In December 2023, HM Judiciary published Artificial Intelligence (AI): Guidance for Judicial Office Holders. Thinking across the next 40 years, examine the opportunities and threats of AI for the process of judging in the United Kingdom and the associated implications for barristers.

It is clear that artificial intelligence (AI) has the potential to revolutionise modern society, and the evidence – both from its implementation thus far and from its potential developments – suggests a particularly profound impact in developed nations and in professional industries.[1] The process of judging in the UK is, therefore, doubly vulnerable to AI, and may be completely unrecognisable in 40 years' time. This may be a good thing; it may be a solution to the backlog of cases in the criminal courts, it may speed up and further standardise justice, and it may even ease the judge shortage. However, all of these opportunities – and more besides – must be carefully balanced with the continued need for transparency and fairness.

Predicting what AI might look like in 40 years is a difficult, if not impossible task, given how quickly technological developments are made, but it is slightly easier to imagine how it will affect the process of judging. Whilst the technology may be available relatively quickly, its implementation in the justice system will be slowed by legal and ethical considerations as well as practical concerns (from security to user accessibility), with perhaps the biggest delay due to financial considerations, especially as the Government has recently cut funding for AI projects.[2] This essay will, therefore, draw on existing trends and technology to predict the opportunities and threats of AI in the short-, medium-, and long-terms (five, 20, and 40 years respectively).

I. Short-Term

The position currently occupied by HM Judiciary on the threats and opportunities of AI is one of cautious optimism; whilst many potential uses are highlighted, the focus is heavily placed on the "*key risks and issues*" and on ensuring its use is "*consistent with the judiciary's overarching obligation to protect the integrity of the administration of justice*".[3] The latter consideration is especially important given that some AI systems have been found to contain and magnify existing biases.[4] Whatever form it may take in the future, the justice system must always seek the equitable decision, and these stereotypes have the potential to undermine public confidence in its ability to do so. The Criminal

[1] Jan Hatzius and others, 'The Potentially Large Effects of Artificial Intelligence on Economic Growth' (*Goldman Sachs*, 26 March 2023) <www.gspublishing.com/content/research/en/reports/2023/03/27/d64e052b-0f6e-45d7-967b-d7be35fabd16.html> accessed 14 August 2024
[2] Zoe Kleinman, 'Government Shelves £1.3bn UK Tech and AI Plans' (*BBC*, 2 August 2024) <www.bbc.co.uk/news/articles/cyx5x44vnyeo> accessed 14 August 2024
[3] HM Judiciary, 'Artificial Intelligence (AI): Guidance for Judicial Office Holders' (2023) 2
[4] NSIT, 'Towards a Standard for Identifying and Managing Bias in Artificial Intelligence' (2022) <https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=934464> accessed 14 August 2024

Justice System, in particular, has been criticised for – amongst others – biases against black, Asian, and minority ethnic (BAME) groups.[5] If, therefore, it was to implement a system such as COMPAS – a US AI algorithm designed to calculate a defendant's recidivism likelihood that has been found to grossly mistreat black people[6] – then many of these criticisms will be reinforced, and the confidence in the CJS amongst this group will be yet further undermined. This flaw can "*compromise the equitable and ethical use of AI systems, making it difficult for AI to improve fairness in decisions*",[7] and it is for this reason that, until this problem is rectified, attention is quite rightly drawn to the threat of AI biases in the judicial guidance.[8]

Judges, however, need to be aware not only of potential risks, but also of the practical implications of current AI systems, which are perhaps best shown in *Harber v HMRC*,[9] in which the appellant used nine cases fabricated by ChatGPT. This case is a reminder to judges of the need for close scrutiny of what they are being told. Ms. Harber initially stated that the cases had been given to her by a friend, who worked in a solicitor's office, and it was partly due to the Tribunal Judge's concern that the AI origin was later identified. The good news for judges is that this did not require any great technical acumen or hypervigilance; the cases were quickly flagged because they could not be found on any legal website and because they were not in keeping with what the Tribunal Judge considered to be the settled caselaw on the matter. Of course, a judge may be more hesitant to reach this decision if the misleading information (or hallucination) is submitted by professional lawyers, who continue to stand by the fabricated cases even when questioned (as happened in *Mata v Avianca*).[10] Hopefully, this case is not replicated in the UK, but judges may still find it difficult to identify AI-generated judgments as large language models (LLMs) become better at replicating genuine decisions. It is at this point that the associated lesson for barristers from *Harber v HMRC* becomes clear. In order to prove definitively that the appellant's cases were non-existent, the litigator for HMRC carried out extensive research, even looking for cases with similar names several years either side of the cited date.[11] This level of care is essential when responding to litigants in person, but as AI generates increasing amounts of potentially believable misinformation, judges and barristers will need to work together to ensure this threat does not negatively impact the justice process.

