Digitalisation of Judiciary in Malaysia: Application of Artificial Intelligence in the Sentencing Process

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Abstract. A large aspect of treating people fairly is ensuring the fairness or the measure of sentences passed. In Malaysia, judges have started to use, even before the Covid-19 pandemic, artificial intelligence (AI) to aid in passing sentences for certain offences such as physical and sexual assault, theft, drug possession, traffic offences and others. While many welcome this incorporation of technology into the Malaysian judicial system, others worry it may lead to more injustice if human factors are removed from the sentencing process. This research attempts to discuss how AI is changing the legal landscape in the country, and where the line should be drawn when it comes to the involvement of AI in the judiciary. The method adopted in this research is the doctrinal legal research, which is mainly referred to as the "black-letter" methodology.

Keywords: Artificial intelligence · criminal justice · judges · sentencing

1 Introduction

Technology has changed the way we live, transforming everyday tasks that were once difficult and time-consuming, into something as simple as a click of a button. Things that once needed human hands to operate are now being done by machines with less than half of the time and energy it took a human to complete, for instance, airport facial recognition features, or spotlight search functions on computers. But how much do we even know about the machines that surround us? What are the implications of the ever-increasing usage of these machines in our everyday lives?

Artificial intelligence ("AI") refers to machines which are able to make decisions with human-like intelligence and tackle tasks that are arduous to do manually. Law firms globally are apprehensive about what lies ahead for the industry with the rise of AI but changes are already in motion and there is no escape [1]. This paper explores the potential and risks of artificial intelligence in Malaysian courts, its advantages and disadvantages, challenges and limitations and reforms for a more seamless incorporation of technology into our legal justice system.

2 The Use of AI in the Sentencing Process

Due to the rising number of Covid-19 cases in Malaysia and with the strict implementation of the Movement Control Order ("MCO") by the Malaysian Government, physical court hearings were replaced with online trials, taking place through video conferencing. As time goes on, a more systematic framework has been set out in settling cases online and in dealing with the exchange of the documentation between the parties through video conferencing, email, and the existing e-Review system[1] [2]. Many have viewed this unprecedented pandemic as a good opportunity for AI to be used as a judicial tool alongside the existing sentencing process. However, world over, the use of AI in the criminal justice system especially in the sentencing area is still very much a grey area [3].

In the Malaysian context, there have been considerable responses to the introduction and use of AI in the court systems. Among others, Malaysian lawyers have first shown their reluctance towards such an "unconstitutional" move to adopt AI technology to help judges in the sentencing process on the basis that, unlike human judges, a robot judge does not appreciate and consider the facts of each unique case, as well as the mitigating factors involved and this may eventually lead to a denial of justice [4].

Despite the voices raised, AI had in fact come into play much earlier before the pandemic in the Sabah and Sarawak Courts since February 2020 where these courts had already launched a pilot AI tool as a guide to help judges with sentencing decisions mostly in criminal cases involving possession of drugs and sexual offences because currently, those offences have the richest dataset for AI to operate [4]. In a recent case of *Public Prosecutor v Dennis P. Modili* [5]. The Magistrate's Court decided the case with the aid of the application of AI, but it did not follow the recommendation. This was the very first case in which AI was used in the sentencing process in Malaysia. Although the sentence was subsequently reduced upon appeal, no reason was given by the High Court [6]. The Right Honourable Tan Sri Dato' Abang Iskandar bin Abang Hashim, Chief Judge of Sabah and Sarawak had expressed his positive view towards the implementation of AI in the courtrooms mainly on the ground that it solves the major problem that "judges give different sentences for similar offences" [7] which in other words means AI-based judicial systems would produce more consistent and fair sentences to minimise the prejudice that might be caused to the potential accused persons.

Whereas in Peninsular Malaysia, several efforts have also been made to "activate" the AI technology in the lower courts for certain states. On 22nd July 2021, the Office of Chief Registrar of the Federal Court of Malaysia had issued a press statement releasing the sentencing guidelines for AI to be implemented in the Sessions Court and Magistrate's Court in Peninsular Malaysia. Pursuant to the guidelines, the implementation will be done in three stages starting from July 2021. The first phase with the use of AI will begin by involving 20 different offences in the Sessions and Magistrate Courts, which include 8 offences under the Penal Code (Act 574), 8 offences under the Road Transport Act 1987 and 4 offences under the Dangerous Drugs Act 1952. Whereas phase 2 will begin

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[1] The e-Review system is a mechanism that allows judges and judicial officers to conduct case management proceedings through an online messaging platform with lawyers.

in August by having another 30 offences from several other provisions of law. Lastly, the third stage will start between January to April 2022 involving the offences which are recorded in the e-Judiciary System [8]. Therefore, the AI system had been put on a "try" since 23rd July 2021 in the lower courts in Peninsular Malaysia.

2.1 How Does It Work?

With the use of AI, both prosecutors and defence lawyers alike are entitled to submit and present their case before the court by convincing the courts based on the precedents and the particular facts in the case in question which can be taken into consideration during sentencing. After the parties' submissions, the AI system will provide recommendations on sentencing to the judges [7].

