed to be owner of land. See also *Government of Malaysia & Ors v. Jumat Bin Mahmud & Anor* [1977] 2 MLJ 103 concerning duty of care for teachers.

caused. In contrast, if the neighbour borrows the lawnmower without the owner's consent and subsequently damages her garden, the owner will have a solid claim that the damage was not triggered by his breach of duty of care.

Thirdly, did the breach of duty become the cause for the damage? If the lawnmower was rolling towards the neighbours' garden due to the owner's negligence but was stopped by a car that ran off the road and destroyed the neighbour's rose bed, the lawnmower owner may have breached his duty to keep the machine under control, but the damage would not have been caused by the breach due to the car driver's intervening act. In Malaysia, the court needs to consider whether the injury was reasonably foreseeable. While the expense to replace with new roses is obvious, the loss of prize money from a particularly expensive rose-growing competition that the neighbour would have participated in otherwise, is not. The owner is not the only one who may be subject to a duty of care in the scenario. This may equally be said of the AI's designer or the human (if any) who taught or programmed it. For instance, if the AI was designed with a fundamental defect - it mistook children for weeds to be killed, then the manufacturer or programmer may have violated the responsibility to build a safe robot.

The next part analyses legal issues that may arise due to the use of AI as far as vicarious liability is concerned.

Issue on Vicarious Liability

Legal systems employ a number of rules and procedures to establish accountability towards the principal for the conduct of his agent. Vicarious liability refers to the liability imposed on one person for the wrongful act of another based on the legal relationship between them, usually that of employer and employee. A principal who employs an agent to perform work on the principal's behalf is vicariously liable for acts performed by the person within the scope of his or her authority.

It does not matter that the act was not authorised. It is enough that the agent was put in a position to do the class of action complained of. If an unlawful act was done by the agent within the scope of his or her authority, it is immaterial that the principal directed the agent not to do it – he may still be vicariously liable for the agent's act.[32] Generally, the agent is also responsible for their damaging conduct, but the victim may elect to pursue a claim against their principal due to the latter's greater financial resources. After compensating the victim, the principal can typically pursue the agent for damages.[33]

Vicarious liability is distinguished from strict liability by the fact that not every act of the agent makes the principal responsible. Vicarious liability is formed when there exists a relationship between principal and agent, such as employment. Second, the wrongdoing must typically occur within the context of that connection. In *Mohamud v. WM Morrison Supermarkets plc*[34], the UK Supreme Court decided that a gas station owner was vicariously liable for the acts of an employee who assaulted a customer after the customer requested to use a printer. Crucial to the supermarket's responsibility was the existence of a 'close link' between the attack and the employee's position, even though the assault violated the employee's terms of the contract. For example, Germany requires that there be unlawful conduct by the agent to establish vicarious liability. Thus, if the agent did not behave improperly (e.g., due to a lack of foreseeability), the principal has no vicarious responsibility.[35]

As far as the relationship of vicarious liability for AI is concerned, the situation appears to be complex. For example, the Kuala Lumpur police department employed AI drones to

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[32] Colonial Mutual Life Assurance Ltd v Producers and Citizens cooperative Assurance Co of Australia Ltd (1931) 46 CLR 41 .

[33] Turner, Robot Rules: Regulating Artificial Intelligence, 98–101.

[34] [2016] UKSC 11.

[35] Turner, Robot Rules: Regulating Artificial Intelligence, 100.

conduct patrolling around the city.[36] The police chief may be held vicariously liable if the drone attacks a suspected member of the public while conducting its patrol. Even though the police force did not design the AI system that the robot utilises, they may be held most directly accountable for the drone's behaviour and/or benefiting from the drone. While the police force may not have intended or approved the attack, it happened within the limits of the drone's designated job. In some ways, the robot would be comparable to an intellectual agent whose actions may be assigned to a principal but not recognised as a full legal person. Of course, such liability should never simply be attributed to the police until a proper judicial process takes place.

Vicarious liability finds a compromise between recognising AI's autonomous agency and holding a currently recognised legal person accountable for AI's actions. Negligence and product liability often see AI as an 'object' rather than an agent or a legal person. On the other hand, vicarious liability functions to the contrary. , Unforeseeable autonomous actions of AI do not always sever the chain of causation between the person held accountable and the injury. As a result, the vicarious liability model is more suited to the specific tasks of AI that set it apart from other man-made entities.

