Should legal disputes be termed by artificial, rather than human means?

From the manufacturing sector, to the online shopping industry, to our personal speakers and smartphones, artificial intelligence has infiltrated almost every aspect of human life.\(^1\) The growth of this technological phenomenon has led some to argue that AI should be taken a step further. Being theoretically impartial entities with none of the predisposition to human error, they appear to be obvious tool for the settlement of legal disputes. However, should artificial means truly replace humans at the decision-making stage?

Before tackling this question, it is important to set some parameters. Artificial means, which will be taken to be synonymous with AI, is defined as any machine or program “which exhibits traits associated with a human mind, such as learning and problem solving”.\(^2\) This broad definition generally includes all computers capable of machine learning.

As for legal disputes, complaints made in court or a similar legal process, can be resolved in three main ways — mediation, arbitration, and litigation. Only the latter two generally involve an official, jury, or judge rendering a final, legally-binding decision, and therefore will be this essay’s focus.\(^3\) According to Justice Robert J. Sharpe, the quality of a legal decision can be judged not only by how well the relevant legal norms have been interpreted and employed, but also the degree to which the judge has considered the context of the dispute. In addition, the opinion needs to be appropriately justified, such that “the losing [party knows] that the judge actually understood and grappled with the issues [they brought up]”.\(^4\) Practical concerns, such as the time and resources necessary for parties to reach their resolution, need also be considered. As such, legal decision-makers, both artificial and human, will be evaluated on three criteria: fairness, trustworthiness, and efficiency.

Before considering whether AI should, let us consider whether AI can. AI development is widely regarded to only be in its “narrow” stage, that is, consisting of machines which have been taught to perform a single, specific task, without being explicitly programmed to do so.\(^5\) For

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an AI to be capable of passing judgements, it would have to be able to assess the evidence presented, understand the perspectives of dispute stakeholders, and interpret necessary laws. This would then have to be written out in the form of a cogent judicial opinion. So far, even one of the most flexible and advanced AI systems available, the GPT-2, which has learned to perform a myriad of writing-related tasks, remains incapable of producing coherent text. It is clear that current AI technology cannot yet produce a machine which could come close to serving as an adequate substitute for humans, let alone a preferable one.

Of course, AI is a rapidly growing field, and the question cannot be considered only within the constraints of status quo. With the future of AI still up in the air, a straightforward yes or no cannot be given. Instead, the preconditions that must be met for them to be a preferable substitute, and their feasibility, must be considered.

Firstly, on the tenet of fairness. On the surface, machines appear to be a lot less susceptible to being swayed than humans. Judges and jury members can be bribed, blackmailed, or threatened. In certain countries, the possibility of electoral defeat may affect judicial officers’ decisions, especially for verdicts related to the death penalty. However, this ignores the possibility that computers are susceptible to hacking and tampering. The Centre for Strategic & International Studies has reported 23 significant cyber-attacks on various governments since the beginning of 2020 alone. When Estonia attempted to move its government services online, a vulnerability in its system almost caused 1.3 million citizens’ identification cards to be leaked. Whilst not affected by the promise of personal gain, machines are uniquely vulnerable to hostile takeovers, and the integrity of verdicts may likewise be affected.

On a deeper level, there is the problem of hidden bias affecting verdict fairness. Numerous psychologists agree that a human's worldview is strongly impacted by their culture, upbringing, and social norms. As such, so long as humans are in charge of determining legal disputes, resolutions

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cannot be entirely fair and free of bias. However, AI systems do not solve this problem. The American Bar Association has warned its members that AI may “produce results that are materially inaccurate or discriminatory” as a result of flawed inputs. Research by Propublica discovered that algorithms used to predict criminal recidivism rates were more likely to predict that black Americans would re-offend than their white counterparts, regardless of the offenders’ individual criminal history. Therefore, artificial means may not entirely be divorced from human ones, and may act as a proxy for human biases to seep into the judicial system without contest. On the human end, however, biases can be monitored and ameliorated upon identification. Awareness of potential prejudices therefore improves the quality of verdicts, as opposed to the false sense of complacency AI may offer. Fairness also increases when different opinions are expressed and discussed, as in juries. Therefore, humans’ ability to reflect and independently learn from their mistakes continue to make them preferable to AI when deciding legal disputes.

However, fairness is not enough; plaintiffs and defendants also need to be reasonably assured that the judge has adequately addressed their concerns, and have trust in the system. Here, humans clearly have the upper hand. To be sure, 47% of those surveyed in the United Kingdom have stated that they felt that the UK justice system was unfair, but this pales in comparison to the 75% who, in a different survey, noted that they would not trust a decision made by an AI system with regards to an applicant’s suitability for a bank loan. Juries fare even better; less than 42% of Americans surveyed believed that juries unfair all or most of the time. Whether by the virtues of collaborative decision-making, or the clearly-expressed opinions of a single person, both systems offer a sense of logic, trustworthiness, and transparency that AI does not. This problem is exacerbated by the difficulty in reverse-engineering the process required for machines to learn, making it difficult to root out causation-correlation fallacies when determining the validity of an AI-

decided resolution. Such opaqueness makes appeals, a legal cornerstone in ensuring all parties are adequately represented, near impossible. Therefore, unless public opinion on AI is radically shifted, and a way of transparently presenting an AI system’s internal train of logic is presented, humans remain the preferable option.

Lastly, there is the question of efficiency. Here, it is clear why so many have become proponents of using AI. Capable of processing large chunks of information at breakneck speeds, examining every detail without the threat of human error, AI has already been deployed in various legal start-ups to conduct contract review, with some arguing that it could negate the need for paralegals very soon. China and Estonia have both launched some form of AI-enabled judge. The former, which has a system based on WeChat, has already handled almost 120,000 different cases. The mobile court has mainly been deployed to consider cyber-related crimes, and could potentially reach the millions who live without easy access to the country’s courts. However, there is a catch. All major decisions are made by human judges, making the machines simply aides. While AI might be faster, there are clearly some key advances that need to be made before humanity is able to trust it to make life-changing decisions.

In conclusion, unless a hack-proof, self-aware, and transparent AI system is developed, legal decision-making should still rest in human hands. As unlikely as such a system sounds, it may not be impossible. New investigations in Seldonian algorithms, for instance, have successfully curbed gender bias in grade point average predictions by explicitly programming the computer to recognise sexism as an undesirable result, suggesting bias can be mitigated over time. The answer to whether AI can replace humans as our judges and juries is not no, it is simply, for the foreseeable future, not yet.

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22 Ibid.
Bibliography