[5] HM Government, 'The Lammy Review' (2017) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/643001/lammy-review-final-report.pdf> accessed 14 August 2024
[6] Pro Publica, 'Machine Bias' (2016) <www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> accessed 14 August 2024
[7] DSIT, 'Frontier AI: Capabilities and Risks – Discussion Paper' (2023) <https://www.gov.uk/government/publications/frontier-ai-capabilities-and-risks-discussion-paper> accessed 14 August 2024
[8] HM Judiciary (n 3) 4
[9] *Felicity Harber v The Commissioners for His Majesty's Revenue and Customs* [2023] UKFTT 1007 (TC)
[10] *Mata v Avianca Inc* 22-cv-1461 (PKC) (Southern District of New York 2023)
[11] *Harber* (n 9) 16

These cases also demonstrate perhaps the greatest threat posed by AI, and indeed all nascent technology: user ignorance. Both Ms. Harber and the American lawyers misunderstood that their preferred AI system, ChatGPT, is a generative LLM; they both thought it was, in effect, an advanced search engine. Such AI systems do already exist and are invaluable research tools, but conflating different types of AI creates the possibility of improperly informed judgments. Furthermore, judges "*should have a sufficient level of understanding about the AI they use to ensure accountability for decisions made with its assistance*",[12] as this knowledge allows them not only to check the AI's outcome but also to explain the result to the parties. This threat of ignorance does, however, come with an opportunity, which should be seized in the short-term; developing an effective training system and legal framework can help to mitigate existing threats and lay a pro-innovation foundation for future developments. Rishi Sunak's Government were beginning to advocate for the latter,[13] and guides and training courses for AI usage specifically by lawyers have already been created by universities and educational institutes around the world.[14] Before a formal training programme has been created, judges and barristers should make use of these courses and begin to acclimatise themselves by learning relatively easy skills that can facilitate better AI usage. The Solicitors Regulation Authority highlights the importance of knowing how to ask AI systems the right questions.[15] This 'prompt engineering' is a relatively straightforward skill to develop, and many legal research tools have integrated some form of AI for years and have guides to assist users.[16] Using the next few years to learn this skill will have three advantages. Firstly, it will help judges and barristers carry out more in-depth and efficient legal research. Secondly, it will ensure, as the Bar Council rightly emphasises, that ethical standards are upheld by, for example, adhering to legal privilege.[17] Finally, as AI systems continue to develop, users will need to have a greater knowledge of their capabilities, and having a preliminary understanding and skillset will make this easier. This is especially true if AI skills are incorporated in legal education; keeping up-to-date with AI in the

[12] David Leslie and others, *Artificial Intelligence, Human Rights, Democracy, and the Rule of Law: A Primer* (The Council of Europe 2021) 16
[13] DSIT, *A Pro-Innovation Approach to AI Regulation* (Cmd 815, 2023)
[14] *e.g.* Lizzy Lim, 'How In-House Lawyers Can (and Should) use AI and ChatGPT' (*The Law Society*, 2 November 2023); Harvard University, 'CS50 for Lawyers' (2023) <https://pll.harvard.edu/course/cs50-lawyers> accessed 19 August 2024
[15] SRA, 'Risk Outlook Report: The Use of Artificial Intelligence in the Legal Market (2023) <www.sra.org.uk/sra/research-publications/artificial-intelligence-legal-market/> accessed 14 August 2024
[16] *e.g.* Thomson Reuters, 'Prompt Engineering for Lawyers' (*Thomson Reuters*, 23 January 2024) <https://insight.thomsonreuters.com.au/legal/posts/prompt-engineering-for-lawyers-5-tips-to-get-started> accessed 19 August 2024; LexisNexis, 'How to Write Effective Legal Prompts' (*Lexis Nexis*, 15 March 2024) <www.lexisnexis.com/community/insights/legal/b/thought-leadership/posts/how-to-write-effective-legal-ai-prompts?srsltid=AfmBOoqmox9s9-tHMcQPa0IbBDN_NQqLP9csnCNwTZRqqzkrgUQEO9QV> accessed 19 August 2024
[17] The Bar Council, 'Considerations When Using ChatGPT and Generative Artificial Intelligence Software Based on Large Language Models' (2024) <www.barcouncilethics.co.uk/wp-content/uploads/2024/01/Considerations-when-using-ChatGPT-and-Generative-AI-Software-based-on-large-language-models-January-2024.pdf> accessed 14 August 2024

medium- and long-term can then form part of a judge's or barrister's continuous professional development, greatly helping to mitigate future threats before they become a problem.