The fact that vicarious liability is often restricted to the scope of the agent's activity is both a benefit and a disadvantage. This means that not all an AI's actions will be attributable to the AI's owner or operator. For instance, the more AI deviates from its defined responsibilities, the greater the likelihood of a responsibility gap that may break the causation.

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[36] Nor Azizah Mokhtar, "Dron Baharu PDRM Guna Teknologi Tinggi Terkini," BH Online, July 26, 2021, https://www.bharian.com.my/berita/nasional/2021/07/843663/dron-baharu-pdrm-guna-teknologi-tinggi-terkini.

In the short to medium term, this problem is less serious, if (predominantly narrow) AI continues to work within narrowly constrained boundaries. AI may be seen as a student, child, employee, or servant, whereas a human may be regarded as the teacher, father, employer, or master. Each of these models has unique peculiarities about the extent and boundaries of one party's obligation to the other.[37]

The next part considers legal issues that may arise due to the use of AI as far as criminal liability is concerned.

Liability in Crime

A person is not criminally responsible for an act prohibited by law unless he acted with a guilty or legally culpable mentality as per the Latin maxim *actus non facit reum, nisi mens sit rea.*[38] Criminal responsibility involves not just criminal conduct (or *actus reus*), but also a certain state of mind on the defendant's part: the guilty mind or *mens rea*. Criminal law primarily focuses on the accused's objective state of mind: what did the offender truly think and plan to do. As opposed to the law of torts that applies a subjective mental test - asking what a reasonable person would have done. The mental prerequisites for committing a crime vary by the legal systems and by type of crime. Occasionally, the *mens rea* necessary for conviction extends beyond the defendant foreseeing the consequences of her acts - to requiring that she wanted, wished, or willed the outcomes (or crime) to occur. A person who tosses a brick from a balcony is unlikely to be convicted of murdering the person on

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[37] Turner, *Robot Rules: Regulating Artificial Intelligence*, 101.

[38] Shamsuddin Suhor and Kho Feng Ming, "The Right to Defense in Strict Liability Offences," *Malayan Law Journal Articles* 5 (2018): xcii.

whom the brick lands unless she meant to cause death or serious injury.[39]

This brings us to consider the following point: how would humans be punished for the actions of AI? Where AI is found to have obeyed human instructions and committed an act that would constitute a crime if committed by a person, the AI's activities are often attributed to the human. If the human has the necessary mental condition, she will be found guilty. Gabriel submitted that the AI would be irrelevant as it would be equated to a weapon in the perpetrator's hands, like the knife used by a murderer.[40] This argument could find support from the case of *People v. Davis*[41] decided by the California Supreme Court. It held that:

> *"Instruments other than traditional burglary tools certainly can be used to commit the offense of burglary… a robot could be used to enter the building."*

On the other hand, UK and Australian jurisdictions have developed what is coined as the 'innocent agent' principle. Even if an entity is deemed to have intelligence, it may nevertheless be an innocent actor. If an adult instructs a kid to pour poison into another person's drink when he is not seeing, the adult who supplied the poison and instructed the child is

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39 The Crown Prosecution Service, "Homicide: Murder and Manslaughter," The Crown Prosecution Service, March 18, 2019, https://www.cps.gov.uk/legal-guidance/homicide-murder-and-manslaughter#intent.

40 Hallevy Gabriel, "The Criminal Liability of Artificial Intelligence Entities - from Science Fiction to Legal Social Control," Akron Intellectual Property Journal 4, no. 2 (2010), https://ideaexchange.uakron.edu/akronintellectualproperty/vol4/iss2/1?utm_source=ideaexchange.uakron.edu%2Fakronintellectualproperty%2Fvol4%2Fiss2%2F1&utm_medium=PDF&utm_campaign=PDFCoverPages.

41 958 P.2d 1083 (Cal. 1998).

likely to be charged with a crime, even if the child is not. The principle of innocent agency allows for the conviction of an offender who employs another to commit an offence. In the nineteenth-century English case of *R. v. Michael,*[42] a mother handed a bottle of poison to her baby's caregiver, claiming it was medication, and instructing her to administer it to the infant. The mother meant for the infant to die. The nurse refused, but her five-year-old son discovered the container and gave the deadly dose to the infant. The court held that while it was the son's intervention, not Michael's acts that caused the infant's death, the son was an innocent agent. Michael purchased the poison and attempted to have someone else administer it to her infant before. The court found her to possess the required *mens rea* to be held guilty. Michael was responsible for the death even if her acts did not directly cause it. This is an illustration of 'legal causation', in which her *actus reus* was the proximate cause of the poison being fed to the infant. A person is said to have committed an *actus reus* if their acts directly resulted in the forbidden consequence.