These recommendations were provided based on the Court's internal database which was adopted to compile the relevant and critical data and information such as the precedent of cases or past-court decisions. These shall be referred as the "parameters" for the AI to base their recommendations on the possible extent of sentences that shall be passed. For instance, for imposing good behaviour bonds on the accused persons under Sect. 173A and Sect. 294 of the Criminal Procedure Code, it requires the considerations with regards to the age, background as well as the nature of the offences. All these critical pieces of information will be entered accordingly, and the AI will then make its own recommendations in the form of a percentage based on the information given. In addition to these critical pieces of information, the AI will also take into account five parameters which are so-called "mitigating and aggravating factors": the status of employment; age; marital status; nationality; gender; and past acquittals. The whole process only takes a few minutes [9].

Nevertheless, these recommendations have no binding effect on the judges but purely serve as guidelines to assist the presiding judges in ensuring that the proper sentencing standards and principles to be taken into account as established by the judicial precedents. Therefore, even with the implementation of the AI, the discretion of the judges has never been usurped or undermined [7].

2.2 Issues and Risks

Even though the AI system has started to come into play in the Malaysian judiciary system, it is undeniable to say that the operation of AI in courts is still in the experimental stage and its findings have never been conclusive when it comes to decision-making. It goes without saying that the implementation of the AI system in the criminal justice system would be followed by the emerging issues and risks. Even the Malaysian Bar Council had raised concerns towards the implementation of AI in the lower courts since human factors in the sentencing process are still paramount considerations to properly determine the merits of each case [9].

The most concerning issue perhaps, is the constitutional issue surrounding the use of AI technology in the field of criminal offences. As mentioned, many legal practitioners have strongly objected to the use of AI mainly on the ground that our Criminal Procedure Code, the governing statute for criminal procedures, does not provide a legal framework for the use of AI [4]. In Sabah and Sarawak, when the AI system was introduced, there

had been regular stakeholders' consultations with the legal practitioners as well as the legal association representatives [10]. However, in Peninsular Malaysia, based on the AI sentencing guidelines as issued by the Office of Chief Registrar of the Federal Court of Malaysia on 22nd July 2021, nothing suggests that proper consultations have been made with the stakeholders with regards to any suggested opinions and the improvements to the AI system before it was introduced into our criminal justice system.

Our system is lacking a comprehensive legal framework to enable AI technology to fully take over our sentencing process. It may operate as a "guide" or "parameter", but probably not as the judge itself. This is also due to the fact that there are many emerging problems and risks in this area that have not been properly addressed. For instance, certain subjective matters are incapable of being quantified based on mathematical terms. To illustrate, one of the variables in the AI tool is whether the victim in a rape case has "suffered psychological distress", and to this, there might be varying degrees of psychological distress. However, the algorithm only recognises the binary inputs of "yes" or "no". Another major unaddressed issue relates to the issue of negligence committed by AI. Who is held liable when a machine makes a mistake? If the AI system makes an unforeseen error in its calculations, how would the wrongly sentenced accused be compensated and who should such actions be brought against? [8].

Certainly, AI can be used as a tool to speed up the disposal of cases and to elevate access to justice – cheaper, faster, and more effectively than ever before. Nonetheless, there are long-debated risks and several issues that remain unsolved [11].

3   Recommendation

The global use of AI in the criminal justice system is growing quickly, from the DoNotPay chatbot lawyer mobile app to robot judges in Estonia adjudicating small claims, to robot mediators in Canada and AI judges in Chinese courts [11]. Malaysia is following this trend by introducing AI into the judicial system and although AI has its pros, it does come with its fair share of drawbacks which needs to be addressed before Malaysia can embark on a more AI-dependent judgement system.

3.1   Specialised Local Guidelines

One of the plausible institutional reforms would be to create specialised guidelines and a local framework which lawmakers, judges and lawyers alike can refer to when dealing with AI. The Bar Council's criminal law committee co-chair Muhammad Rafique Rashid Ali raised concerns over the fact that lawyers were not provided with any guidelines prior to the implementation of the said system [12]. Hence, Malaysia should follow in the footsteps of Europe, where lawmakers have produced the European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their environment [13], which clearly outlines 5 cores principles to be adhered to when using AI in the judicial system and other frequently asked matters. The said 5 principles are the principles of respect for fundamental rights, non-discrimination, quality and security, transparency, impartiality and fairness, as well as the principle of "under user control". With clearer guidelines and step-by-step explanations on the working mechanism of AI as a tool for

sentencing, perhaps Malaysian lawyers would be more inclined to accept it as a tool to facilitate justice.

3.2 Tighter Security Measures

Another area of reform would be in terms of the political reforms surrounding efforts to prevent data leaks from AI software and systems. The role of ethics in the conduct of electronic interactions between people and businesses raises challenges around the moral implications or unintended consequences that result from the coming together of technology and humans. Using AI in courtrooms would expose data from cases, including parties' personal information, financial statements, criminal track records and other sensitive information which, in the wrong hands, could lead to nefarious means [14]. In this regard, Malaysia has to ensure that its AI information systems are highly protected and less prone to cyber-attacks. Cybersecurity expert Professor Dr Selvakumar Manickam from Universiti Sains Malaysia said the country should produce more cybersecurity engineers and invest in acquiring the latest technology while constantly evaluating all public portals and websites in preparation to gear itself towards cyber resilience as the threat of a global cybersecurity breach continues to pose a major risk [15].

4   Closing Remarks

Technology, whether it is used for case management, web forms, or more complicated AI-based tasks, should only be introduced into the judicial process if proper accountability mechanisms are in place [16]. Malaysia is definitely going in the right direction by introducing AI systems into courts, but their level of involvement in the sentencing process should be limited, and should not completely take over the role of a human judge, unless and until it can be proven there is no bias in its decision-making.

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