II. Medium-Term

There are already several AI systems that are beginning to carry out administrative and low-level legal activities; Microsoft's Copilot, for example, can take notes and draft letters, and Luminance has created a LLM they claim can cut the time taken to review contracts and documents by 90%.[18] After twenty years of additional development, such AI systems will be able to carry out even more of a judge's or barrister's work with increased confidence. Currently, AI is not able to carry out some aspects of a barrister's work as they are categorised as reserved legal activities,[19] but concerns are already being raised about the suitability of the current statutory framework in an AI world; the Legal Services Board has, for example, pointed out that it is not empowered to provide oversight for AI applications and developers, even if they are employed in the legal sector.[20] Ensuring AI is properly monitored is essential to mitigate its risks, so the question is how many areas of legal work should it be allowed to carry out?

From the perspective of judging, allowing AI more control over administrative and other straightforward and low-risk tasks represents a huge opportunity. Filings would become faster and more accurate and barristers could begin to present cases prepared entirely by AI. This does not represent a huge risk; the process of making oral submissions would give the barristers (and judges) the opportunity to verify what the AI has produced. Perhaps the biggest risk in this process will be complacency. AI systems have already shown significant legal potential (with ChatGPT-4 being amongst the top 10% in the American Uniform Bar Exam) and so, after an additional 20 years of development, they may possess a near perfect knowledge of the law, meaning that both barristers and judges may be hesitant to question its accuracy.

This position may be further complicated for the judiciary if AI's abilities mean that it replaces barristers in court. This threat is more than a mere hypothetical; a combination of AI systems working together could conduct research and produce written and even oral submissions. It is for this reason

[18] Luminance, 'Corporate' (2024) <luminance.com/product/corporate.html> accessed 14 August 2024
[19] Legal Services Act 2007, s12 and sch 2
[20] Legal Services Board 'Delivering a Pro-Innovation Approach to AI Regulation – An Outline of the LSB's Approach' (Email to Michelle Donovan and Alex Chalk, 29 April 2024) <www.legalservicesboard.org.uk/wp-content/uploads/2024/04/Legal-Services-Board-update-on-AI-approach-April-2024-pdf.pdf> accessed 14 August 2024

that the legal sector is consistently considered one of the most at risk due to AI developments,[21] and one particularly nihilistic prediction suggests that almost 40% of the US industry will be completely replaced by AI.[22] Richard Susskind, the former technology advisor to six Lord Chief Justices, has taken this further, arguing that the "*widespread and pervasive development of disruptive technologies represents the end-game for the legal services although… there is no finishing line in the world of technology*".[23] If this prediction proves true, the process of judging will be unrecognisable; AI, and not barristers, will present cases from start to finish. It is not clear how AI would handle examinations of (human) witnesses and being questioned by AI may make a difficult process even more stressful, especially for vulnerable witnesses. This may be a perfect opportunity to connect AI with wider scientific advances so that the AI can take a physical, humanoid presence in the courtroom. However, in addition to ensuring AI does not negatively affect witnesses, it will still need to be checked for accuracy, and complete its own version of CPD to remain up-to-date and secure from external threats. These concerns place an exceptional burden on the only remaining humans in the legal process, the judges themselves. It should be noted that Susskind's prediction will see barristers recruited by IT development companies to ensure their AI systems have sufficient legal knowledge, and that this may alleviate some of the pressure from the judges. However, if this prediction proves true, judges will be the only mitigation of threats in a barrister-less, AI-led courtroom.

III. Long-Term

Perhaps the biggest threat posed by AI replacing barristers is one that will only become an issue in the long-term; without a pool of lawyers, familiar with court proceedings, on which to draw, it may become even harder to recruit suitable judges. Lawyers with experience training AI models to better understand the law are not necessarily best placed to apply the law to specific cases, meaning that they may be overly reliant on AI. One solution to this decreased pool of applicants is to appoint more widely from academia – as is already beginning to happen – but a more likely solution is the creation of AI judges.