In these instances, the concept of innocent agency attributes the innocent child's deed to the mother. Because the mother meant for her kid to die and the act of poisoning by her unsuspecting agent is seen to be her own conduct, she is guilty of murder. Additionally, the concept extends to instances in which the principal is exempted from liability due to insanity or accident.[43] The principle serves as a supplement to complicity, allowing for conviction of an offender in instances where the guilt of an individual who committed the prohibited behaviour cannot be proven.[44]

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42 (1840) 169 ER 48.

43 Matusevich (1977) 137 CLR 633; Demerian [1989] VR 97.

44 David Perry, "Secondary Liability In The Criminal Law - Criminal Law - UK," Mondaq, June 24, 2011, https://www.mondaq.com/uk/crime/136506/secondary-liability-in-the-criminal-law.

In criminal law, vicarious liability functions comparably to tort law, subject to the same restrictions as laid forth above. One significant distinction between the two is that private law vicarious liability is not concerned with the principal's *mens rea*. It is concerned with the connection between the principal and agent. By contrast, under criminal law, the principal must typically possess the *mens rea* required to commit the offence. If the *mens rea* requirement is simply that the principal was careless about the injury (as opposed to intending harm), then such intent would be appropriate to prosecute him under relevant criminal offences.[45]

There is however another way to decode AI criminal liability proposed by Gabriel Hallevy. For example, an AI manufacturer develops an AI system to be used in a grilling machine and installed an algorithm that 'all meat will be cooked to perfection.' Due to a malfunction, the AI grill machine then burns down an entire home killing everyone. Gabriel submitted that in this situation, the manufacturer may face criminal charges for their irresponsible behaviour in developing such software. Gabriel Hallevy referred to this notion as the liability for "natural-probable-consequence" where it appears to be legally appropriate for circumstances in which an AI entity commits a crime without the programmer or user being aware of it, intending it, or participating in it.[46]

Although the approach seems to replicate the law of torts, however, the prosecution must prove his case 'beyond any reasonable doubt' and establish the case prima facie. An accused person is always accorded with the right to plead available defences, such as accident[47] or negligence[48] –

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45 R v. Jogee, Ruddock v. The Queen [2016] UKSC 8, [2016] UKPC 7.

46 Gabriel, "The Criminal Liability of Artificial Intelligence Entities - from Science Fiction to Legal Social Control," 13.

47 See Section 80 of the Malaysian Penal Code.

48 See Section 290 of the Malaysian Penal Code.

especially in the situation where AI went out of control inadvertently. Up to this point, AI has yet to be recognised as a 'legal person' holding them answerable for criminal actions. Hence, criminal liability will be attributable to its owner or programmer, whichever is closer in the causation chain. Until both *actus reus* and *mens rea* are proven to the satisfaction of the court, no accused person should simply be convicted for any criminal offences caused by AI.

CONCLUSION

Certainly, the advent of AI particularly in the legal fraternity has invited causes for concerns. Such is acceptable as the crux of the issue is that AI is not a legal entity, nevertheless it is being allowed to make important decisions affecting human lives. Algorithms employed by AI may be continuously updated, however, it does not change the fact that AI is not a legal person and whatever it decides, it will not be answerable for the decisions. This is precisely the reason why the use of AI in courts or even elsewhere should be limited to guiding human, without replacing the job of a human to think critically, evaluate, and make decisions. The strange concepts of blaming AI for civil or criminal offences it has caused must never be allowed to develop further as it may detach the owner's or programmer's chain of causation as well as liability. They may continue to conduct experiments, however, such must also be carried on with attributable liability. It is proposed that the appropriate liability for the use of AI should be tortious in nature, to strike a balance between the need for AI and attribution of liability. As much as we want technology to further improve, scientists and manufacturers generally develop AI for the good of mankind. Unless there is evidence to the contrary, AI that went out of control and caused a car accident must be dealt with in the realm of torts. In this manner, the legal fraternity will not be accused of hindering modern development. At the same time, AI can be used as a tool to elevate access to justice – cheaper, faster, and more effectively than ever before.

There should also be an ongoing consultative and collaborative process between the AI users and the software development team, stakeholder consultations, and development of an ethical framework. The role of humans in the justice system should never be replaced by AI, no matter how advanced technologies will become.