Currently, completely judge-less cases are frowned upon by many countries and international organisations. The European Union is particularly concerned with this prospect and has banned decisions "*based solely on automated processing and which produces adverse legal effects*".[24] It is

[21] *e.g.* Department for Education, 'The Impact of AI on UK Jobs and Training' (2023) <https://assets.publishing.service.gov.uk/media/656856b8cc1ec500138eef49/Gov.UK_Impact_of_AI_on_UK_Jobs_and_Training.pdf> accessed 14 August 2024
[22] Hatzius (n 1) Exhibit 8
[23] Richard Susskind, *Tomorrow's Lawyers: An Introduction to Your Future* (3rd edn, Oxford 2023)
[24] Directive (EU) 2016/890 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the

easy to see why the EU and the UK may be hesitant to use AI in this way at present, but this concern is not shared by, for example, China, where citizens can use the social media app WeChat to access a digital, AI-led courtroom. This system is a significant development both in administrative terms (as it is cheaper and faster to manage), but also because it encapsulates the maxim that justice delayed is justice denied. The UK's (and the EU's) present concerns about AI-only justice may be alleviated by further development, but – perhaps more likely – by practical considerations; the Chinese example is a relatively cheap and efficient way to provide access to the justice system, so can help curtail or entirely remedy the UK's current shortage of judges, backlog of cases, and rising estate costs.

AI-only cases, therefore, represent a huge opportunity for the long-term survival of the justice system, but they are not without threats. Firstly, it is logical to assume that there will be a trial period when human judges are complemented by AI to ensure that it is reaching the correct decision, but as AI is trusted to do more, it "*becomes increasingly difficult for humans to take back control*".[25] This may lead to judges agreeing with AI because they feel they cannot do otherwise, and this is especially true if they wish to exercise their equitable jurisdiction. There can be no doubt that AI can apply a precedent to a similar situation, but it is not clear whether it will be able to do the same with vague equitable maxims and concepts; it will be very difficult, if not impossible, for a context-specific notion such as unconscionability to be distilled into a list of rules that AI can consistently apply, especially since humans cannot always agree. If, on the other hand, clear rules can be created and taught to AI, then they will likely need to be published in order to ensure transparent decision-making, and this creates the possibility of exploitation; people involved in court proceedings may gain an unfair advantage by maliciously targeting these principles thereby swaying the AI system in their favour. Of course, an argument could be made that the factors judges will consider today are well-known and a good barrister will present the facts in such a way as to induce the relevant emotions. It should, however, be pointed out that this is one of the advantages of having multiple judges, each applying their own equitable standard, and of reserving judgment, which allows time between a final decision and any emotional displays in the courtroom. Neither of these will be present in an AI-judge, leaving it open to the threat of undue manipulation.

AI-judges also have the potential to threaten the continued development of the law; even if the above concern about teaching AI vague principles proves unproblematic, it is still not clear whether it will be able to modernise, or identify and fix wrong turns in the law. The latter would require AI to exercise self-awareness and to know when it needs to revisit potentially its own decision. This process

prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA [2016] OJ L119/89

[25] DSIT, 'Frontier AI' (n 7) 26

is easier for humans, since each thinks in a unique way, but AI may struggle with this especially if the model remains in use for significant periods of time (as it will follow the same logic so will likely reach the same conclusion again). The question of modernisation may be slightly easier; a premium is placed on understanding social issues and changes overtime and significant changes will likely be made via legislation anyway. There are, perhaps, two solutions to these issues, either the appellate courts could remain human-led (as they may be better able to crystallise social trends and recognise mistakes) or AI-judges will have to rely heavily on academic works to identify areas of improvement. The first is likely to be the preferred option; having human judges in the higher courts may increase public confidence and does not exclude the use of academic opinions. However this issue is resolved, AI will have a significantly increased presence in the courtroom in the long-term, and while the process of judging may become AI-implemented, it may benefit from remaining led and supported by humans.

Conclusion

It is abundantly clear that AI has the potential to revolutionise the process of judging, and represents a huge opportunity to create a new model for the justice system that is better able to deal with issues plaguing the current version. However, this possibility and the current enthusiasm for AI should not mask the very real threats that it could entail.

Current guidance focuses almost entirely on the potential risks of AI usage, and this outlook is likely to be the responsible attitude, at least in the short-term; these systems are novel and its users are not necessarily correctly trained to maximise their potential whilst ensuring that the justice system is beyond reproach. However, as judges and the wider legal system become more accustomed to AI, more and more work can be entrusted to it, with cases being prepared and potentially even presented entirely by AI systems. Throughout this transitional period, barristers and especially judges will need to be exceptionally vigilant, always ensuring – both inside and outside of the courtroom – that AI systems are only implemented when they are ready. This process will be essential preparation if, in the long-term, AI replaces judges. Not having any humans in the judging process is a significant development, and care should be taken to ensure that, as a society, the UK is ready to make this change since, for all of its potential opportunities, the greatest threat AI poses is to the general public's confidence in the justice system.

Word Count: 2,889